21 STATISTICS AND DATA INTERPRETATION

Data Interpretation (DI) is an important section today in all competitive examinations especially in objective type examinations. In most examinations a large number of questions are asked on Data Interpretation/Data Analysis. A good score in DI consolidates performance altogether. Sound knowledge of quantitative techniques and skills are pre-requisites for a good performance. It tests one's ability to analyse and interpret data presented numerically in various forms. Questions are asked on the data given/ shown in the diagram. The *thumb rules* are to read the problem fast but carefully, comprehend and interpret it simultaneously. Once the data are well grasped, the questions that follow in the set take very little time for solution.

Data may be presented in the form of tables, graphs or diagrams. Tables consist of precise numerical figures whereas diagrams give only an approximate idea. However, diagrams and graphs have the advantage of showing trends in the data. While there is no clear line of demarcation between diagrams and graphs, we may note the following distinction between them :

(*a*) A graph represents a mathematical relationship whereas a diagram does not.

(*b*) Diagrams do not add anything to the data while graphs are useful in statistical analysis.

(*c*) Graphs are considered more appropriate than diagrams for presenting frequency distribution and time series.

In our everyday life we come across graphs, tables and other types of numerical data in newspapers, magazines, periodicals, journals, information bulletins etc. These data may relate to the cost of living, cricket average, profits of a company, temperature of cities, expenditure in various sectors of a five-year plan and so on.

The term "data" means "information". However, the dictionary meaning of the term "data" is "given facts." Data may be of two types : Primary data an d Secondary data.

PRESENTATION OF DATA

As soon as the work related to collection of data is over, the investigator has to find ways to condense them in a tabular form in order to study their salient features and utilise them in a convenient way to serve the purpose for which they were collected. Such an arrangement of data collected is called **Presentation of Data.**

The raw data can be arranged in any one of the following ways :

(a) Serial order or alphabetical order

(b) Ascending order

(c) Descending order

Marks	No. of Students
10	1
20	1
32	2
36	2
40	3
50	4
56	1
60	5
70	2
80	2
88	1
92	1
Total	**25**

The table given above shows the number of students securing a particular number of marks. For exmaple, 5 students secured 60 marks each, 4 students secured 50 marks each and so on. The quantity that we measure from observation to observation is called a **Variate**. For example, in this illustration, the marks obtained are called **variates.** The number of students securing a particular marks is called the **Frequency** of the **variate**. The table given above is, thus, called the **Frequency Distribution Table for ungrouped data**.

The presentation of data can be further condensed into **Classes** or **Groups,** to bring out certain salient features of the data. In this type of presentation of data all observations are divided into groups. These groups are called **Classes** or **Class Intervals.**

Let us present the above data into classes as follows :

Marks	No. of Students (Frequency)
1 - 10	1
11 - 20	1
21 - 30	—
31 - 40	7
41 - 50	4
51 - 60	6
61 - 70	2
71 - 80	2
81 - 90	1
91 - 100	1
Total	**25**

This is called the **Frequency Distribution Table** or **Frequency Table for grouped data**. The class 1-10 means the marks obtained between 1 and 10 including both 1 and 10. The number of observations falling in a particular class is called the **Frequency of that Class** or **Class Frequency**. Thus, the class 31-40 has frequency 7 and the class 51-60 has 6 as class frequency. Frequency Table

is a better way of presentation of data as compared to the earlier ones since simply by looking at it we can draw the conclusion that majority of the students obtained marks in the range 31-60. In other words, the group of students under consideration is an average group.

The above table shows the number of students obtaining marks between the **lower limit** and the **upper limit** of the various class intervals. The lower limit of the first class interval is 1 and the upper limit is 10. The number of students who have secured marks in this class interval, i.e., from 1 to 10, is 1. Similarly, the number of students securing marks from 31 to 40 is 7.

While classifying according to class-interval like this, we use the following technical terms :

(i) Class limits : The limiting values of the boundary of the classes into which the given data are classified are called class-limits. The smaller limit of every class is called the lower limit and the higher limit is called the upper limit.

(ii) Class-interval : The group constituted by the two limits is called class-interval.

(iii) Width of the class-interval : The difference between the lower and upper limits of any class is called the class interval.

(iv) Mid-value : The mean of upper and lower limits is called the mid-value of the class-interval.

$$\text{Mid-value} = \frac{(\text{Upper class limit} + \text{Lower class limit})}{2} \text{ or, } \frac{(\text{True upper limit} + \text{True lower limit})}{2}$$

(v) Frequency of the class-interval : The number of observations falling within a particular class-interval is called its frequency.

Methods of Classification according to Class-Intervals :

(i) Exclusive Method : In this method the upper limit of one class is equal to the lower limit of the next class. Any item equal to the upper limit of any class is excluded from that class but included in the subsequent class. For example, if a student has secured 40 marks in the above example, then his marks have been taken in the class-interval 40-50 and not in the class-interval 30-40.

(ii) Inclusive Method : In this method any item equal to the upper limit of any class is included in that particular class and therefore it is known as inclusive method.

TABLES

Table is often used to present a set of numerical data. It helps the person to make comparisons and draw quick conclusions. It provides the reader greater objectivity in the data. Tabular presentation makes complicated information easier to understand. Its another advantage is that one can see all the information at a glance.

Tabular presentation usually consists of a table title followed by, columns and rows containing data. While looking at the table, carefully read the table title and headings/nomenclature of the columns and the rows. The table title gives a general idea of the type and objective of the data presented. The column and row nomenclatures indicate the specific kind of information contained in them respectively.

We present below an example of tabular presentation of annual expenditure of 5 families during the last 4 years.

Annual Expenditure of 5 families *(in Rs. Thousands)*

Years → / Families ↓	2005	2006	2007	2008
A	35	50	55	60
B	50	55	60	70
C	40	60	65	75
D	30	40	45	50
E	45	50	70	80

MEANING OF TABULATION

Tabulation is one of the most important devices for the presentation of the data in a condensed and comprehensive form. It attempts to furnish the maximum information contained in the data in a minimum possible space without minimising the quality and usefulness of the data.

A statistical table is the logical listing of related quantitative data in vertical columns and horizontal rows of numbers with sufficient explanatory and qualifying words, phrases and statements in the form of titles, headings and notes to make clear the full meaning of data and their origin. Thus, a table is a systematic presentation of statistical data in horizontal rows and vertical columns according to some salient features.

MERITS OF TABULATION

(i) Tabulation is the next stage after collection and compilation of the data.
(ii) It simplifies the data.
(iii) It gives a general idea of trend and pattern within the data
(vi) It provides a gateway for further statistical analysis and interpretation.
(v) In tabulation comparable data are kept close, so that a comparable study of these data becomes easy.
(vi) It makes the data suitable for further Diagramatic and Graphic representation.
(vii) It saves time and space, as maximum information is expressed in a small space without repetition.

PARTS OF A TABLE

Though the various parts of a table depend on the nature of the data and purpose of the investigation, the following features generally, form the parts of a statistical table :

(i) Table Number : Usually placed at the top of the table either in the centre above the title or on the side of the title, it serves to identify the table for future reference.

(ii) Heading or Title : Every table is provided with a suitable title, which usually appears at the top of the table. It is brief, simple, unambiguous, complete and self-explanatory, so that a first hand idea of the data set can be obtained from it.

A title describes the nature of the data, the place of relation, the time period and the source of the data.

(iii) Head Note : It is a sort of a supplement to the title. If required, it is given just below the title to provide additional information regarding the contents of the table. The head note is usually enclosed in brackets. For example, the units of measurement are usually expressed as head note as '*in kilometres*', '*in crores*', '*in Rupees*'; etc.

(iv) Columns and Rows : Columns are vertical arrangements, whereas rows are horizontal arrangements. The number of rows and columns is suitably taken keeping in view the data under consideration.

(v) Captions : Captions are the designations for vertical columns. They are placed in the middle of the columns. They briefly express the contents of the columns.

(vi) Stubs : Stubs are the designations for horizontal rows. They are placed to the left of the rows. They briefly express the contents of the rows.

(vii) Body : The data when arranged according to the designations given in the rows and columns, form the body of the table. It contains the numerical data to be presented to the readers. In order to increase the utility of the table, totals are genrally given for each separate category either against the rows or below the columns.

(viii) Foot Note : If some additional information regarding the data is required for their complete description, foot notes are used for this purpose. As the name suggests, they are placed at the bottom of the table.

(ix) Source Note : The source of collection of data is mentioned below the foot note so that it must be known from where these have been taken. The source note is used if the data are of secondary nature.

TYPES OF TABLES

Statistical tables are formed on the basis of purpose, originality and construction. Keeping in view the present pattern of questions asked in competitive exams of today, we will limit ourselves to the study of tabulation on the basis of construction.

This type of tabulation can be divided into two categories, namely :

(i) Simple Tables

(ii) Complex Tables

(i) Simple Tables : In a simple table, only one attribute (quality) or speciality of the data is presented.

(ii) Complex Tables : In a complex table, more than one attribute or characteristic of the data are presented.

The complex tables are of three types :

(a) Two-way Tables

(b) Three-way Tables

(c) Manifold Tables

(a) Two-Way Tables : They furnish information about two inter-related characteristics of a particular phenomenon. In these tables, caption or stub is classified into two sub-headings.

(b) Three-Way Tables : They furnish information regarding three-inter-related characteristics of a particular phenomenon.

(c) Manifold Tables : A manifold table gives the information of a large number of inter-related characteristics of a given phenomenon. For example, the distribution of employees in State Bank according to gender (sex) age-group, year and grades of salary is a manifold table.

Now we are fully acquainted with various types of tables and their contents. While interpreting the data given in tabular form we come across different mathematical tools of analysis namely, percentage, ratio and average etc. Now we will briefly introduce to each of these tools.

Percentage : It is a fraction whose denominator is 100 and the numerator of such a fraction is termed as rate per cent. Thus the term per cent means for every hundred. It should be noted that in common parlance, per cent and percentage are used interchangeably.

Percentage as an Operator

1. Let us discuss x% of y.

This operation can be broken into two parts :

(i) $x\% = \frac{x}{100}$

(ii) 'of' means multiplication and hence can be replaced by multiplication sign '×'.

$\therefore$ x% of y means $\frac{x}{100} \times y = \frac{xy}{100}$

Let x% of $y = z$

$$\frac{xy}{100} = z$$

This equality involves 3 variables x, y, and z. If the value of any two variables out of the three are known, the value of the third variable can be easily determined.

2. Per cent change (Increase or Decrease)

$$\text{Per cent change} = \frac{\text{Final value} - \text{Initial value}}{\text{Initial value}} \times 100$$

or,

$$\text{Per cent change} = \left(\frac{\text{Final value}}{\text{Initial value}} - 1\right) \times 100$$

It is to be remembered that change per cent is always calculated with respect to the initial value. Hence, it is the initial value which is taken as reference value for finding % change.

$$\therefore \%\ \text{change} = \frac{\text{Difference between two quantities}}{\text{Reference Value}} \times 100$$

Further, change involves both increase as well as decrease. Therefore, we should follow the sign convention given below :

Sign convention :+ for increase and – for decrease

Ratio : A ratio is a comparison of two quantities by division. In other words, ratio of two quantities represents the number of times one quantity contains another quantity of the same kind. Since ratio is an abstract number, the two quantities that are being compared must be expressed in the same unit. Thus, production of rice in tonnes can be compared with consumption of rice in tonnes. We cannot compare the production of rice in tonnes and production of cotton in bales.

Averages : The inherent inability of the human mind to grasp in its entirety a large body of numerical data compel us to seek relatively few constants that will adequately describe the data. Average is one such constant. These are the typical values around which other items of the distribution congregate. They give us the gist of huge numerical data. Here, we will describe only arithmetic average or mean.

The average or mean of a number of quantities of the same kind is their sum divided by the number of those quantities.

Let x_1, x_2, x_3, ..., x_n be the n values of x. Their average is denoted by $\bar{x}$ and is given by

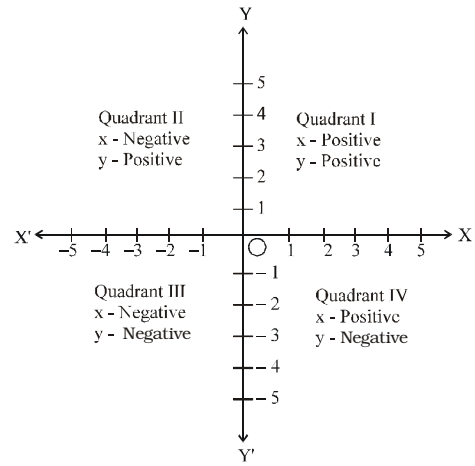
$$\bar{x} = \frac{\text{Sum of observations}}{\text{Total number of observations}}$$

or, $$\bar{x} = \frac{x_1 + x_2 + x_3 + \ldots\ldots + x_n}{x_n}$$

LINE GRAPHS

Line Graphs are more obvious, precise and accurate than the diagrams and can be effectively used for further statistical analysis, viz., to study slopes, rates of change and for future inference. They can be used to study the relationship between the variates under study. Line Graphs are drawn on 'graph-paper'.

Construction of Line Graphs : Line Graphs are drawn on a special paper called 'graph paper' which has a net work of horizontal and vertical lines forming squares, In the graph paper two straight lines are drawn at right angles, intersecting each other at a point O (say) known as origin. The horizontal line is known as X-axis and is usually denoted by XOX'. The vertical line is known as the Y-axis and is usually denoted by YOY'. In this way the graph is divided into four parts called quadrants. In practice, only the first quadrant is used unless negative quantities are to be displayed. The distances measured to the right of origin along X-axis are taken as positve where as the distances measured to the left of origin along X-axis are taken as negative. Along the Y-axis, the distances measured above the origin are taken as positive where as the distances measured below the origin are taken as negative. Any pair of the values of variables is represented by an ordered pair (x, y) where x generally represents the value of independent variable (x-coordinate) and y represents the value of dependent variable (y-coordinate).



Line graphs are used to show how a quantity i.e., dependent variable changes with change in independent variables. Very often the quantity is measured as time changes.

ADVANTAGES OF GRAPHS

1. Graphs are visual aids that give a bird's eye view of numerical data.
2. Graphs, being attractive, leave a much lasting impression on mind.
3. In the construction of graph, generally, a graph paper is used which helps us to learn the mathematical relationship between the two variables.
4. Graphs are clear, precise and accurate and help statisticians in the study of slopes, rates of change and estimation.
5. Graphs reveal the trends and also exhibit the way in which the trends change.

BAR DIAGRAM

BAR DIAGRAMS are one of the simplest and the most common devices used for the presentation of statistical data. They consist of a number of equidistant rectangular bars, one for each category of the data in which the magnitudes are represented by the length or height of the rectangles, whereas width of rectangles are arbitrary and immaterial. The following points should be takes into consideration while drawing bar diagrams :

(i) All the bars drawn in a diagram are generally of uniform width which depends on the number of bars to be constructed and the availability of space.

(ii) To make the bar diagram attractive and graceful, uniform space is given between different bars.

(iii) As the height of the rectangles are taken proportional to the magnitude of observations the scale is selected keeping in view the magnitude of the greatest observation.

(iv) All the bars are constructed on the same base line.

(v) Bars drawn may be vertical or horizontal.

(vi) Vertical bars are generally arranged from left to right.

(vii) Horizontal bars are generally arranged from top to bottom.

(viii) Generally, the figures represented by the bars are written at the top in case of vertical bars and at the right end in case of horizontal bars. It facilitates a reader to draw a precise idea of the value.

(ix) A suitable title is given at the top of the diagram which indicates the subject matter and various other facts depicted in the bar diagram.

(x) Sometimes, footnotes are given at the left hand bottom of bar diagram to explain certain facts, not mentioned in the title.

(xi) A brief index is also given at the right hand top of bar diagram which explains the various types of shades, colours or designs used while constructing bar diagrams.

TYPES OF BAR DIAGRAM

The various types of bar diagrams which are most commonly used are mentioned below :

1. Simple Bar Diagram
2. Sub-divided Bar Diagram
3. Percentage Bar Diagram
4. Multiple Bar Diagram

1. SIMPLE BAR DIAGRAM

Simple bar diagram is the simplest and the easiest of the bar diagrams. It is used to represent only one dependent variable. The values of observations are shown by means of bars which are of equal width but of varying heights. As discussed earlier the magnitudes of variables are represented by the heights of the rectangles.

2. SUB-DIVIDED BAR DIAGRAM

A simple bar diagram can represent only one characteristic at a time. For example, the total number of students studying in a University for the last ten years can easily be expressed by simple bar diagram, but it cannot show the faculty wise distribution of students. This limitation of bar diagram is overcome by subdivided bar diagrams. These are used to represent the breakdown of the total into its component parts. First of all, a bar representing a total is drawn. Then it is divided into different segments, each segment representing a given component of the total. Different colours, shades, designs etc. are used to distinguish the various components. An index is given to represent the various components. To facilitate comparisons, the order of the various components in the different bars is same.

3. PERCENTAGE BAR DIAGRAM

Sub-divided bar diagram presented graphically on percentage basis is termed percentage bar diagram. They are specially useful for the diagramatic representation of the relative changes in the data. A percentage bar diagram is used to highlight the relative importance of the different component parts to the whole. Here all totals are taken as 100 and are represented by bars of same length. The component parts are expressed as percentages of totals. The other rules regarding index, shade or colour, thickness are the same as in simple or multiple bar diagrams. The absolute changes in the component parts or total are not shown in the diagram.

4. MULTIPLE BAR DIAGRAM

When a combination of inter-related variables are to be presented graphically, multiple bar diagrams are used. These are extended forms of simple bar diagrams. Here, many aspects of the given data are presented simultaneously and as such are very useful for direct comparison between two or more phenomena by representing them with separate bars of different shades or colours. Here an index is given to explain the shades and colours used. The bars for different characteristics/ phenomena for a particular year are drawn adjacent to each other. Proper and equal spacing is given between different sets of the bars.

HISTOGRAM

It consists of a set of continuous bars drawn adjacent to each other. It is generally used to represent frequency distribution among different class intervals of the data presented in tabular form. Areas of bars are proportional to the corresponding class frequencies.

Cumulative graphs : These are usually bar or line graphs where the height or length of the bar or line is divided proportionately among various quantities represented in the graph. The representation of quantities may be done in terms of either percentage of the total or in absolute figures. Thus, a cumulative graph may be conveniently used for making comparisons. These are also called sub-divided graphs.

CIRCLE GRAPHS OR PIE-CHART

A pie-diagram is a pictorial representation of the numerical data by non-intersecting adjacent sectors of the circle such that area of each sector is proportional to the magnitude of the data represented by the sector.

Just as sub-divided and percentage bars are used to represent the total magnitude and its different components, the circle representing the total may be divided into different segments representing certain proportion or percentage of the different components/parts to the total. Such a sub-divided circle diagram is called pie-diagram because the entire graph looks like a pie and the components resemble slices cut from a pie.

Some Important Points

(i) Different sectors of a pie-chart represent various component parts.

(ii) Each of the component values is expressed either as a percentage or fractional ratio of the respective total or as sectoral angle of the respective total.

(iii) Since the total angle at the centre of the circle is 360º, the total magnitude of the various components is taken to be equal to 360º. In other words, 360° is taken as 100% and vice versa.

(iv) Since 1 per cent of the total value is equal to $\frac{360}{100}$

= 3.6º, the percentage of the component parts can be converted to degrees by multiplying each of the them by 3.6.

(v) The degrees represented by the various component parts of a given magnitude can be obtained without computing their percentage to the total value as follows :

Degree of the any component part

$$= \frac{\text{Component value}}{\text{Total value}} \times 360°$$

In DI section of the question paper, the target should be to attempt all questions as skipping them would amount to losing precious scoring opportunities. There are two approaches to arrive at the solution. One is to work on the data to arrive at the correct answer. The other one is the Elimination method which requires working backwards by eliminating the wrong choices. Though the elimation method is more time consuming, it may still be preferred where direct solution involves enormous calculation.

At times, examiners pose rather difficult data sets at the beginning of the sections. These are intended to be 'SPEED BRAKERS' which take away much of precious time. Therefore, as a rule, scan the whole section quickly before actually attempting the questions and start with easier part of the section.

In some exams, data are presented in more than one table or graph. The objective is to test not only quantitative skills but also corelational and analytical ability. Recently, in some exams the questions in this section are being framed in caselet (paragraph) form, beginning with probability and reasoning questions. It is left to the reader to study the case, sort out requisite data and arrange it in a suitable form for meaningful interpretation. It is best to arrange data with rough sketch to hasten comprehension.

Important Tips : These will help in saving time, reducing mistakes and finding solution easily.

1. Read the table title, nomenclatures of columns and rows.
2. Get a general picture of the information by looking at the entire table or graph.
3. Simplify the questions being asked. Break down lengthy questions into smaller parts.
4. Use only the information given for finding solutions. Select the appropriate data for answering a question.
5. Eliminate impossible choices.
6. Avoid lengthy calculations.
7. Try to interpret through trends of the data in the graph. Whenever possible, try to answer the questions by visualizing rather than by computing.
8. Don't go for exact calculation, unless necessarily required.
9. Approximate evaluation and comparision greatly simplifies solution.
10. Where calculation is required, prefer approximate values at the first stage.
    Go for exact calculation where values are close and require exact answer.
11. Be careful to use proper units.
12. Make correct use of your knowledge of basic mathematical rules, principles and formulae.
13. Don't confuse in decimals and percentages. For example, 0.5% = 0.005.
14. Use pencil or straight edge of the answer sheet to read the graph and find approximate values.
15. Focus your answer on the question actually asked and not on what the question should be in your opinion.
16. Never do anything that is unnecessary.
17. Last, but not the least, make sure that the answer is sensible and reasonable.

Thumb Rules for Simplification :

1. Round off the figures atleast at first stage of calculation or elimination.
2. Remembers, 50%, = $\frac{1}{2}$, 25% = $\frac{1}{4}$, 75% = $\frac{3}{4}$

   20% = $\frac{1}{5}$, 40% = $\frac{2}{5}$, 60% = $\frac{3}{5}$

   80% = $\frac{4}{5}$
3. To get 10% value, leave the unit digit of the number or round it off.
   Similarly, to get 1% value, leave the two extreme right digits followed by suitable rounding off.
4. 5% is taken either as half of 10%. or five times of 1%.
5. Similarly, 2 %, 3%, 4%, 6% etc. are evaluated in terms of 1%.

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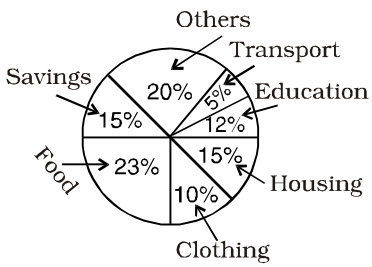
QUESTIONS ASKED IN PREVIOUS SSC EXAMS

TYPE–I

Directions (1-5) : Read the following pie-chart to answer the questions given below it.

(SSC CGL Prelim Exam. 27.02.2000 (First Sitting)



Per cent of money spent by a family on various items during 1998

1. If the total amount spent during the year 1998 was ₹ 46000/-, the amount spent on food, was :

(1) ₹ 2000/-

(2) ₹ 10580/-

(3) ₹ 23000/-

(4) ₹ 2300/-

2. If the total amount spent was ₹ 46000/-, how much was spent on clothing and housing together?

(1) ₹ 11500/- (2) ₹1150/-

(3) ₹ 10000/- (4) ₹15000/-

3. The ratio of the total amount of money spent on housing to that spent on education was :

(1) 5 : 2 (2) 2 : 5

(3) 4 : 5 (4) 5 : 4

4. Graph shows that the maximum amount was spent on:

(1) Food (2) Housing

(3) Clothing (4) Others

5. If the total expenditure of the family for the year 1998 was ₹ 46000/-, the family saved during the year.

(1) ₹ 1500/-

(2) ₹ 15000/-

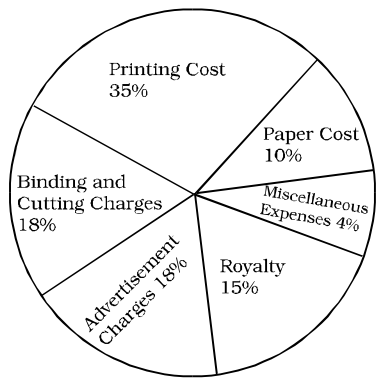
(3) ₹ 6900/-

(4) ₹ 3067/- approx.

Directions (6-10) : The following questions are based on the pie-chart given below. Study the pie-chart and answer the questions.

(SSC CGL Prelim Exam. 11.05.2003 (First Sitting)

The percentage expenses on various items during book production and sale.



6. The central angle for the sector on "Paper-Cost" is

(1) $22\frac{1}{2}^{\circ}$ (2) 16°

(3) 54.8° (4) 36°

7. If the 'Printing-Cost' is ₹ 17500, the royalty paid is

(1) ₹ 8750 (2) ₹ 7500

(3) ₹ 3150 (4) ₹ 6300

8. If the "miscellaneous expenses" are ₹ 6000. How much more are "binding and cutting charges" than "Royalty" ?

(1) ₹ 6000

(2) ₹ 5500

(3) ₹ 4500

(4) ₹10500

9. The central angle corresponding to the sector on "Printing Cost" is more than that of "Advertisement Charges " by :

(1) 72° (2) 61.2°

(3) 60° (4) 54.8°

10. The "Paper Cost" is approximately what per cent of "Printing Cost" ?

(1) 20.3% (2) 28.6%

(3) 30% (4) 32.5%

Directions (11-15) : The pie chart drawn below shows the expenses of a family on various items and its savings during the year 2001. Study the graph and answer the questions.

(SSC CGL Prelim Exam. 11.05.2003 (Second Sitting)

Percent of money spent on various items and savings by a family during 2001

11. Maximum expenditure of the family was on

(1) Food

(2) Housing

(3) Education of children

(4) Other items

12. The total savings of the family for the year were equal to the expenditure on

(1) Food

(2) Clothing

(3) Housing

(4) Other items including transport

13. What per cent of the income was spent on transport and other items together ?

(1) 25% (2) 20%

(3) 30% (4) 32%

14. If the total income of the family was ₹ 1,00,000, how much money was spent on the education of the children?

(1) ₹10000 (2) ₹12000

(3) ₹ 15000 (4) ₹ 23000

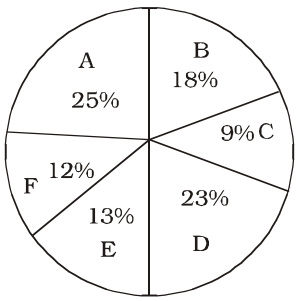
15. If the total income for the year was ₹ 1,00,000, the difference of the expenses (in rupees) between housing and transport was

(1) ₹ 15000 (2) ₹ 12000

(3) ₹ 7000 (4) ₹ 10000

Directions (16-20) : The Pie chart given here represents the domestic expenditure of a family in per cent. Study the chart and answer the following questions if the total monthly income of the family is ₹ 33,650.

(SSC CGL Prelim Exam. 08.02.2004 (Second Sitting)



A : Expenditure on food

B : Expenditure on house-rent

C: Expenditure on entertainment

D : Expenditure on education and maintenance of children

E: Medical and miscellaneous expenditure

F : Deductions towards provident fund

16. The house rent per month is :

(1) ₹ 6000 (2) ₹ 6152

(3) ₹ 6057 (4) ₹ 6048

17. The annual savings in the form of provident fund would be

(1) ₹ 48,456 (2) ₹ 48,540

(3) ₹ 44,856 (4) ₹ 45,480

18. After provident fund deductions and payment of house rent, the total monthly income of the family remains

(1) ₹ 23,545 (2) ₹ 24,435

(3) ₹ 23,555 (4) ₹25, 355

19. The total amount per month, the family spends on food and entertainment combined together, is :

(1) ₹ 11,432 (2) ₹ 11,441

(3) ₹ 12,315 (4) ₹ 12,443

20. Had there been no children in the family what would have been the total savings of the family including that provident fund ?

(1) ₹ 12,667.50

(2) ₹ 12,625.50

(3) ₹ 11,727.50

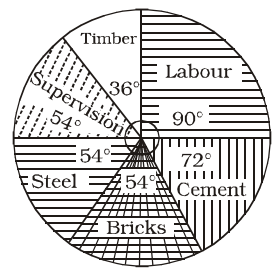
(4) ₹ 11,777.50

Directions (21-24) : The pie graph given here shows the break-up of the cost of construction of a house.

Assuming that the total cost of construction is ₹ 6,00,000, answer the questions.

(SSC Section Officer (Commercial Audit) Exam. 26.11.2006 (Second Sitting)

Break-up of the cost of construction of a house



21. The amount spent on cement is

(1) ₹ 2,00,000 (2) ₹ 1,60,000

(3) ₹ 1,20,000 (4) ₹ 1,00,000

22. The amount spent on labour exceeds the amount spent on steel by

(1) 5 per cent of the total cost.

(2) 10 per cent of the total cost.

(3) 12 per cent of the total cost.

(4) 15 per cent of the total cost.

23. The amount spent on cement, steel and supervision is what percent of the total cost of construction?

(1) 40% (2) 45%

(3) 50% (4) 55%

24. The amount spent on labour exceeds the amount spent on supervision by

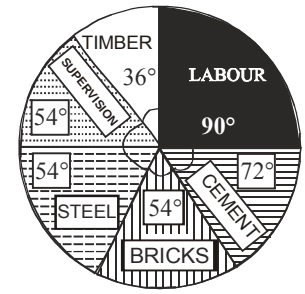
(1) ₹ 2,00,000 (2) ₹ 1,60,000

(3) ₹ 1,20,000 (4) ₹ 60,000

Directions (25–28) : The pie chart given here shows the breakup of the cost of construction of a house on various heads. Study the chart and answer the questions.

(SSC CPO S.I. Exam. 09.11.2008)

BREAK-UP OF THE COST OF CONSTRUCTION OF A HOUSE



25. If the total cost of construction of the house is ₹ 15,00,000, how much amount of money was spent on labour ?

(1) ₹ 90,000 (2) ₹ 2,50,000

(3) ₹ 3,60,000 (4) ₹ 3,75,000

26. The total expenditure incurred on bricks, steel and cement is what per cent of the total cost of construction ?

(1) 50% (2) 54%

(3) 72% (4) 75%

27. Expenditure incurred on timber is what per cent of the expenditure on cement ?

(1) 36% (2) 50%

(3) 72% (4) 18%

28. Out of the total cost (₹ 15,00,000) of construction how much amount of money was spent on labour and supervision combined together ?

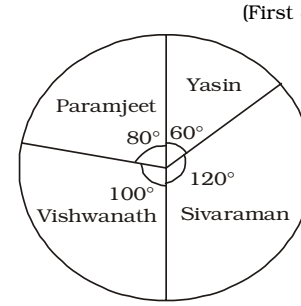
(1) ₹ 1,44,000 (2) ₹ 3,00,000

(3) ₹ 6,00,000 (4) ₹ 7,50,000

Directions (29–31) : The pie chart, given here, represents the number of valid votes obtained by four students who contested election for school leadership. The total number of valid votes polled was 720.

Observe the chart and answer the questions based on it.

(SSC CGL Tier-I Exam. 16.05.2010 (First Sitting)



29. What was the minimum number of votes obtained by any candidate ?
(1) 100 (2) 110
(3) 120 (4) 130

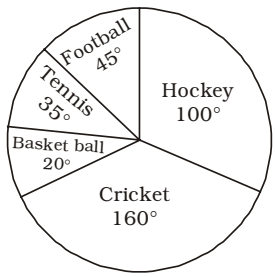
30. Who was the winner ?
(1) Sivaraman (2) Paramjeet
(3) Yasin (4) Vishwanath

31. By how many votes did the winner defeat his nearest rival ?
(1) 40 (2) 45
(3) 48 (4) 50

Directions (32–34) : The pie chart, given here, shows the amount of money spent on various sports by a school administration in a particular year.

(SSC CGL Tier-I Exam. 16.05.2010 (Second Sitting)

Observe the pie chart and answer the questions based on this graph.



32. If the money spent on football was ₹ 9,000 how much more money was spent on hockey than on football ?
(1) ₹ 11,000 (2) ₹ 11,500
(3) ₹ 12,000 (4) ₹ 12,500

33. If the money spent on football was ₹ 9,000, what amount was spent on Cricket ?
(1) ₹ 31,000 (2) ₹ 31,500
(3) ₹ 32,000 (4) ₹ 32,500

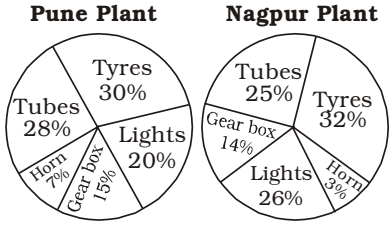
34. If the money spent on football is ₹ 9,000, then what was the total amount spent on all sports ?
(1) ₹ 73,000 (2) ₹ 72,800
(3) ₹ 72,500 (4) ₹ 72,000

Directions (35-37) : The pie charts, given here show some automobile parts manufactured by an automobile company at its Pune and Nagpur plants in the year 2009.

Study the pie charts and answer the questions

(SSC CISF ASI Exam. 29.08.2010 (Paper-1)

Pune Plant **Nagpur Plant**



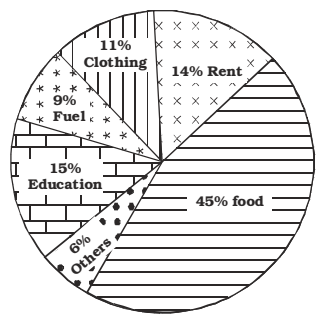
35. If the Nagpur plant produced 8,00,000 tyres, then the number of horns produced by it was
(1) 12,000 (2) 18,500
(3) 75,000 (4) 60,000

36. How many percent more tubes were produced at the Pune plant than those produced at the Nagpur plant ?
(1) 14% (2) 12%
(3) 8% (4) 3%

37. The ratio of number of horns produced at Nagpur plant to that produced at Pune plant is
(1) 3 : 7 (2) 10 : 3
(3) 7 : 3 (4) 7 : 10

Directions (38–41) : The pie chart given below shows the spendings of a family on various heads during a month. Study the graph and answer the following questions.

(SSC CGL Tier-1 Exam. 19.06.2011 (First Sitting)



38. If the total income of the family is ₹25,000, then the amount spent on Rent and Food together is
(1) ₹ 17,250 (2) ₹ 14, 750
(3) ₹ 11, 250 (4) ₹ 8, 500

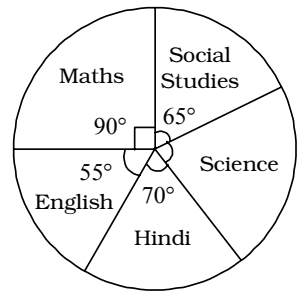
39. What is the ratio of the expenses on Education to the expenses on Food?
(1) 1 : 3 (2) 3 : 1
(3) 3 : 5 (4) 5 : 3

40. Expenditure on Rent is what percent of expenditure on Fuel?
(1) 135% (2) 156%
(3) 167% (4) 172%

41. Which three expenditures together have a central angle of 108°?
(1) Fuel, Clothing and Others
(2) Fuel, Education and Others
(3) Clothing , Rent and Others
(4) Education, Rent and Others

Directions (42-45) : The pie-chart given below shows the marks obtained by a student in an examination. If the total marks obtained by him in the examination were 540, answer the questions given below based on this pie chart.

(SSC Data Entry Operator Exam. 31.08.2008)



42. In which subject, did the student obtain 105 marks?
(1) Maths (2) Social studies
(3) Science (4) Hindi

43. What is the central angle corresponding of Science?
(1) 40° (2) 80°
(3) 75° (4) 60°

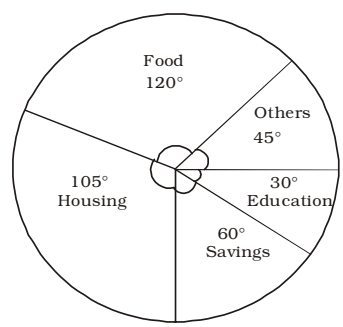
44. How many more marks were obtained by the student in Maths than those in Hindi?
(1) 30 (2) 20
(3) 10 (4) 40

45. How many marks were obtained by the student in Science?
(1) 130 (2) 120
(3) 125 (4) 140

Directions (46–49) : The pie-chart given here shows expenditures incurred by a family on various items and their savings, which amounts to ₹ 8,000 in a month.

Study the chart and answer the questions based on the pie-chart

(SSC Data Entry Operator Exam. 02.08.2009)



46. How much expenditure is incurred on education ?
(1) ₹ 3,000 (2) ₹ 5,000
(3) ₹ 4,000 (4) ₹ 7,000

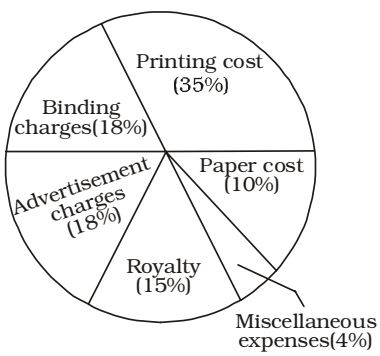
47. The ratio of the expenditure on food to the savings is
(1) 3 : 2 (2) 2 : 1
(3) 4 : 3 (4) 3 : 4

48. What is the total expenditure of the family for the month ?
(1) ₹ 40,000 (2) ₹ 48,000
(3) ₹ 45,000 (4) ₹ 50,000

49. How much more amount is spent on food than on housing ?
(1) ₹ 1,000 (2) ₹ 3,000
(3) ₹ 2,000 (4) ₹ 2,500

Directions (50–53) : The pie-chart, given here, shows various expenses of a publisher in the production and sale of a book. Study the chart and answer questions based on it.

(SSC CHSL DEO & LDC Exam. 27.11.2010)



50. If the printing cost is ₹ 17,500, the 'Royalty' paid is :
(1) ₹8,750 (2) ₹7,500
(3) ₹6,300 (4) ₹3,130

51. The measure of central angle for the section 'printing cost' is :
(1) 126° (2) 70°
(3) 63° (4) 35°

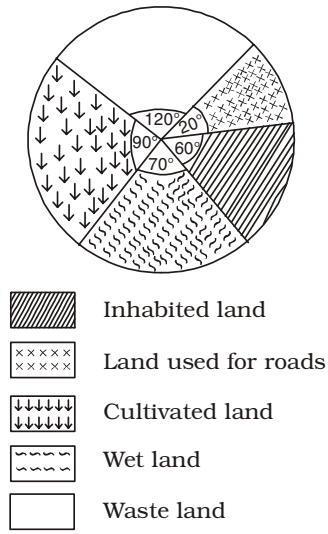
52. Miscellaneous expenses are what percent of paper cost ?
(1) 4% (2) 10%
(3) 40% (4) 44%

53. The difference between the measure of central angles of sector for binding charges and advertisement charges is :
(1) 180° (2) 90°
(3) 18° (4) 0°

Directions (54–57) : The pie-chart, given here, shows the land distribution of a village.

Study the pie-chart and answer the questions based on it.

(SSC CHSL DEO & LDC Exam. 28.11.2010 (IInd Sitting)



54. The ratio of the waste land to the cultivated land is
(1) 4 : 3 (2) 3 : 2
(3) 2 : 1 (4) 3 : 1

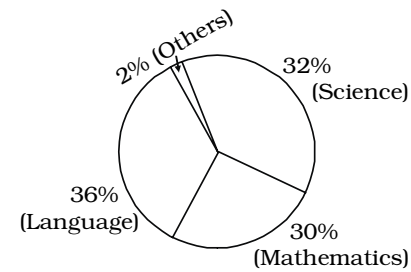
55. What percent of total land is used for cultivation ?
(1) 24% (2) 25%
(3) 50% (4) 90%

56. If the total area of the village is 7200 acres, the total area of the wet land is
(1) 1028 acres (2) 5040 acres
(3) 3600 acres (4) 1400 acres

57. The land used for roads is what percent of the inhabited land ?
(1) $66\frac{2}{3}\%$ (2) 48%
(3) $33\frac{1}{3}\%$ (4) 30%

Directions (58–62) : The following pie-chart shows the number of students who failed in different subjects in an examination. Examine the chart and answer the following questions. The total number of students who have failed is 500.

(SSC CHSL DEO & LDC Exam. 21.10.2012 (IInd Sitting)



58. The number of students failed in science is less than the number of students failed in all other subjects by :
(1) 170 (2) 140
(3) 180 (4) 160

59. The central angle of the sector for the students who have failed in mathematics is :
(1) 30° (2) 100°
(3) 105.2° (4) 108°

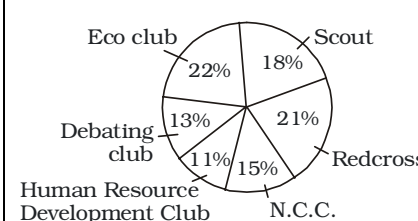
60. Total number of students who did not qualify in Mathematics and Language and Science, is :
(1) 460 (2) 490
(3) 480 (4) 470

61. Number of students who failed in mathematics is less than the students who did not qualify in languages by :
(1) 20 (2) 40
(3) 30 (4) 50

62. The percentage of students who have failed in mathematics and language is :
(1) 65.5% (2) 60%
(3) 66% (4) 62%

Directions (63–67) : The pie-chart given below shows the number of students enrolled in a school in different activities. Total number of students in the school is 1200. Study the chart and answer the questions.

(SSC CHSL DEO & LDC Exam. 21.10.2012 (IInd Sitting)



63. How many students are enrolled in N.C.C. activities ?
(1) 180 (2) 120
(3) 72 (4) 240

64. What is the total number of students enrolled in Debating Club and HRD Club ?
(1) 144 (2) 216
(3) 288 (4) 72

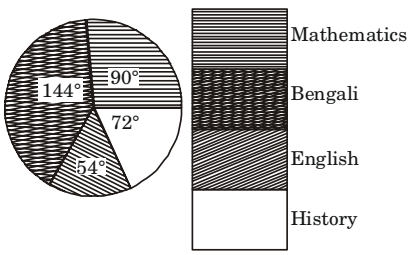
65. The number of students enrolled in Eco-club is what per cent of those enrolled in Redcross activities ?
(1) 94.24% (2) 95.45%
(3) 82.45% (4) 104.76%

66. What is the ratio of number of students enrolled in Scout and Redcross activities together to those enrolled in Debating Club activities ?
(1) 3 : 1 (2) 4 : 1
(3) 1 : 4 (4) 1 : 3

67. Which two clubs have the enrolment in the ratio of 2 : 1 ?
(1) Eco club, HRD club
(2) Eco club, N.C.C.
(3) HRD club, Eco club
(4) Debating club, Eco club

Directions (68-72) : The following pie-chart represents the result of 600 successful students in various subjects at an examination. Study the chart and answer question

(SSC CHSL DEO & LDC Exam. 28.10.2012 (Ist Sitting)



68. The ratio of students who passed in Bengali, to the students who passed in History is
(1) 1 : 2 (2) 2 : 1
(3) 3 : 4 (4) 3 : 5

69. The number of students passed in Bengali is greater than the number of students passed in History by
(1) 150 (2) 60
(3) 120 (4) 100

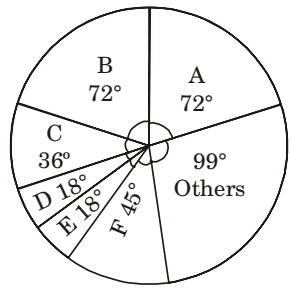
70. The percentage of students who passed in English is
(1) 15% (2) 20%
(3) 5% (4) 12%

71. The number of students passed in English is less than the number of students passed in Mathematics by
(1) 50 (2) 60
(3) 90 (4) 75

72. The highest number of students passed in a subject in percentage
(1) 20% (2) 25%
(3) 40% (4) 35%

Directions (73–77) : The following Pie Chart shows the export of different foodgrains from India in 2010. Study the chart and answer the questions :

(SSC CHSL DEO & LDC Exam. 04.11.2012 (IInd Sitting)



73. Of the total export of foodgrains, the percentage of crop B exported is
(1) 15% (2) 20%
(3) 18% (4) 10%

74. If a total of 1.5 million quintals of crop F was exported, the amount of total foodgrains exported (in million) quintals was
(1) 8.7 (2) 12
(3) 10.8 (4) 9.6

75. The three crops which combine to contribute to exactly 50% of the total export of foodgrains are
(1) A, F and others
(2) B, C and F
(3) A, B and C
(4) C, F and others

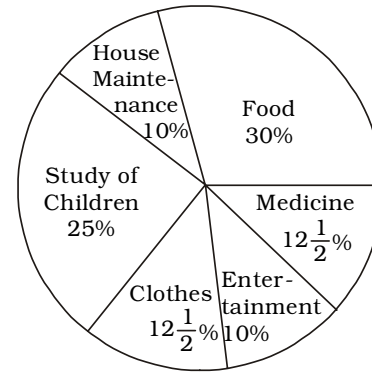
76. If a total of 1.5 million quintals of crop F was exported, then the total quantity of D and E that was exported (in million quintals) was
(1) 1.2 (2) 1.5
(3) 4.5 (4) 6.5

77. If the revenue from 1 quintal of crop A is thrice that from 1 quintal of crop C, then the ratio of the total revenues of A and C is
(1) 1 : 6 (2) 2 : 3
(3) 3 : 2 (4) 6 : 1

Directions (78–82) : Following is the pie-chart showing the spendings of a family on various items in a particular year

Study the pie chart and answer questions.

(SSC Graduate Level Tier-I Exam. 11.11.2012 (Ist Sitting)



78. The ratio of the total amount spent for food and medicine is
(1) 1 : 2 (2) 3 : 1
(3) 12 : 5 (4) 11 : 5

79. If the total amount spent on the family during the year was ₹50,000, how much they spent for buying clothes ?
(1) ₹6,250 (2) ₹6,500
(3) ₹7,250 (4) ₹7,500

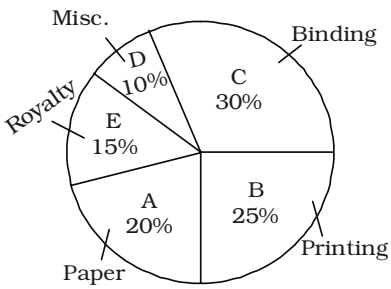
80. If the total amount spent on the family during the year was ₹35,000, the amount spent for study of children and food together was
(1) ₹19,250 (2) ₹19,500
(3) ₹19,750 (4) ₹19,850

81. Angle of the pie chart representing the expenditure on entertainment is
(1) 15° (2) 10°
(3) 36° (4) $12\frac{1}{2}°$

82. If the difference in the amount spent for buying clothes and house maintenance was ₹1,500, how much they spent for house maintenance ?
(1) ₹ 5,000 (2) ₹ 6,000
(3) ₹ 7,000 (4) ₹ 8,000

Directions (83–87) : The following pie-diagram shows the expenditure incurred on the preparation of a book by a publisher, under different heads. Study the pie-diagram and answer the following questions.

(SSC Assistant Grade-III Exam. 11.11.2012 (IInd Sitting)



83. Angle of the pie-chart representing expenditure incurred on paying royalty is
(1) 27° (2) 36°
(3) 15° (4) 54°

84. If the expenditure on printing and binding of one book is ₹110, then the cost of production of the book is (in ₹)
(1) 250 (2) 200
(3) 110 (4) 550

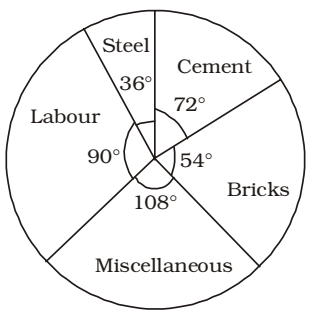
85. If cost of publishing a book is ₹ 200, then printing cost is (in ₹)
(1) 40 (2) 60
(3) 20 (4) 50

86. Which two expenditures together will form an angle of 108° at the centre of the pie-diagram ?
(1) A and D (2) A and C
(3) A and B (4) A and E

87. The number of heads on which the expenditure on a book is more than the average is
(1) 3 (2) 2
(3) 4 (4) None of these

Directions (88-92) : The following pie-chart shows the expenditure incurred on the construction of a house in a city. Study the chart and answer the following questions.

(SSC CHSL DEO & LDC Exam. 28.10.2012, Ist Sitting)



88. The mean of the expenditure is on
(1) Brick (2) Cement
(3) Steel (4) Labour

89. The ratio of expenditure on Steel, Cement and Bricks is
(1) 2 : 4 : 3 (2) 4 : 2 : 3
(3) 3 : 2 : 4 (4) 4 : 3 : 2

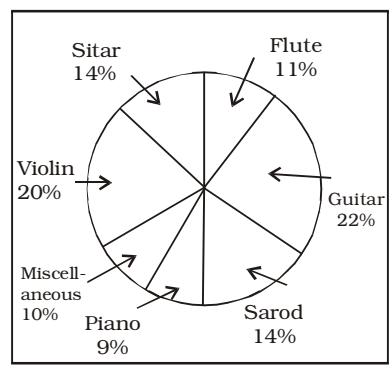
90. The highest expenditure in percentage is
(1) 40% (2) 30%
(3) 45% (4) 60%

91. What part of expenditure on labour is in respect of total expenditure ?
(1) $\frac{3}{10}$ part (2) $\frac{5}{8}$ part
(3) $\frac{1}{4}$ part (4) $\frac{7}{18}$ part

92. Of the total expenditure the percentage of expenditure on steel and bricks together is
(1) 90% (2) 20%
(3) 25% (4) 30%

Directions (93-97) : The following pie-chart shows the preference of musical instruments of 60,000 people surveyed over whole India. Examine the chart and answer the questions.

(SSC CHSL DEO & LDC Exam. 04.11.2012, Ist Sitting)



93. If 2100 people be less from the number of people who prefer Flute, the percentage of people who prefer Flute would have been :
(1) 9.5% (2) 6.5%
(3) 7.5% (4) 8.5%

94. The total number of people who prefer either Sarod or Guitar, is greater than the total number of people who prefer either Violin or Sitar by :
(1) 1200 (2) 1600
(3) 1100 (4) 1400

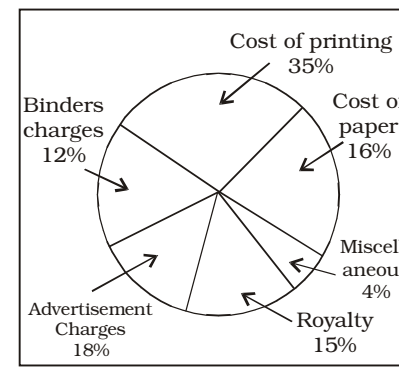
95. The number of people who prefer the musical instrument Sarod is :
(1) 7400 (2) 8400
(3) 6400 (4) 8600

96. If $16\frac{2}{3}\%$ of the people who prefer Piano, would go with the people who prefer Flute, the percentage of people who prefer Flute would have been
(1) 13.5% (2) 14.5%
(3) 15.5% (4) 12.5%

97. The number of people who prefer Guitar is greater than the total number of people who prefer either Flute or Piano by :
(1) 1200 (2) 1100
(3) 1300 (4) 1400

Directions (98-102) : Circle graph given below shows the expenditure incurred in bringing out a book by a publisher. Study the graph and answer the question.

(SSC CHSL DEO & LDC Exam. 04.11.2012, Ist Sitting)



98. The central angle of the sector for the cost of the paper is :
(1) 22.5° (2) 16°
(3) 54.8° (4) 57.6°

99. Royalty on the book is less than the Advertisement charges by :
(1) 3% (2) 25%
(3) 20% (4) $16\frac{2}{3}\%$

100. If 5500 copies are published, Miscellaneous expenditures amounts to ₹1848 and publisher's profit is 25%, then marked price of each copy is
(1) ₹ 12.50 (2) ₹ 10.50
(3) ₹ 10 (4) ₹ 8.40

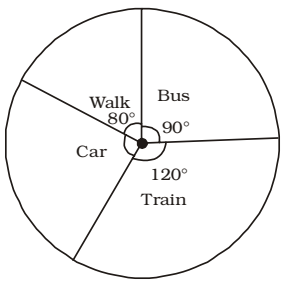
101. If the cost of printing is ₹ 17,500, the Royalty is :
(1) ₹ 8750 (2) ₹ 6300
(3) ₹ 7500 (4) ₹ 3150

102. It the Miscellaneous charges is ₹ 6,000, the Advertisement charges are :
(1) ₹ 27,000 (2) ₹ 90,000
(3) ₹ 12,000 (4) ₹ 1,333.33

Directions (103–107) : The pie-chart given below represents the number of students using different transport to a school in which total number of students is 2160.

Answer the questions based on the following diagram.

(SSC FCI Assistant Grade-III Main Exam. 07.04.2013)



103. The number of students who come to school by car is
(1) 70 (2) 290
(3) 420 (4) 480

104. The ratio of the number of students who come to school by car to the number of students who come to school by bus is
(1) 21 : 24 (2) 21 : 27
(3) 36 : 27 (4) 36 : 21

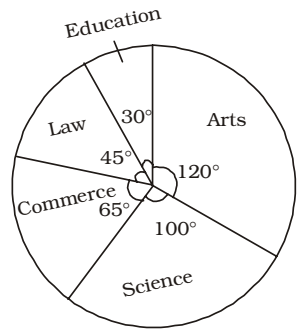
105. The total number of students coming to school either by walking or by bus is
(1) 480 (2) 540
(3) 1020 (4) 170

106. The number of students who don't come to school by train is
(1) 720 (2) 1020
(3) 2040 (4) 1440

107. The number of students coming to school by bus exceeds the number of students coming to school walking, by
(1) 10% (2) 12.5%
(3) 11% (4) 11.5%

Directions (108-110) : In the following questions, the pie-chart shows the number of students admitted in different faculties of a college. Study the chart and answer the questions.

(SSC Graduate Level Tier-I Exam. 21.04.2013, Ist Sitting)



108. How many students are more in commerce than in law if 1000 students are in science?
(1) 200 (2) 2000
(3) 500 (4) 20

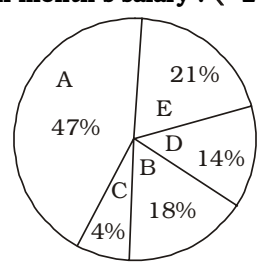
109. If 1000 students are admitted in science, what is the ratio of students in science and arts?
(1) 6 : 5 (2) 7 : 5
(3) 7 : 6 (4) 5 : 6

110. If 1000 students are admitted in science, what is the total number of students?
(1) 180 (2) 1800
(3) 3600 (4) 360

Directions (111-114) : In the following questions, study the two pie-charts and answer the questions.

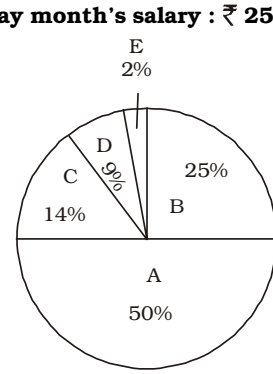
(SSC Graduate Level Tier-I Exam. 21.04.2013, Ist Sitting)

April month's salary : ₹ 24000



A – Education
B – Savings
C – Grocery
D – Electricity and Phone Bills
E – Miscellaneous

May month's salary : ₹ 25000



111. What is the percent increase in Education in May month than April month ?
(1) 9.56% (2) 12.35%
(3) 20% (4) 10.82%

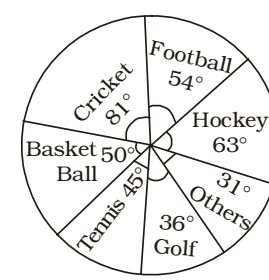
112. The ratio of amount spent for savings in April month's salary and miscellaneous in May month's salary is :
(1) 216 : 25 (2) 217 : 26
(3) 205 : 13 (4) 235 : 50

113. From the salary of May, the amount spent on Grocery and Electricity are:
(1) ₹ 6250, ₹ 3360
(2) ₹ 960, ₹ 5040
(3) ₹ 3500, ₹ 2250
(4) ₹ 2160, ₹ 480

114. The average amount spent on Education, Grocery and Savings from April month's salary is:
(1) ₹ 5800 (2) ₹ 6000
(3) ₹ 6325 (4) ₹ 5520

Directions (115–118) : The Pie Chart shows the expenditure of a country on various sports during a particular year. Study the graph and answer the questions.

(SSC Graduate Level Tier-I Exam. 21.04.2013 IInd Sitting)

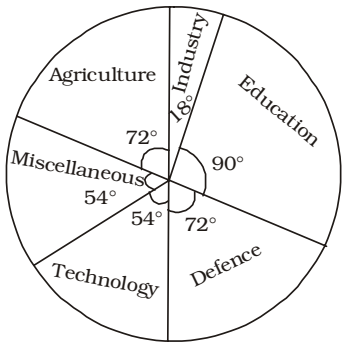


115. If the total amount spent on cricket and hockey together is ₹ 80,000, the total amount spent on sports is
(1) ₹ 1,00,000
(2) ₹ 2,00,000
(3) ₹ 2,50,000
(4) ₹ 3,00,000

116. How much per cent more is spent on Hockey than that on Golf ?
(1) 27% (2) 35%
(3) 37.5% (4) 75%

117. How much per cent less is spent on football than that on cricket ?
(1) $22\frac{2}{9}\%$ (2) 27%
(3) $33\frac{1}{3}\%$ (4) $37\frac{1}{2}\%$

118. Study the graph & answer the question



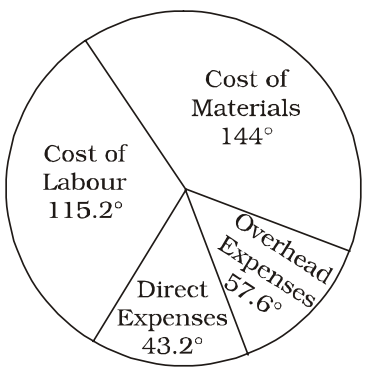
In a certain country, allocations to various sectors of the yearly budget per ₹ 1000 crores are represented by this pie-diagram. The expenditure (in ₹) on Agriculture is

(1) 250 crores (2) 150 crores
(3) 300 crores (4) 200 crores

(SSC Graduate Level Tier-I Exam. 21.04.2013)

Directions (119–120) : Following figure is Pie-chart representing itemwise cost of manufacturing certain product. Study the chart and answer the questions.

(SSC Graduate Level Tier-I Exam. 19.05.2013)



119. Total manufacturing cost is ₹ 96,000. Then, cost of labour is

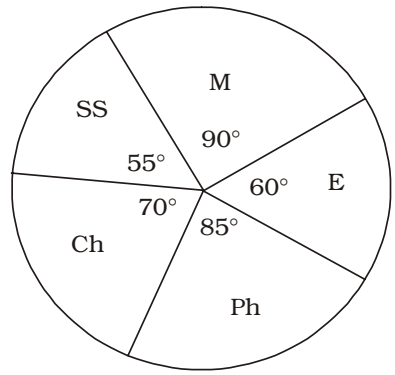
(1) ₹ 30,720 (2) ₹ 38,400
(3) ₹ 11,520 (4) ₹ 15,000

120. The difference of cost of material and direct expenses is

(1) ₹ 26,000 (2) ₹ 10,000
(3) ₹ 26,500 (4) ₹ 26,880

Directions (121–124) : The following pie-chart shows the marks scored by a student in different subjects - viz. Physics (Ph), Chemistry (Ch), Mathematics (M), Social Science (SS) and English (E) in an examination. Assuming that total marks obtained for the examination is 810. Answer the questions given below.

(SSC Graduate Level Tier-I Exam. 19.05.2013 Ist Sitting)



121. The difference of marks between Physics and Chemistry is same as that between

(1) Chemistry and Social Science
(2) Physics and English
(3) Mathematics and English
(4) English and Social Science

122. The marks obtained in Mathematics and Chemistry exceed the marks obtained in Physics and Social Science by

(1) 50 (2) 30
(3) 40 (4) 45

123. The subject in which the student obtained 135 marks is

(1) English
(2) Physics
(3) Chemistry
(4) Mathematics

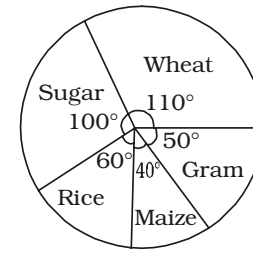
124. The marks obtained in English, Physics and Social Science exceed the marks obtained in Mathematics and Chemistry by

(1) $11\frac{1}{9}\%$ (2) 10%

(3) $10\frac{1}{9}\%$ (4) 11%

Direction (125) : The annual agricultural production (in tonnes) of an Indian State is given in the pie chart. The total production is 9000 tonnes. Read the pie chart and answer the question.

(SSC Graduate Level Tier-II Exam. 29.09.2013)



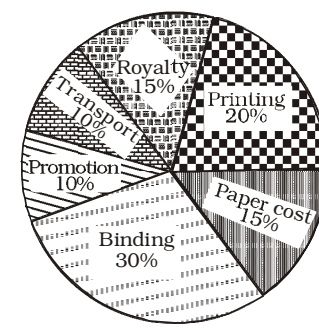
(in tonnes)

125. What is the annual production of wheat?

(1) 2750 tonnes
(2) 3000 tonnes
(3) 3540 tonnes
(4) 3500 tonnes

Directions (126-127) : Various expenditures incurred by a publishing company for publishing a book in 2011 are given below. Study the chart and answer the questions.

(SSC CHSL DEO& LDC Exam. 20.10.2013)



126. Price of a book is 20% above cost price. If the marked price is ₹ 180, then the cost of paper for a single copy (in ₹) is

(1) 44.25 (2) 36
(3) 22.50 (4) 42

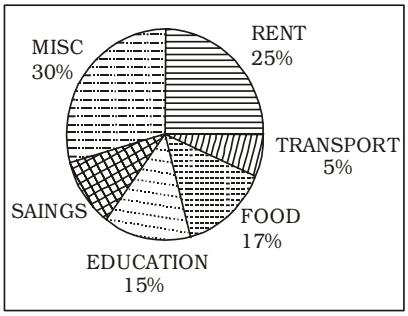
127. Royalty of a book is less than the printing cost by

(1) 25% (2) 5%

(3) $33\frac{1}{3}\%$ (4) 20%

Directions (128-131) : The adjoining pie-chart shows the proportional expenditure on various items of Amar's family. If monthly income of Amar is ₹ 48,000, answer the questions.

(SSC CGL Tier-I Re-Exam. (2013) 27.04.2014)



128. Had his income be ₹ 40,000 how much would be spent on food ?
(1) ₹ 14,960 (2) ₹ 1,360
(3) ₹ 8,160 (4) ₹ 6,800

129. If 10% of miscellaneous expenditure is earmarked for clothing, how much amount is spent on clothes ?
(1) ₹ 14,400 (2) ₹ 1,440
(3) ₹ 2,880 (4) ₹ 15,840

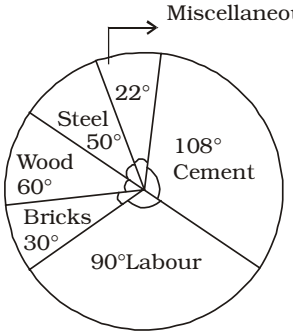
130. How much does he save per month ?
(1) ₹ 7,200 (2) ₹ 14,400
(3) ₹ 3,840 (4) ₹ 2,400

131. How much does he spend more on rent than on transport and education taken together ?
(1) ₹ 2,400 (2) ₹ 9,600
(3) ₹ 4,800 (4) ₹ 12,000

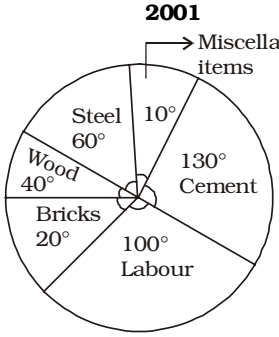
Directions (132-134) : Pie-charts show the expenses on various heads in construction of a house. Study the pie-chart.

(SSC CGL Tier-I Re-Exam. (2013) 20.07.2014) (Ist Sitting)

1991



2001



132. What percentage of the total amount is being spent on cement in 1991 ?
(1) 18% (2) 30%
(3) 48% (4) 60%

133. The percentage increase in the amount spent on labour from 1991 to 2001, given that the total amount spent on the construction of the house is ₹3,60, 000 in 1991 and ₹8,64,000, in 2001 is

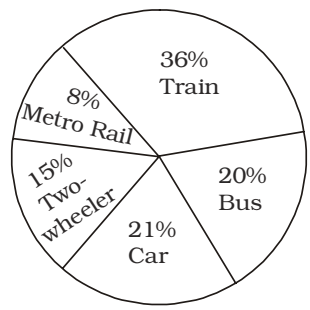
(1) $3\frac{1}{9}\%$ (2) $43\frac{1}{3}\%$

(3) $41\frac{2}{3}\%$ (4) $2\frac{2}{9}\%$

134. If the total cost of constructing the house is ₹3,60,000 in 1991 and ₹8,64,000, in 2001, what is the amount spent on Steel in 1991 and 2001 ?
(1) ₹ 2,16,000, ₹ 4,32,000
(2) ₹ 60,000, ₹ 84,000
(3) ₹ 80,000, ₹ 2,10,000
(4) ₹ 50,000, ₹ 1,44,000

Directions (135-138) : The pie chart given below represents the modes of transport for 1400 officers of the Staff Selection Commission, Kolkata. Study the chart and answer the following questions.

(SSC CGL Tier-I Re-Exam. (2013) 20.07.2014) (IInd Sitting)



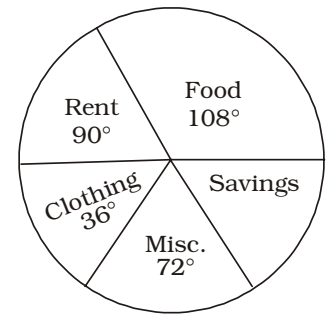
135. The ratio of two-wheelers and cars being used as modes of transport is
(1) 4 : 7 (2) 7 : 5
(3) 5 : 7 (4) 3 : 5

136. Write down the difference :
(officers availing train – officers availaing car)
(1) 210 (2) 462
(3) 562 (4) 452

137. The number of officers who go to office by Metro Rail is
(1) 142 (2) 132
(3) 112 (4) 122

138. The number of officers who go to office by car is
(1) 394 (2) 304
(3) 214 (4) 294

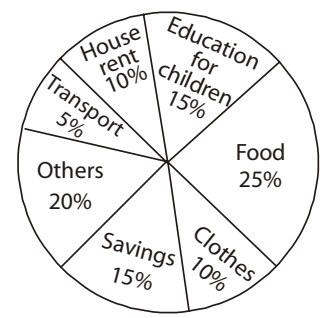
139. The following pie - chart shows the monthly expenditure of a family on food, clothing, rent, miscellaneous expenses and savings. What is the central angle for savings ?



(1) 54° (2) 56°
(3) 50° (4) 52°

(SSC CGL Tier-I Exam. 26.10.2014)

140. The pie - chart gives the expenditure (in percentage) on various items and savings of a family during a month. Monthly savings of the family is ₹ 3, 000. On which item is the expenditure maximum and how much is it ?



(1) Others, ₹ 2,000
(2) Food, ₹ 3,000
(3) Others, ₹ 5,000
(4) Food, ₹ 5,000

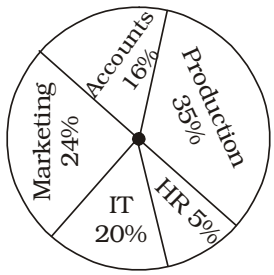
(SSC CGL Tier-I Exam. 26.10.2014)

Directions (141-144) : Study the pie-chart and table given below and answer the questions.

(SSC CAPFs SI, CISF ASI & Delhi Police SI Exam. 22.06.2014)

Details of percentage of employees working in various departments in an organization and number of males among them.

Total number of employees = 800.



Department	No. of Males
Production	245
HR	12
IT	74
Marketing	165
Accounts	93

141. The respective ratio between the number of females working in HR department to the total number of employees working in the HR department is
(1) 7 : 10 (2) 8 : 17
(3) 8 : 19 (4) 5 : 7

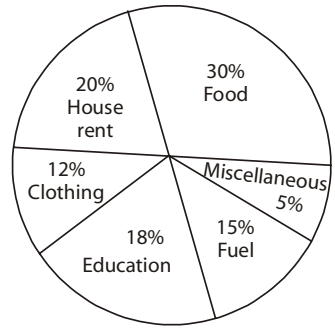
142. The percentage of the number of male employees working in Marketing department to the total number of employees in Marketing department is
(1) 84% (2) 86%
(3) 88% (4) 91%

143. The percentage of females working in IT department to the total number of employees working in the organization is
(1) 10.25% (2) 10.75%
(3) 15.25% (4) 15.75%

144. The ratio of number of males in Marketing department to the number of females working in that department is
(1) 52 : 7 (2) 52 : 9
(3) 55 : 7 (4) 55 : 9

Directions (145-149) : The following pie-chart shows the monthly expenditure of a family on food, house rent, clothing, education, fuel and miscellaneous. Study the pie-chart and answer the questions.

(SSC CAPFs SI, CISF ASI & Delhi Police SI Exam. 22.06.2014 TF No. 999 KP0)



145. If the expenditure for food is ₹ 9000, then the expenditure for education is
(1) ₹ 5000 (2) ₹ 5200
(3) ₹ 5400 (4) ₹ 6000

146. The central angle of the sector for the expenditure on fuel (in degrees) is
(1) 50.4 (2) 54
(3) 57.6 (4) 72

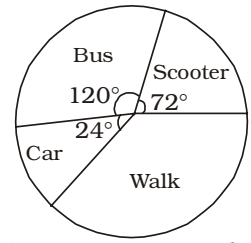
147. If the expenditure on fuel is ₹ 3000, the total expenditure excluding expenditure on house rent and education is
(1) ₹ 11600 (2) ₹ 12000
(3) ₹ 12400 (4) ₹ 12500

148. If the percentage of expenditure on food is x% of the total percentage of expenditure on clothing, education and fuel, then x equals
(1) 66 (2) $66\frac{1}{3}$
(3) $66\frac{2}{3}$ (4) 67

149. Total percentage of expenditure on house rent, clothing and fuel is greater than the percentage of expenditure on food by
(1) 16 (2) 17
(3) 18 (4) 20

Directions (150 – 153) : The following graph represents the transport used by children. Study the graph and answer the given questions.

(SSC CHSL (10+2) DEO & LDC Exam. 16.11.2014, IInd Sitting TF No. 545 QP 6)



150. What is the measure of the angle at the centre representing people walking ?
(1) 144° (2) 48°
(3) 36° (4) 72°

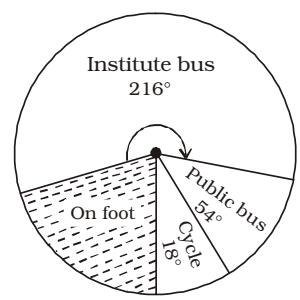
151. What is the percentage of children using scooter ?
(1) 20% (2) $33\frac{1}{3}$ %
(3) 15% (4) 40%

152. If 10 students come by car, how many come by bus ?
(1) 60 (2) 50
(3) 30 (4) 100

153. If 180 students come walking to school what is the strength of the school ?
(1) 540 (2) 450
(3) 360 (4) 600

Directions (154 – 156) : In an Institution there are 800 students. Students use different modes of transport for going to the institution and return. The given pie diagram represents the requisite data. Study the diagram carefully and answer the questions.

(SSC CGL Tier-II Exam. 12.04.2015 TF No. 567 TL 9)



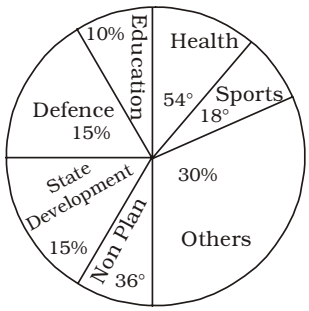
154. The number of students who travel in public bus is
(1) 150 (2) 120
(3) 130 (4) 125

155. The number of students who do not use institute bus is
(1) 330 (2) 350
(3) 480 (4) 320

156. The number of students who go to institute on foot is
(1) 160 (2) 170
(3) 120 (4) 106

Directions (157–161) : The expenses of a country for a particular year is given in Pie–Chart. Read the Pie–Chart and answer the questions.

(SSC CAPFs SI, CISF ASI & Delhi Police SI Exam, 21.06.2015 (Ist Sitting) (TF No. 8037731)



157. If the total amount spent by the Government during the year was ₹ 1,00,000 crores, then the amount spent on Health and Education together was

(1) ₹ 25,000 crore
(2) ₹ 20,000 crore
(3) ₹ 30,000 crore
(4) ₹ 15,000 crore

158. If the total amount spent by the Government during the year was ₹ 3,00,000 crores, the amount spent on state development exceeds that on sports by

(1) ₹ 30,000 crore
(2) ₹ 45,000 crore
(3) ₹ 35,000 crore
(4) ₹ 25,000 crore

159. The percent of less money spent on non plan than that on defence is

(1) 15% (2) 5%
(3) 12% (4) 10%

160. The percent of excess money spent on Others than that on Sports is

(1) 26% (2) 25%
(3) 27% (4) 28%

161. The percent of the total spending that is spent on health is

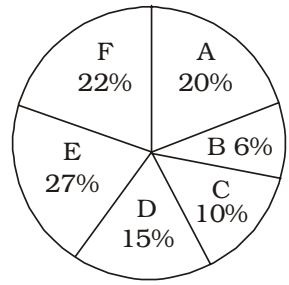
(1) 15% (2) 20%
(3) 25% (4) 30%

Directions (162 – 166) : Study the following graph carefully and answer the given questions.

(SSC CAPFs SI, CISF ASI & Delhi Police SI Exam, 21.06.2015 IInd Sitting)

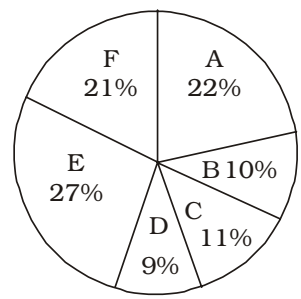
Percentage of different types of employees in a company in two consecutive years.

Total Number of employees = 42980



1997

Total Number of employees = 48640



1998

162. In 1997 the total number of which of the following types of pairs of employees was approximately equal to A type of employees in 1998 ?

(1) C and D (2) D and E
(3) B and C (4) A and C

163. From 1997 to 1998 in the case of which of the following types of employees the change was maximum ?

(1) B (2) A
(3) C (4) D

164. What was the approximate difference in the number of B type of employees during 1997 and 1998 ?

(1) 2285 (2) 2325
(3) 2620 (4) 2085

165. If the number of D type employees in 1998 was 5000, what would have been its approximate percentage in the company ?

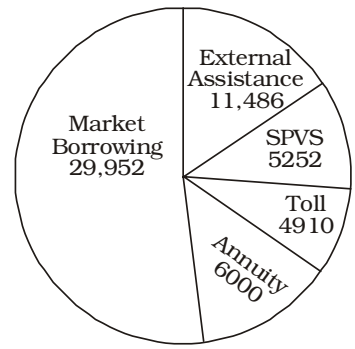
(1) 10 (2) 14
(3) 12 (4) 16

166. The number of A type employees in 1998 was approximately what percent of the number of A type employees in 1997 ?

(1) 140 (2) 115
(3) 95 (4) 125

Directions (167 – 169) : The following pie-chart shows the sources of funds (In Rs. crores) to be collected by the National Highways Authority of India (NHAI) for its Phase II projects. Study the pie-chart and answer the following **Three** questions :

(SSC CGL Tier-I Exam, 09.08.2015 (Ist Sitting) TF No. 1443088)



167. If the toll is to be collected through an outsourced agency by allowing a maximum 10% commission, how much amount should be permitted to be collected by the outsourced agency, so that the project is supported with Rs. 4,910 crores ?

(1) Rs. 6,213 crores
(2) Rs. 5,827 crores
(3) Rs. 5,401 crores
(4) Rs. 5,316 crores

168. If NHAI could receive a total of Rs. 9,695 crores as External Assistance, by what percent (approximately) should it increase the Market Borrowing to arrange for the shortage of funds ?

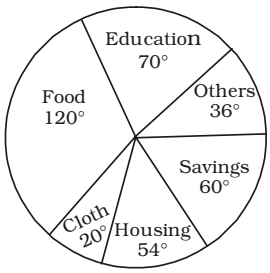
(1) 4.5% (2) 7.5%
(3) 6% (4) 8%

169. The central angle corresponding to Market Borrowing is

(1) 52° (2) 137.8°
(3) 187.2° (4) 192.4°

Directions (170 – 172) : The pie-chart given below shows expenditure incurred by a family on various items and their savings. Study the chart and answer the questions based on the pie-chart

(SSC CGL Tier-I Exam, 16.08.2015 (Ist Sitting) TF No. 3196279)



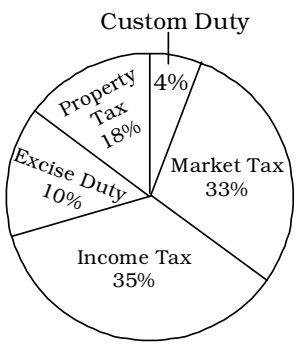
170. The ratio of expenditure on food to savings is :
(1) 3 : 2 (2) 10 : 9
(3) 3 : 1 (4) 2 : 1

171. If the expenditure on education is ₹1600 more than that on housing, then the expenditure on food is :
(1) ₹ 12000 (2) ₹ 6000
(3) ₹ 3333 (4) ₹ 7000

172. If the monthly income is ₹ 36000, then the yearly savings is :
(1) ₹ 70000 (2) ₹ 72000
(3) ₹ 60000 (4) ₹ 74000

Directions (173–175) : The income of a state under different heads is given in the following pie–chart. Study the chart and answer the questions.

(SSC CGL Tier-I Exam, 16.08.2015 (IInd Sitting) TF No. 2176783)



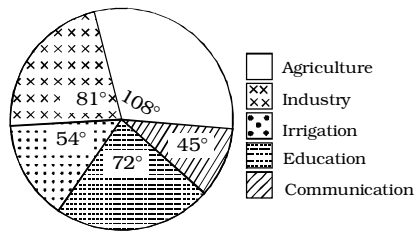
173. If the income from the market tax in a year be ₹ 165 crores then the total income from other sources is (in ₹ crore)
(1) 325 (2) 335
(3) 365 (4) 345

174. If the total income in a year be ₹ 733 crores then the income (in ₹ crores) from 'Income tax' and 'Excise duty' is :
(1) 329.85 (2) 331.50
(3) 331.45 (4) 329.80

175. The central angle of the sector representing income tax is :
(1) 126° (2) 135°
(3) 150° (4) 119°

Directions (176–178) : The pie–chart shows the proposed outlay for different sectors during a Five–Year plan of Government of India. Total outlay is Rs. 40,000 crores. By reading the pie–chart answer the following three questions.

(SSC CGL Tier-I Re-Exam, 30.08.2015)



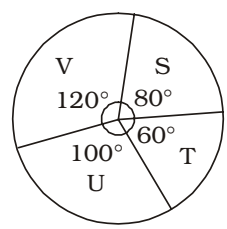
176. What is the proposed outlay for Education?
(1) Rs. 6000 crores
(2) Rs. 8000 crores
(3) Rs. 9000 crores
(4) Rs. 7000 crores

177. If the proposed outlay of Irrigation is x% of the proposed outlay of Agriculture, then x is equal to
(1) 50% (2) 15%
(3) 25% (4) 75%

178. What is the ratio between the proposed outlay of Irrigation and Communication?
(1) 9 : 8 (2) 3 : 2
(3) 9 : 5 (4) 6 : 5

Directions (179–180) : The following pie-chart shows the market share of four companies S, T, U and V. Total market is worth Rs. 72 crores. Study the pie-chart and answer the questions.

(SSC Constable (GD) Exam, 04.10.2015, IInd Sitting)

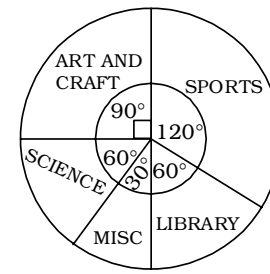


179. The company having maximum market share is
(1) T (2) U
(3) S (4) V

180. The difference of market shares of companies V and U is
(1) Rs. 8 crores (2) Rs. 9 crores
(3) Rs. 6 crores (4) Rs. 4 crores

Directions (181–185) : The pie chart shows how the school funds is spent under different heads in a certain school. Using the pie chart answer the questions.

(SSC CHSL (10+2) LDC, DEO & PA/SA Exam, 01.11.2015, IInd Sitting)



Misc. Miscellaneous

181. What percentage of the total expense is spent on library?
(1) 24.3 (2) 24
(3) 20 (4) 16.6

182. Which head uses 25% of the funds?
(1) Sports
(2) Misc
(3) Library
(3) Art and Craft

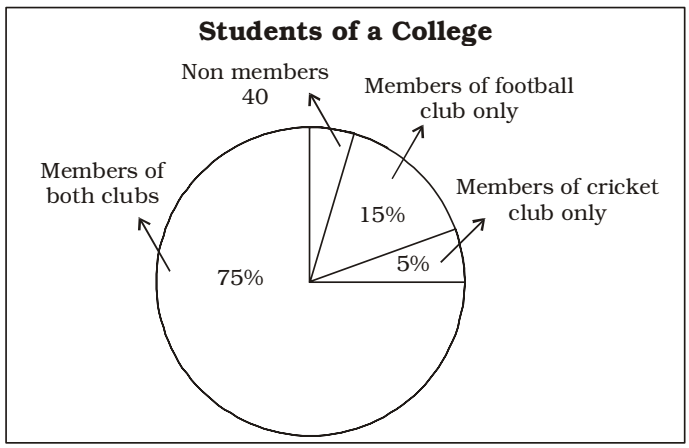
183. Which heads have the same amount of expenditure?
(1) Library and Science
(2) Sports and Science
(3) Science and Misc (4) Misc and Library

184. Which head has the maximum expenditure?
(1) Art and Craft
(2) Sports
(3) Library
(4) Science

185. What is the ratio of expenditure on sports to that on art and craft?
(1) 1 : 1 (2) 4 : 3
(3) 1 : 4 (4) 2 : 1

Directions (186 – 189) : Study the Pie chart carefully and answer the questions.

(SSC CHSL (10+2) LDC, DEO & PA/SA Exam, 15.11.2015 (Ist Sitting) TF No. 6636838)



186. Percentage of students who are not members of any club is :
(1) 5% (2) 8%
(3) 10% (4) 6%

187. Number of students who are members of cricket club only :
(1) 35 (2) 40
(3) 42 (4) 41

188. Ratio of members of cricket club only and football club only respectively is :
(1) 1 : 3 (2) 2 : 1
(3) 1 : 2 (4) 3 : 1

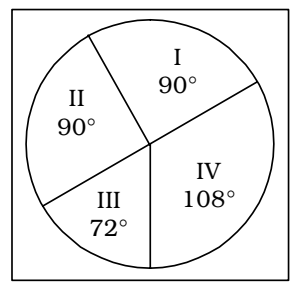
189. The number of students who are members of both the clubs is :
(1) 500 (2) 650
(3) 550 (4) 600

Directions (190–193) : Study the pie chart and answer the given questions.

The total expenditure of a company for a particular month is Rs. 60000. The various heads of expenditure I to IV are indicated in a pie chart given below. These heads are :

(SSC CHSL (10+2) LDC, DEO & PA/SA Exam, 15.11.2015 (IInd Sitting) TF No. 7203752)

I. Raw materials
II. Conveyance
III. Electricity
IV. Overhead expenses



190. Total expenditure on conveyance is :
(1) Rs. 12,000 (2) Rs. 15,000
(3) Rs. 20,000 (4) Rs. 10,000

191. What percentage of total expenditure is on electricity?
(1) 23% (2) 25%
(3) 30% (4) 20%

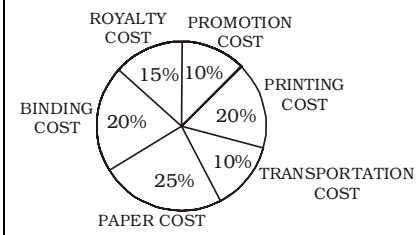
192. What is the amount spent on overhead expenses?
(1) Rs. 12,000 (2) Rs. 15,000
(3) Rs. 18,000 (4) Rs. 10,000

193. What percentage of total expenditure is on raw materials?
(1) 25% (2) 30%
(3) 60% (4) 23%

Directions (194-197) : The following pie-chart shows the percentage distribution of the expenditure incurred in publishing a book. Read the pie-chart and answer the questions.

(SSC CHSL (10+2) LDC, DEO & PA/SA Exam, 06.12.2015 (Ist Sitting) TF No. 1375232)

Various Expenditure (in percentage) incurred in publishing a book



194. Royalty on the book is less than the printing cost by :
(1) 20% (2) 5%
(3) 25% (3) $33\frac{1}{3}$

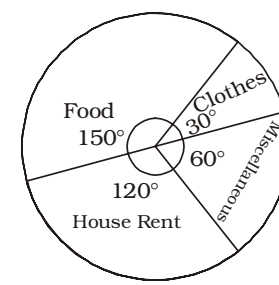
195. The central angle of the sector corresponding to the expenditure incurred on Royalty is :
(1) 15° (2) 48°
(3) 54° (4) 24°

196. If 5500 copies are published and the transportation cost on them amount to Rs. 82500 then the selling price of the book so that the publisher can earn a profit of 25% is :
(1) Rs. 191.50 (2) Rs. 187.50
(3) Rs. 180 (4) Rs. 175

197. If for a certain quantity of books, the publisher has to pay Rs. 30600 as printing cost, then the amount of royalty cost to be paid for these books is :
(1) Rs. 21200 (2) Rs. 19450
(3) Rs. 22950 (4) Rs. 26150

Directions (198–201) : The Expenditure of a family in a month is represented by a Pie-chart. Read it carefully to answer the questions.

(SSC CHSL (10+2) LDC, DEO & PA/SA Exam, 06.12.2015 (IInd Sitting) TF No. 3441135)



198. The total money spent on clothes and miscellaneous is :
(1) None of the options
(2) Rs. 900 (3) Rs. 3600
(4) Rs. 2000

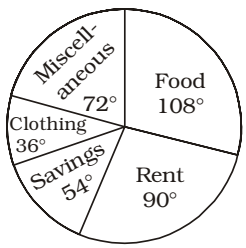
199. The percentage of money spent on food compared to house rent is
(1) 25% (2) 12.5%
(3) 50% (4) None of these

200. The ratio of the amount spent on food and clothes is
(1) 4 : 1 (2) 4 : 5
(3) 5 : 1 (4) 2 : 5

201. If the total amount spent is Rs. 7,200, find the amount spent on food :
(1) Rs. 1500 (2) Rs. 6000
(3) Rs. 4500 (4) Rs. 3000

Directions (202–206) : The following pie–chart shows the monthly expenditure of a family on various items. If the family spends Rs. 825 on clothing, answer the questions.

(SSC CGL Tier-II Online Exam.01.12.2016)



202. What is the total monthly income of the family ?
(1) Rs. 8025 (2) Rs. 8250
(3) Rs. 8520 (4) Rs. 8052

203. What per cent of the total income does the family save ?
(1) 15% (2) 50%
(3) 20% (4) 25%

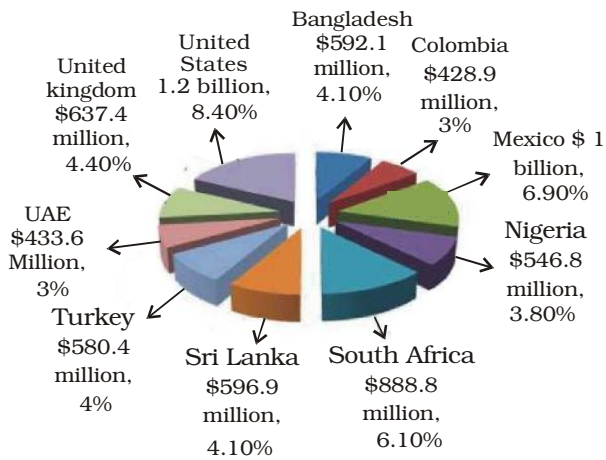
204. What is the ratio of expenses on food and miscellaneous ?
(1) 3 : 4 (2) 2 : 3
(3) 3 : 2 (4) 2 : 5

205. What is the average of expenses on clothing and rent?
(1) Rs. 1443.75
(2) Rs. 1344.57
(3) Rs. 1574.34
(4) Rs. 1734.45

206. The ratio of average of expenses on food, clothing and miscellaneous items to the average of expenses on savings and rent is
(1) 3 : 2 (2) 1 : 3
(3) 2 : 1 (4) 1 : 1

Directions (207–211) : The following pie chart shows the export of automobiles of India to the 10 countries given below in 2014. The 10 countries imported 47.8% of the total export of India. Observe the chart given below and answer the following question :

(SSC CPO SI, ASI Online Exam.05.06.2016) (IInd Sitting)



207. Which country is the fifth largest importer of Automobiles from India?
(1) United Kingdom
(2) Sri Lanka
(3) Bangladesh
(4) Turkey

208. The number of automobile exported to United States is roughly equal to the combined export to which two countries?
(1) Sri Lanka Turkey
(2) Sri Lanka Bangladesh
(3) Mexico UAE
(4) United Kingdom Turkey

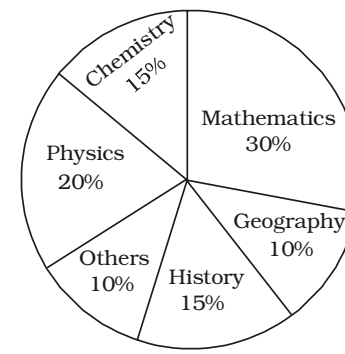
209. What is the difference in the value of exports between the 3rd and the 7th largest importer?
(1) 419.6 million
(2) 308.4 million
(3) 57 million
(4) 128.7 million

210. What is the average of imports of the countries UAE, Bangladesh, and Sri Lanka?
(1) 580.5 million
(2) 618.6 million
(3) 473.7 million
(4) 540.8 million

211. What is the corresponding angle to the exports for Turkey?
(1) 14.4° (2) 15.2°
(3) 12.5° (4) 17°7

Directions (212–215) : The following pie-chart shows the study – time of different subjects of a student in a day. Study the pie–chart and answer the following questions

(SSC CHSL (10+2) Tier-I (CBE) Exam. 08.09.2016) (Ist Sitting)



212. The time spent to study history and chemistry is 4 hours 30 minutes, Then the student studied physics for
(1) 1 hour 30 minutes
(2) 2.9 hours (approx.)
(3) 2 hours
(4) 3 hours

213. If the student studied chemistry for 3 hours, then he/she studied geography for
(1) 1 hour
(2) 2 hours
(3) 1 hour 30 minutes
(4) 2 hours 30 minutes

214. If the student studied 10 hours in a day, then he/she studied mathematics for

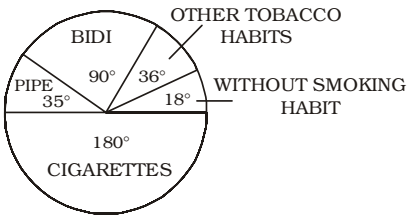
(1) 3 hours (2) $\frac{10}{3}$ hours

(3) $\frac{1}{3}$ hour (4) $\frac{3}{10}$ hour

215. Instead of 10%, if the student spends 15% to study other subjects and the time is taken from the time scheduled to study mathematics and if he/she used to study 20 hours per day, then the difference of time for studying mathematics per day is :
(1) 30 minutes
(2) 45 minutes
(3) 1 hour
(4) 1 hour 30 minutes

Directions (216–220) : The Pie-chart shows the result of a survey among 119060 people concerning the use of tobacco. Study the Pie-chart and answer the questions.

(SSC CAPFs (CPO) SI & ASI, Delhi Police Exam. 20.03.2016) (IInd Sitting)



216. Let P be the percentage of people using Cigarettes, Pipe and Bidi as their smoking means and Q be the percentage of people using other means as their smoking habits. Then P is more than Q by :
(1) 25% (2) 10%
(3) 85% (4) 75%

217. The number of people smoking Cigarettes is :
(1) 53905 (2) 59305
(3) 59530 (4) 11906

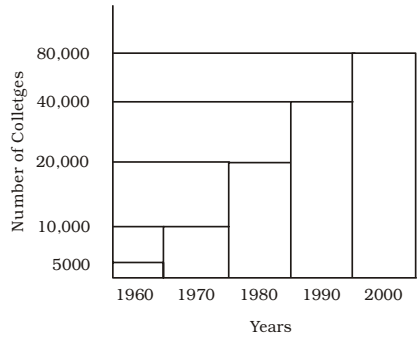
218. The number of people preferring Bidi is :
(1) 29790 (2) 29765
(3) 35718 (4) 37185

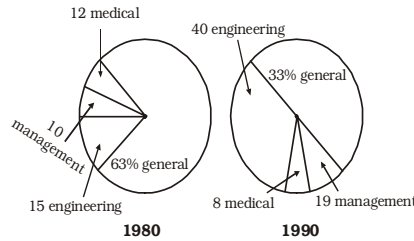
219. The number of Cigarette smoking people is greater than the number of Pipe smoking people by :
(1) 29765 (2) 47624
(3) 11906 (4) 59530

220. The percentage of people under survey, who do not have any smoking habit is :
(1) 5.2% (2) 5%
(3) 10% (4) 7.5%

Directions (221 – 225) : The numbers of different colleges in India in different years is given in the graph below. Percent distribution of different colleges in year 1980 and 1990 is shown in pie chart

(SSC CPO SI & ASI, Online Exam. 06.06.2016) (IInd Sitting)





Medical
Management
Engineering
General

221. What is the difference in number of engineering colleges in 80°s and 90's.
(1) 13000 (2) 10000
(3) 15000
(4) None of these

222. The difference in number of management colleges in 1980 to 1990 is :
(1) 3600 (2) 3000
(3) 5600 (4) 1500

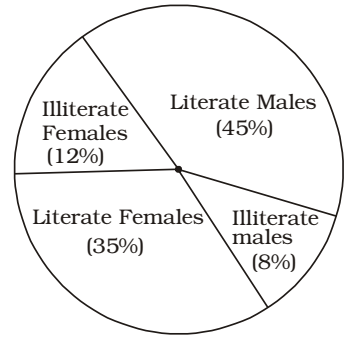
223. What is the % increment in the number of colleges from 1960 to 1980 ?
(1) 300% (2) 700%
(3) 750% (4) 800%

224. By what percent is the number of medical colleges in 1980 less than that in 1980 ?
(1) 25% (2) 30%
(3) 32% (4) 20%

225. What is the average number of colleges for the given years ?
(1) 30000 (2) 31000
(3) 29000 (4) 32000

Directions (226–229) : The pie-chart shows the percentage of literate and illiterate males and females in a state. Study the diagram and answer the following questions.

(SSC CGL Tier-I (CBE) Exam. 31.08.2016) (Ist Sitting)



226. If the total number is 35000, then the difference between the number of literate males and that of literate females is
(1) 3500 (2) 3700
(3) 400 (4) 4500

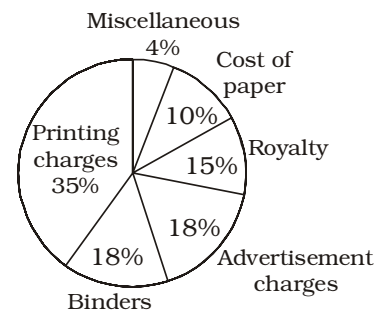
227. The difference of central angles corresponding to illiterate male and illiterate female is
(1) 12.2° (2) 13.4°
(3) 11.2° (4) 14.4°

228. If the difference between the two categories of people are represented by 36° in the diagram, then these categories are
(1) literate males and literate females
(2) literate males and illiterate males
(3) illiterate males and literate females
(4) illiterate males and illiterate females

229. If two categories together have a central angle of 169.2°, then these categories are
(1) literate females and illiterate females
(2) literate males and illiterate females
(3) illiterate males and illiterate females
(4) illiterate males and literate females

Directions (230–233) : Study the pie chart given below and answer the following questions.

(SSC CGL Tier-I (CBE) Exam. 01.09.2016) (Ist Sitting)



230. If the miscellaneous charges are Rs. 6000, then the advertisement charges are
(1) Rs. 12000
(2) Rs. 27000
(3) Rs. 90000
(4) Rs. 25000

231. The central angle of printing charge is x more than that of advertisement charges. Then the value of x is
(1) 72° (2) 61.2°
(3) 60° (4) 54.8°

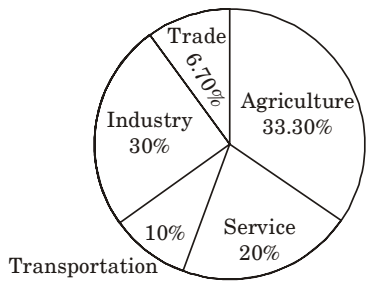
232. What should be the central angle of the sector 'cost of paper' ?
(1) 22.5° (2) 54.8°
(3) 36° (4) 16°

233. The ratio between royalty and binders' charges is
(1) 5 : 6 (2) 5 : 8
(3) 6 : 5 (4) 8 : 13

Directions (234–237) : Study the following pie chart carefully and answer the questions. The pie chart represents the percentage of people involved in various occupations.

(SSC CGL Tier-I (CBE) Exam. 03.09.2016) (IInd Sitting)

Total number of people = 20000



234. How many more people are involved in service than in trade?
(1) 3660 (2) 2660
(3) 1660 (4) 660

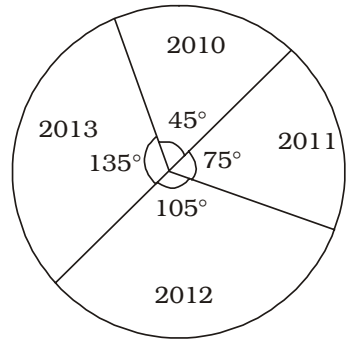
235. The ratio of the people involved in service to that in industry is
(1) 1 : 2 (2) 2 : 3
(3) 3 : 4 (4) 3 : 2

236. The sectoral angle made by the people involved in service in the given pie-chart is
(1) 36° (2) 90°
(3) 72° (4) 108°

237. The difference between the maximum number of people involved and minimum number of people involved in various professions is
(1) 2640 (2) 3640
(3) 6320 (4) 5320

Directions (238–241) : Given here is a pie chart showing the cost of gold in 2010, 2011, 2012 and 2013. Study the chart and answer the following questions.

(SSC CGL Tier-I (CBE) Exam. 04.09.2016) (Ist Sitting)



238. If the price of gold in 2013 is Rs. 31,500 per 10 gram, then the price of gold in 2011 per 10 gram is
(1) Rs. 17000 (2) Rs. 17500
(3) Rs. 18000 (4) Rs. 18500

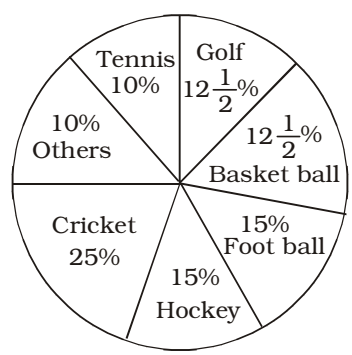
239. The ratio of the price of gold in the two years 2010 and 2013 is
(1) 1 : 2 (2) 1 : 3
(3) 1 : 4 (4) 1 : 5

240. The percentage increase in the price of gold from the year 2011 to 2013 is
(1) 50% (2) 60%
(3) 70% (4) 80%

241. The ratio of percentage increases in price of gold from 2011 to 2012 and 2012 to 2013 is
(1) 6 : 5 (2) 7 : 5
(3) 8 : 5 (4) 9 : 5

Directions (242–245) : The pie chart drawn below shows the spendings of a country on various sports during a particular year. Study the pie chart and answer the questions.

(SSC CGL Tier-I (CBE) Exam. 06.09.2016) (Ist Sitting)



242. The ratio of the amount spent on football, basketball and cricket to that spent on tennis, hockey and golf is
(1) 5:7 (2) 7:5
(3) 15:1 (4) 3:20

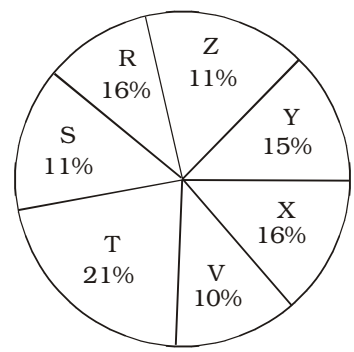
243. If the total amount spent on sports during the year was Rs. 1,20,00,000, how much was spent on basketball ?
(1) Rs. 950000
(2) Rs. 10,00,000
(3) Rs. 12,00,000
(4) Rs. 15,00,000

244. Total central angle showing the money spent on hockey, football and other during the year was
(1) 104° (2) 244°
(3) 96° (4) 144°

245. If the money spent on cricket during the year was Rs. 20,00,000, then the money spent on tennis was :
(1) Rs. 8,00,000
(2) Rs. 10,00,000
(3) Rs. 80,00,000
(4) Rs. 40,00,000

Directions (246–249) : The following pie chart shows proportion of population of seven villages in 2009. Study the pie chart and answer the questions that follow :

(SSC CGL Tier-I (CBE) Exam. 07.09.2016) (Ist Sitting)



Village	%of population Below Poverty Line
X	38
Y	52
Z	42
R	51
S	49
T	46
V	58

246. If the below poverty line population of the village 'X' is 12160, then the population of village 'S' is
(1) 18500 (2) 20500
(3) 22000 (4) 20000

247. The ratio of the below poverty line population of village 'T' to that of the below poverty line population of village 'Z' is
(1) 11:23 (2) 13:11
(3) 23:11 (4) 11:13

248. If the population of the village 'R' is 32000, then the below poverty line population of village 'Y' is
(1) 14100 (2) 15600
(3) 16500 (4) 17000

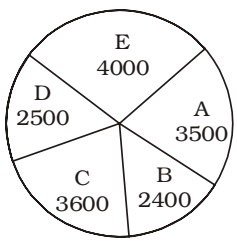
249. In 2010, the population of 'Y' and 'V' increases by 10% each and the percentage of population below poverty line remains unchanged for all the villages. If in 2009, the population of village Y was 30,000, then the below poverty line population of village 'V' in 2010 is _____
(1) 11250 (2) 12760
(3) 13140 (4) 13780

Directions (250–254) : Read the following pie–charts carefully to answer the questions.

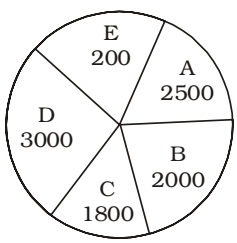
(SSC CGL Tier-II (CBE)
Exam. 30.11.2016)

Distribution of sales of Hindi and English news papers in five localities A, B, C, D and E.

Hindi News Papers



English News Papers



250. What is the difference between the total sale of English newspapers and the total sale of Hindi newspapers in all the localities together.?
(1) 7500 (2) 5600
(3) 6500 (4) 5700

251. What is the central angle corresponding to the sale of Hindi newspapers in locality E?
(1) 80° (2) 90°
(3) 60° (4) 108°

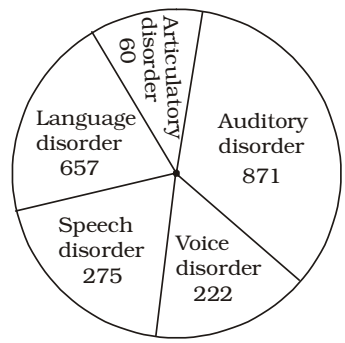
252. What is the approximate sum of the ratios of sales of English and Hindi newspapers in all localities ?
(1) 51 (2) 50
(3) 32 (4) 47

253. What is the ratio of average number of English newspapers from the localities B, C and E to the average number of Hindi newspapers from the localities A and D ?
(1) 10 : 19 (2) 19 : 10
(3) 16 : 33 (4) 9 : 11

254. What is the ratio of the average number of sale of English newspapers in localities B and D together to the average sale of Hindi newspapers in all the localities ?
(1) 25 : 32 (2) 40 : 33
(3) 33 : 40 (4) 43 : 33

Directions (255–258) : The pie-chart shows Distribution of Special Children Population during the year 1994-96. Study the pie-chart and answer the following questions.

(SSC CGL Tier-I (CBE)
Exam. 28.08.2016 (IST Sitting)



255. Find the approximate percentage distribution of children with auditory disorder.
(1) 43.7% (2) 42.7%
(3) 41.7% (4) 40.7%

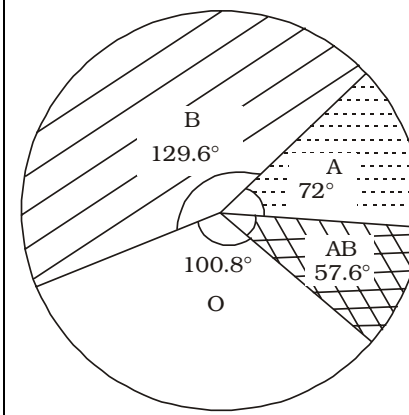
256. What is the average number of cases in different types of special children during the year 1994-96?
(1) 417 (2) 413
(3) 433 (4) 465

257. Find the ratio between articulatory disorder and speech disorder cases.
(1) 21 : 55 (2) 55 : 21
(3) 55 : 12 (4) 12 : 55

258. What is the respective ratio between language disorder and the average of the remaining disorder cases?
(1) 219 : 119 (2) 119 : 219
(3) 919 : 419 (4) 729 : 529

Directions (259–262) : This is a pie-chart for the data on A, B, O, AB blood groups of 150 donors. Observe the pie-chart and answer the questions.

(SSC CGL Tier-I (CBE)
Exam. 31.08.2016 (IIIrd Sitting)



259. The number of donors having blood group 'O' is :
(1) 50 (2) 42
(3) 30 (4) 34

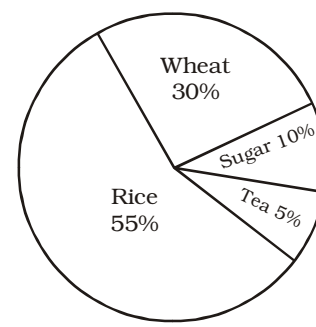
260. The number of persons having either blood group 'A' or blood group 'B' is :
(1) 84 (2) 96
(3) 78 (4) 54

261. What is the percentage of donors having blood group 'AB'?
(1) 61% (2) 26%
(3) 16% (4) 36%

262. The ratio of donors having blood group 'A' to the average of the donors having blood group 'O', 'B' and 'AB' is :
(1) 4 : 3 (2) 4 : 5
(3) 5 : 4 (4) 3 : 4

Directions (263-266) : In the given pie-chart, the comparative study of the production of Rice, Wheat, Sugar and Tea of a country is given. Study the pie-chart and answer the following questions.

(SSC CGL Tier-I (CBE)
Exam. 01.09.2016 (IIIrd Sitting)



263. From this diagram, the ratio of sum of wheat and sugar production to difference in production of rice and tea is
(1) 4 : 5 (2) 5 : 4
(3) 6 : 1 (4) 1 : 6

264. The production of rice and tea is more/greater than production of wheat by
(1) 50% (2) 100%
(3) 75% (4) 66.6%

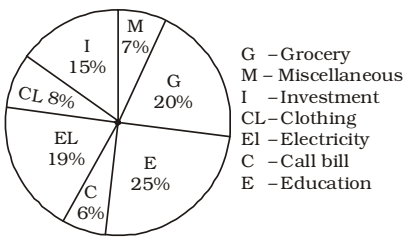
265. The central angle of percentage of wheat is
(1) 48° (2) 98°
(3) 110° (4) 108°

266. The total production of rice, wheat, sugar and tea (in kgs) is 500000 kgs. The production of rice in the country is
(1) 175000 kg (2) 395000 kg
(3) 275000 kg (4) 27500 kg

Directions (267–210) : Study the following pie-chart and answer the questions.

(SSC CGL Tier-I (CBE)
Exam. 02.09.2016 (IInd Sitting)

Budget estimated by a family for their monthly expenses.
Total salary
= Rs. 32000 per month



267. The budget estimated by the family on clothing and grocery together is :
(1) Rs. 8950 (2) Rs. 8960
(3) Rs. 8850 (4) Rs. 8860

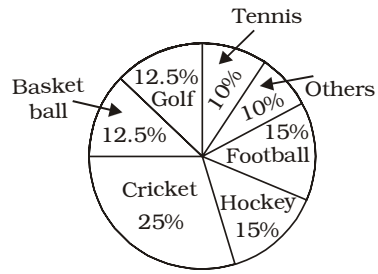
268. Due to sudden marriage, the family incurs miscellaneous expenditure of Rs. 3040 in total. Then the increase in the amount under this head from that budgeted is :
(1) Rs. 810 (2) Rs. 1738
(3) Rs. 234 (4) Rs. 800

269. The difference in the amount estimated by the family on electricity and call bill is :
(1) Rs. 4560 (2) Rs. 4470
(3) Rs. 4168 (4) Rs. 4160

270. The family actually spent Rs. 4672 on grocery. Then the difference in the amount budgeted and spent on grocery is :
(1) Rs.1528 (2) Rs.1728
(3) Rs.1278 (4) Rs.1628

Directions (271–274) : The given pie-chart shows the spendings of a country on various sports during a year. Study the graph and answer the following questions.

(SSC CGL Tier-I (CBE)
Exam. 03.09.2016 (IIIrd Sitting)



271. If the total amount spent on sports during the year was Rs. 15,000,000, the amount spent on cricket and hockey together was
(1) Rs. 6000000
(2) Rs. 5000000
(3) Rs. 3750000
(4) Rs. 7500000

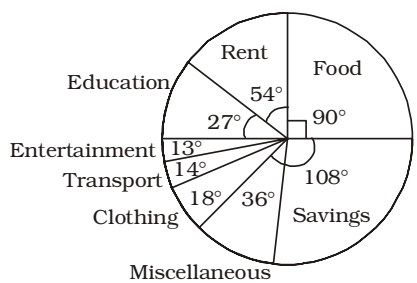
272. If the total amount spent on sports during the year was Rs. 12,000,000, how much was spent on basket ball ?
(1) Rs. 1250000
(2) Rs. 1000000
(3) Rs. 1200000
(4) Rs. 1500000

273. The respective ratio of the total amount spent on football to that spent on hockey was
(1) 1 : 15 (2) 1 : 1
(3) 15 : 1 (4) 3 : 2

274. What is the central angle for the tennis?
(1) 36° (2) 63°
(3) 33° (4) 66°

Directions (275–278) : The pie–chart, given here shows monthly expenses on various heads and savings of the family of Mr. Rao. Study the chart and answer the questions based on it.

(SSC CGL Tier-I (CBE)
Exam. 06.09.2016 (IInd Sitting)



275. The amount spent on food exceeds the total amount spent on education and clothing by
(1) $12\frac{1}{2}\%$ (2) 25%
(3) $33\frac{1}{3}\%$ (4) 50%

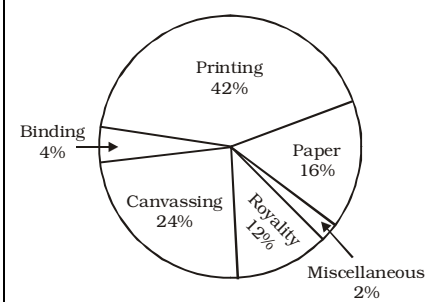
276. What per cent of his income does Mr. Rao save ?
(1) 25% (2) 30%
(3) $33\frac{1}{3}\%$ (4) 36%

277. If the total income of Mr. Rao is Rs.72000, how much house rent does he pay ?
(1) Rs.5400 (2) Rs. 9000
(3) Rs.10800 (4) Rs.12000

278. What per cent of his income , does Mr. Rao spend on clothing , transport and entertainment combined together ?
(1) $33\frac{1}{2}\%$ (2) 27%
(3) 25% (4) $12\frac{1}{2}\%$

Directions (279–282) : Study the pie-chart and answer the questions. The pie-chart given below shows the expenditure incurred in bringing out a book by a publisher.

(SSC CGL Tier-I (CBE)
Exam. 07.09.2016 (IIIrd Sitting)



279. What is the central angle showing the cost of paper?
(1) 16° (2) 32°
(3) 38.9° (4) 57.6°

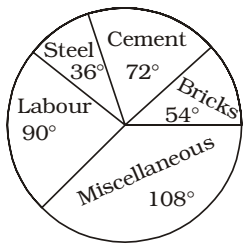
280. If the cost of printing is Rs. 16,800 , the royalty is :
(1) Rs. 2400 (2) Rs. 3200
(3) Rs. 4800 (4) Rs. 8400

281. Royalty on the book is less than canvassing expenditure by
(1) 25% (2) 50%
(3) 24% (4) 12%

282. If miscellaneous expenditures amount to Rs. 12000, the expenditure on canvassing will be
(1) Rs. 80000
(2) Rs. 144000
(3) Rs. 468000
(4) Rs. 405000

Directions (283–286) : The pie-chart given below shows the usage of materials in the construction of a house. Study the chart and answers the questions :

(SSC CGL Tier-I (CBE)
Exam. 08.09.2016 (IIIrd Sitting)



283. The percentage of steel used in the construction of house is
(1) 10% (2) 12%
(3) 20% (4) 36%

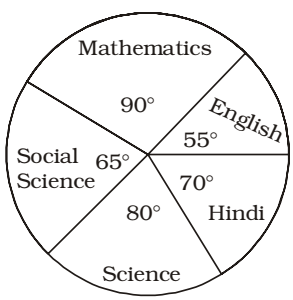
284. The ratio of cement and bricks used in the construction is :
(1) 3 : 4 (2) 2 : 3
(3) 4 : 3 (4) 2 : 5

285. If the cost of cement is Rs. 5000, then the labour cost is :
(1) Rs. 5500 (2) Rs. 6250
(3) Rs. 9000 (4) Rs. 4000

286. The average of percentages of steel, cement and miscellaneous items used in the construction is :
(1) 10% (2) 25%
(3) 20% (4) 35%

Directions (287–290) : The following pie diagram gives the marks scored by a student in different subjects – English, Hindi, Mathematics, Science and Social Science in an examination. Assuming that the total marks obtained for the examination are 540, answer the questions.

(SSC CGL Tier-I (CBE)
Exam. 11.09.2016 (IInd Sitting)



287. The marks scored in English , Science and Social science exceed the marks scored in Hindi and Mathematics by
(1) 10% (2) $10\frac{1}{9}\%$
(3) 25% (4) $11\frac{1}{9}\%$

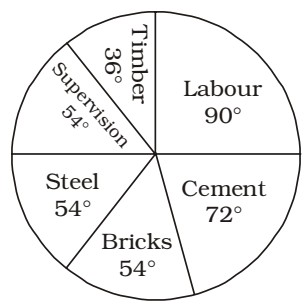
288. The subject in which the student scored 105 marks is
(1) English (2) Hindi
(3) Mathematics
(4) Science

289. The difference of marks between English and Science is the same as between
(1) Science and English
(2) Hindi and Social science
(3) English and Hindi
(4) Mathematics and Social science

290. The marks scored in Hindi and Mathematics exceed the marks scored in English and Social science by
(1) 30 (2) 40
(3) 60 (4) 75

Directions (291–294) : The pie graph indicates the break-up of the cost of construction of a house. Assuming that the total cost of construction is Rs. 6,00,000, answer the following questions.

(SSC CGL Tier-I (CBE)
Exam. 27.10.2016 (Ist Sitting)



291. The amount spent on timber is :
(1) Rs. 60,000
(2) Rs. 2,00,000
(3) Rs. 30,000
(4) Rs. 50,000

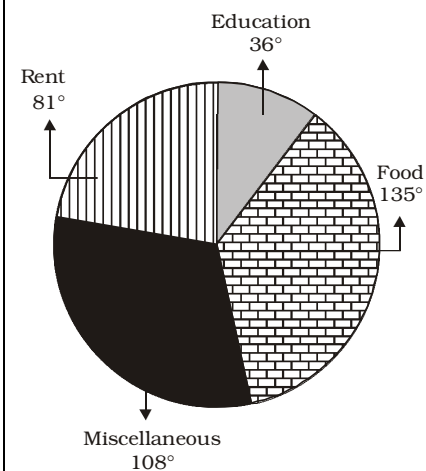
292. The amount spent on labour exceeds the amount spent on supervision by :
(1) Rs. 1,00,000
(2) Rs. 1,20,000
(3) Rs. 60,000
(4) Rs. 30,000

293. The amount spent on labour exceeds the amount spent on steel by :
(1) 10% of the total cost
(2) 11% of the total cost
(3) 13% of the total cost
(4) 9% of the total cost

294. The percentage of the total cost of construction spent on cement, steel and supervision is :
(1) 50% (2) 55%
(3) 60% (4) 65%

Directions (295-298) : The following pie-chart shows the monthly expenditure of a man on various items. If he spends Rs. 16,000 per month, answer the following questions.

(SSC CGL Tier-I (CBE)
Exam. 27.10.2016 (Ist Sitting)



295. If miscellaneous expenses be x% of the total expense, then value of x is:
(1) 22.5 (2) 37.5
(3) 36 (4) 30

296. The ratio of expenses on food and rent is :
(1) 5 : 3 (2) 3 : 5
(3) 4 : 3 (4) 3 : 4

297. The amount he spends on education is:
(1) Rs. 1,200 (2) Rs. 1,600
(3) Rs. 1,800 (4) Rs. 2,000

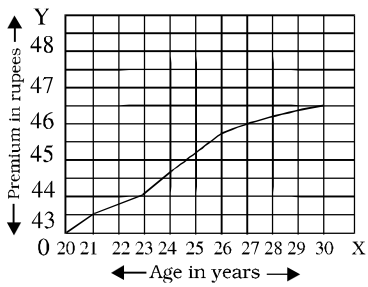
298. How much more does he spend on rent as compared to education ?
(1) Rs. 2,400 (2) Rs. 1,800
(3) Rs. 3,600 (4) Rs. 2,000

TYPE–II

Directions (1–5) : The graph given here shows the annual premiums of an insurance company, charged for an insurance of ₹ 1000 for individuals of different age-groups. Study the graph and answer each of the following questions :

(SSC CPO S.I.Exam. 07.09.2003)

Scale { along O X → 1 small div = 1 year
along O Y → 1 small div = 50 paise



1. The annual premium for a man aged 26 years for an insurance of ₹ 1000 is
(1) ₹ 46 (2) ₹ 44
(3) ₹ 45.7 (4) ₹ 45.25

2. What is the age of a person whose premium is ₹ 44.60 for an insurance of ₹ 1000 ?
(1) 23 years
(2) $23\frac{1}{2}$ years
(3) 24 years
(4) 45 years

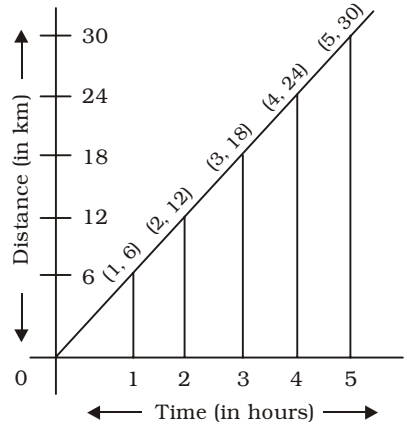
3. The premium for a man aged 22 years for an insurance of ₹ 10,000 is
(1) ₹ 435 (2) ₹ 440
(3) ₹ 43.75 (4) ₹ 437.50

4. What percent of the premium is increased if a man aged 30 years is insured for ₹ 1000 instead of a man aged 23 years ?
(1) 4.75%
(2) 5.68%
(3) 6.24%
(4) 6%

5. Each of two persons aged 21 years and 23 years is insured for ₹ 1,00,000. The difference between their annual premiums will be
(1) ₹ 100 (2) ₹ 50
(3) ₹ 25 (4) ₹ 20

Directons (6-9) : The graph given here shows a car following the linear path with uniform speed. Study the graph and answer the questions.

(SSC CPO S.I. Exam. 03.09.2006)



6. The speed of the car is
(1) 12 km/hr
(2) 6 km/hr
(3) 18 km/hr
(4) 24 km/hr

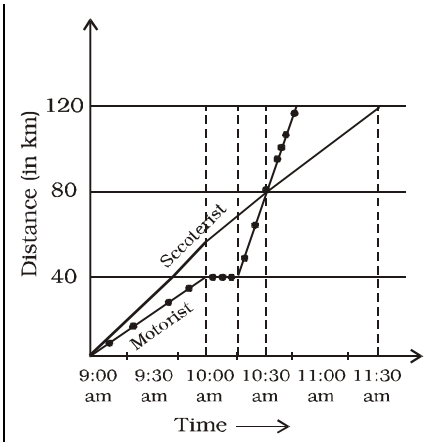
7. The speed of the car (in metres per minute) is
(1) 60 (2) 100
(3) 600 (4) 1000

8. The distance travelled by the car in 4.5 hours is
(1) 27 km
(2) 30 km
(3) 36 km
(4) 40 km

9. The car covers a distance of 15 kilometres in
(1) 3 hours
(2) 2 hours
(3) 1.5 hours
(4) 2.5 hours

Directions (10-13) : A motorist and a scooterist made a journey of 120 km at the same time and from the same place. The graph shows the progress of the journey made by each person. Study the graph and answer the questions.

FCI Assistant Grade-III
Exam.05.02.2012 (Paper-I)
East Zone (IInd Sitting)



10. At what time did the motorist meet the scooterist ?
(1) 10.30 am (2) 10.45 am
(3) 10.15 am (4) 10.20 am

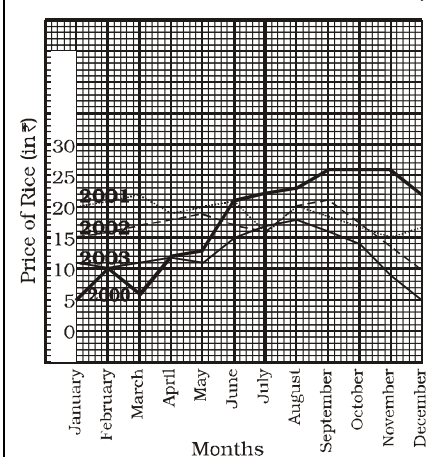
11. What was the speed of the scooterist during the journey ? (in kmph)
(1) 45 (2) 48
(3) 42 (4) 46

12. The scooterist completes the journey in (hours) :
(1) 3 (2) 2
(3) $2\frac{1}{2}$ (4) $3\frac{1}{2}$

13. How far, from the start, did the motorist meet the scooterist ? (in km)
(1) 75 (2) 70
(3) 90 (4) 80

Directions (14–17) : A graph showing the price of rice in India during the year 2000 to 2003 is given below. Study the graph carefully and answer the questions.

(SSC Delhi Police S.I.(SI) Exam. 19.08.2012)



14. For the month of May, the graph shows that the price of rice was the lowest in the year

(1) 2000 (2) 2001

(3) 2002 (4) 2003

15. The range of price for a year is the difference between the maximum and the minimum prices for that year. The graph shows that this range of price was the greatest for the year

(1) 2000 (2) 2001

(3) 2002 (4) 2003

16. The month in which the price of rice were equal for the year 2000 and 2001 was

(1) September (2) August

(3) June (4) November

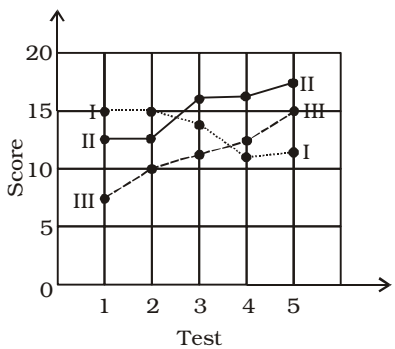
17. The maximum difference in price between any two years was in the month of

(1) January (2) November

(3) March (4) December

18. A class is divided into 3 equal groups and the class is given 5 tests in Maths. Average score of the groups and the tests is given below. The average score of the entire class in Test II is

Average scores of the groups in the first five Mental Maths tests



(1) 13 (2) 13.5

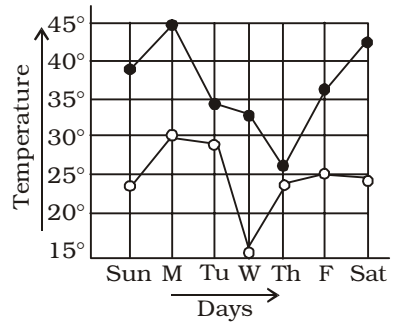
(3) 10 (4) 12.5

(SSC Multi-Tasking Staff Exam. 17.03.2013, Ist Sitting)

19. The following graph represents the maximum and minimum temperature recorded every day in a certain week. The day on which the difference between the maximum and minimum temperature was maximum is

● Maximum temperature

○ Minimum temperature



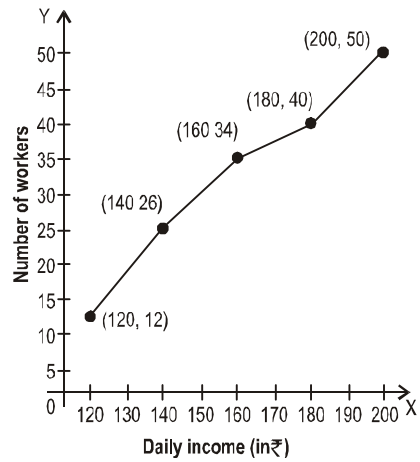
(1) Wednesday (2) Saturday

(3) Sunday (4) Monday

(SSC Multi-Tasking Staff Exam. 17.03.2013, IInd Sitting)

Directions (20–21) : The graph given below shows the daily income of 50 workers in a factory. Study the graph and answer the questions.

(SSC Multi-Tasking Staff Exam. 17.03.2013, Kolkata Region)



20. What percentage of the factory workers earn between ₹ 150 and ₹ 180 ?

(1) 6% (2) 16%

(3) 12% (4) 20%

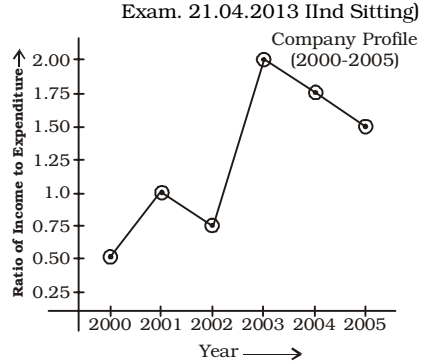
21. The median wages in the factory is

(1) ₹ 140 (2) ₹ 138

(3) ₹ 150 (4) ₹ 160

Directions (22–23) : Study the following graph and answer the questions.

(SSC Graduate Level Tier-I Exam. 21.04.2013 IInd Sitting)



22. Find the percentage decrease in income from 2001 to 2002.

(1) 50% (2) 33%

(3) $37\frac{1}{2}$ %

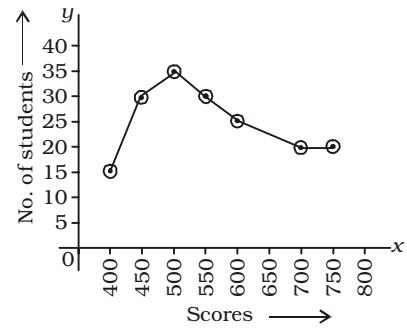
(4) Data inadequate

23. If the income shows positive growth every year throughout the period (2000 - 2005), then in how many years the expenditure shows a positive growth ?

(1) 5 (2) 3

(3) 4 (4) 2

24. The adjoining diagram is frequency polygon for the scores of students in a test. What is the total number of students appeared in the test ?

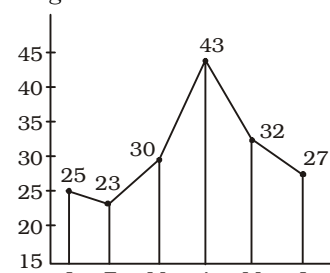


(1) 180 (2) 200

(3) 250 (4) 150

(SSC Graduate Level Tier-I Exam. 21.04.2013)

25. Given is a line graph showing the number of accidents in a city during the first 6 months of 1999.



The decrease % of accidents from May to June is

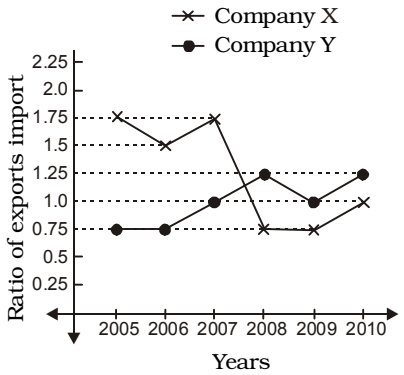
(1) $15\frac{3}{8}$% (2) $15\frac{1}{8}$%

(3) $15\frac{5}{8}$% (4) $15\frac{7}{8}$%

(SSC Graduate Level Tier-II Exam. 29.09.2013

Directions (26-27) : Study the following graph and answer the questions.

(SSC CHSL DEO & LDC Exam. 10.11.2013, IInd Sitting)

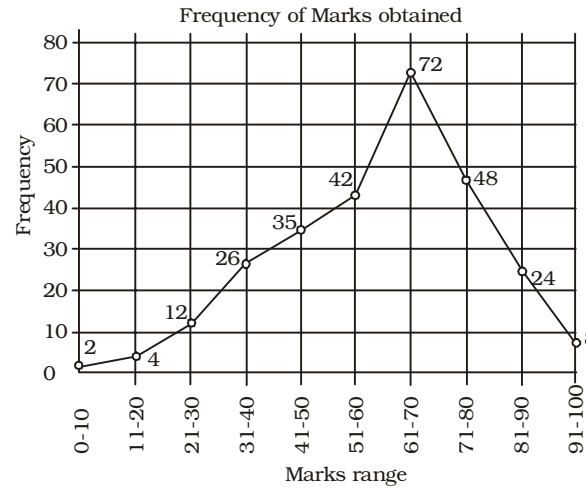


26. If the imports of company X in 2007 were increased by 40%, what would be the ratio of exports to the increased imports ?
(1) 1.25 (2) 1.75
(3) 0.25 (4) 0.75

27. In 2005, the exports of company X were double that of company Y in that year. If the imports of company X during the year were ₹ 180 crores, what was the amount (in crore ₹) of imports of company Y during the year ?
(1) 212 (2) 210
(3) 315 (4) 282

Directions (28 -31) : The marks obtained by 273 examinees are shown by the frequency polygon. Given that mean marks is 59.5. Study the frequency polygon and answer the given questions.

(SSC CHSL DEO & LDC Exam. 16.11.2014)



28. The number of examinees getting more than average marks is
(1) 72 (2) 105
(3) 152 (4) 164

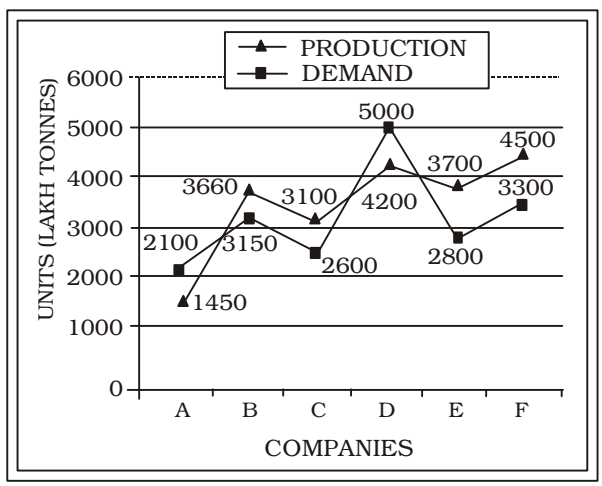
29. Percentage of the students who get above 80% marks is
(1) 9.81 (2) 10.53
(3) 11.28 (4) 11.72

30. Percentage of the students who got marks above 60% and below 80% is
(1) 43.95 (2) 48.39
(3) 51.06 (4) 56.84

31. If 40 is the pass marks, percentage of students failed is
(1) 14.56 (2) 15.84
(3) 16.11 (4) 17.25

Directions (32 - 35) : In the following questions, the Graph shows the demand and production of different companies. Study the graph and answer the questions.

(SSC CGL Tier-I Exam, 09.08.2015 (IInd Sitting) TF No. 4239378)



32. The demand of company B is what percentage of the production of company F ?
(1) 60% (2) 70%
(3) 80% (4) 50%

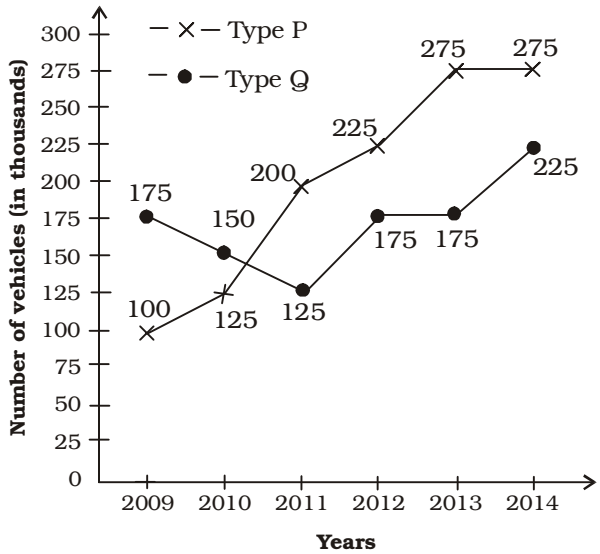
33. What is the difference between the average demand and the average production of the companies (in lakh tonnes)? [Approximately]
(1) 200
(2) 325
(3) 275
(4) 250

34. The production of company A is approximately what percent of the demand of company C ?
(1) 50%
(2) 65%
(3) 60%
(4) 55%

35. What is the ratio of the companies having more demand than production to those having more production than demand ?
(1) 2 : 3
(2) 1 : 2
(3) 3 : 2
(4) 2 : 1

Directions (36–40) : The following graph shows production (in thousands) of two types (P and Q) of vehicles by a factory over the years 2009 to 2014. Study the graph and answer the given questions.

(SSC CGL Tier-II Exam, 25.10.2015, TF No. 1099685)



36. In how many of the given years, was the production of Type P vehicles of the company more than the average production of this type vehicles in the given years?

(1) 3 (2) 4

(3) 2 (4) 5

37. Approximate percentage decrease in production of Type Q vehicles from 2010 to 2011 is

(1) 10.1 (2) 16.7

(3) 14.3 (4) 12.5

38. The total production of Type P vehicles in the years 2009 and 2011 is what percent of total production of Type Q vehicles in 2010 and 2014?

(1) 75

(2) 69.25

(3) 80

(4) 81.25

39. The ratio of total production of Type P vehicles to total production of type Q vehicles over the years is

(1) 48 : 41

(2) 5 : 8

(3) 8 : 5

(4) 41 : 48

40. The production of Type Q vehicles in 2010 was approximately what percent of Type P vehicles in 2014?

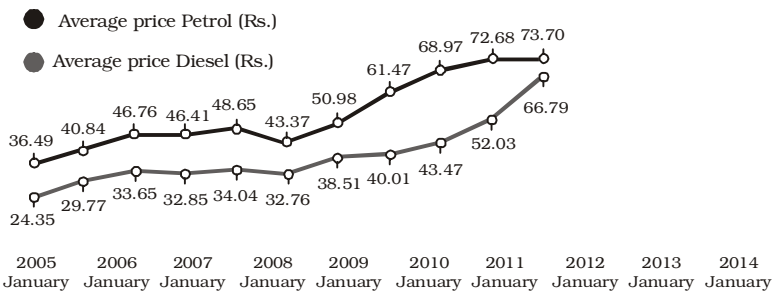
(1) 60 (2) 45.5

(3) 54.5 (4) 75

Directions (41–43) : Observe the graph below and answer the following question.

(SSC CPO SI, ASI Online Exam.05.06.2016) (IInd Sitting)

Fuel prices over last 10 years



41. What is the approximate percentage difference in average price of Petrol in 2004 and in 2014?

(1) 98%

(2) 100%

(3) 102%

(4) 105%

42. In which year the difference between average prices of petrol and Diesel is minimum?

(1) 2005 (2) 2009

(3) 2014 (4) 2004

43. What is the average of diesel prices over the years 2006–2012?

(1) 36.47

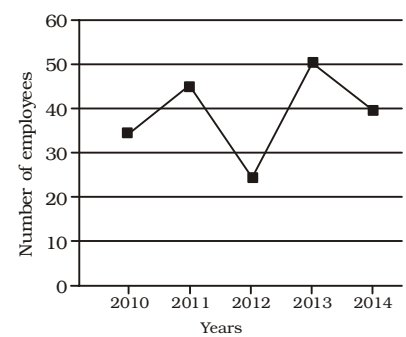
(2) 37.34

(3) 35.67

(4) 38.77

Directions (44–48) : Study the following line chart carefully and answer the questions given below it. The following line chart represents the number of employees recruited in different years in a company.

(SSC CAPFs (CPO) SI & ASI, Delhi Police Exam. 05.06.2016) (Ist Sitting)



44. What was the ratio of number of employees recruited in the year 2011 to that in the year 2013?

(1) 2 : 3
(2) 9 : 10
(3) 10 : 9
(4) 5 : 9

45. The number of employees recruited in the year 2012 was what percent of the number employees recruited in the year 2014 ?
(1) 50%
(2) 60%
(3) 62.5%
(4) 70%

46. If the total number of employees before the year 2010 was 640, then the total number of employees after 2014 was :
(1) 820
(2) 835
(3) 815
(4) 845

47. If the number of employees before 2010 was 640, what was percentage increase in 2010?
(1) 5%
(2) 5.5%
(3) 4%
(4) 4.5%

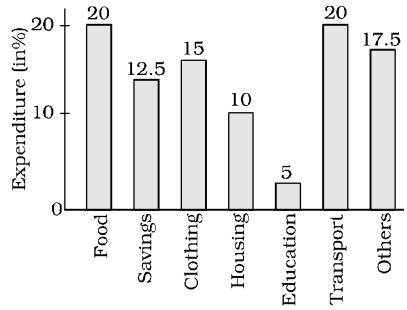
48. The number of employees recruited in 2015 was 40% more than that recruited in 2014. How many employees were recruited in 2015?
(1) 56
(2) 16
(3) 64
(4) 60

TYPE-III

Directions (1-5) : The bar graph given below shows the spending of family income on various items and savings during 1993. Observe the graph and answer the following questions :

(SSC CGL Prelim Exam. 08.02.2004 (First Sitting)

Family Income spent during 1993 (In percentage)



1. The per cent of income spent on food is :
(1) 5% (2) 10%
(3) 12.5% (4) 20%

2. The per cent of income spent on clothing exceeds that on savings by :
(1) 12.5% (2) 2.5%
(3) 10% (4) 22.5%

3. If the total income of the family during 1993 was ₹ 100000, the savings of the family in 1993 was :
(1) ₹ 1,750
(2) ₹ 20,000
(3) ₹12,500
(4) ₹ 50,000

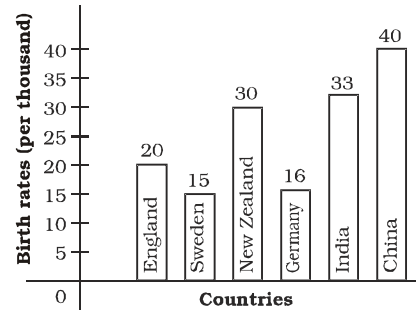
4. The total expenses of the family on transport is equal to those spent on :
(1) savings
(2) clothing
(3) food
(4) others

5. The savings of the family is more than that of expenditure incurred on :
(1) housing
(2) clothing
(3) transport
(4) others

Directions (6–10) : Study the bar diagram given below carefully and answer the following questions based on it.

(SSC CPO S.I. Exam. 05.09.2004)

Birth rates in different countries



6. The birth-rate of which country is 25% more than that of Germany?
(1) India
(2) China
(3) England
(4) New Zealand

7. The birth rate of India is what per cent of the birth-rate of England?
(1) 165%
(2) 155%
(3) 140%
(4) 100%

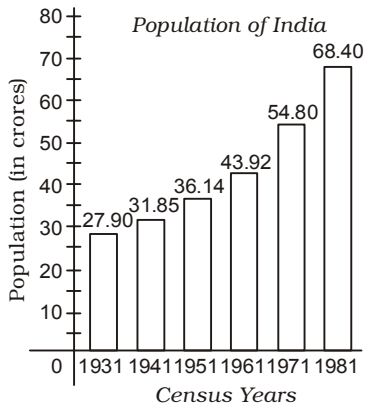
8. The birth-rate of China is how many times the birth-rate of Germany?
(1) 0.4
(2) 5.2
(3) 4.0
(4) 2.5

9. What is the ratio of birth-rate of India to that of Sweden ?
(1) 5 : 11
(2) 11 : 5
(3) 2 : 1
(4) 1 : 2

10. By how much per cent is the birth-rate of England less than the birth-rate of New Zealand?
(1) 30%
(2) $33\frac{1}{3}\%$
(3) 45%
(4) 50%

Directions (11–14) : The Bar Graph given here shows the population (in crores) of India in various census years. Observe the graph and answer the question based on it.

(SSC CGL Prelim Exam. 27.07.2008 (Second Sitting)



11. The per cent increase in population from 1971 to 1981 is
(1) 24.8% (2) 20%
(3) 16.7% (4) 22.9%

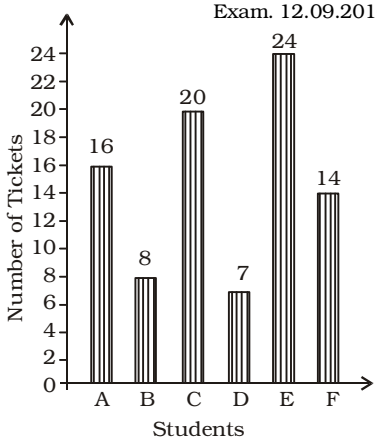
12. In which census year, the per cent increase in population is highest as compared to that in the previous census year ?
(1) 1951 (2) 1961
(3) 1971 (4) 1981

13. In which census year, the per cent increase in population is least as compared to that in the previous census year ?
(1) 1961 (2) 1951
(3) 1971 (4) 1941

14. Per year increase in population from the year 1931 to 1981 is
(1) 8100000 (2) 7600000
(3) 8900000 (4) 6700000

Directions (15-17) : The bar graph, given here, shows the number of tickets sold by 6 students A, B. C, D, E and F during a fair.
Observe the graph and answer questions based on it

(SSC (South Zone) Investigator Exam. 12.09.2010)



15. Total number of tickets sold by A, B and C is
(1) 45 (2) 44
(3) 42 (4) 40

16. The least number of tickets were sold by
(1) B (2) F
(3) A (4) D

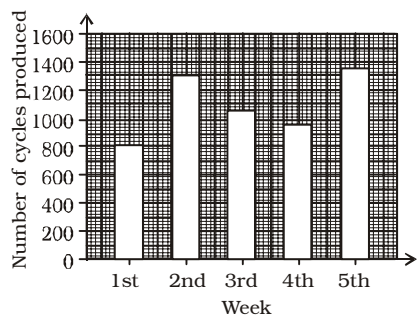
17. Total number of tickets sold by D, E and F is
(1) 47 (2) 46
(3) 45 (4) 44

Directions (18 – 20) : Given here is a bar graph showing the number of cycles produced in a factory during five consecutive weeks.

Observe the graph and answer the questions based on this graph.

(SSC CPO S.I. Exam 12.12.2010 (Paper-I)

Graph showing the number of cycles produced in a factory in 5 consecutive weeks



18. The number of cycles produced during third and fourth weeks together is
(1) 1060 (2) 1980
(3) 920 (4) 1900

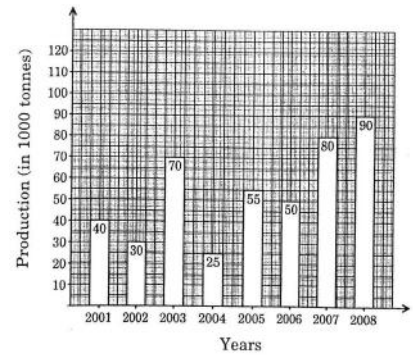
19. The number of cycles produced in the 5th week is
(1) 1400 (2) 1300
(3) 1440 (4) 1600

20. Total number of cycles produced in five consecutive weeks is
(1) 5520 (2) 1600
(3) 7200 (4) 7000

Directions (21-24) : Study the following graph and answer the questions given below it.

(SSC Multi-Tasking (Non-Technical) Staff Exam. 20.02.2011)

Production of salt by a company (in 1000 tonnes) over the years



21. What was the percentage decline in the production of salt from 2003 to 2004 ?
(1) 64.2% (2) 180%
(3) 62.4% (4) 107%

22. The average production of 2004 and 2005 was exactly equal to the average production of which of the following pair of years?
(1) 2006, 2007 (2) 2005, 2006
(3) 2002, 2006 (4) 2001, 2005

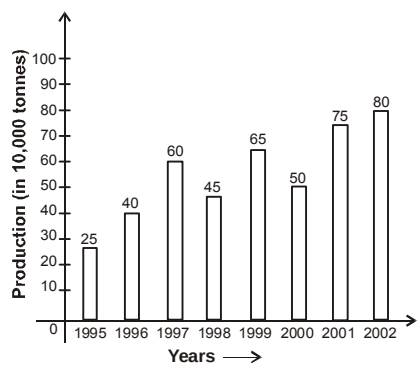
23. What was the percentage increase in production of salt in 2008 compared to that of 2001?
(1) 55.5% (2) 125%
(3) 150% (4) 220%

24. In how many of the given years was the production of salt more than the average production of the given years?
(1) 1 (2) 2
(3) 3 (4) 4

Directions (25–28) : Study the following graph and answer the questions based on it.

(SSC Multi-Tasking (Non-Technical) Staff Exam. 27.02.2011)

Production of fertilizers by a company (in 10000 tonnes over the years 1995-2002)



25. What was the percentage decline in the production of fertilizers from 1997 to 1998 ?

(1) $33\frac{1}{3}\%$ (2) 30%

(3) 25% (4) 20%

26. In how many years was the production of fertilizers more than the average production of the given years ?

(1) 1 (2) 2

(3) 3 (4) 4

27. In which year was the percentage increase in production as compared to the previous year, the maximum ?

(1) 2002 (2) 2001

(3) 1996 (4) 1997

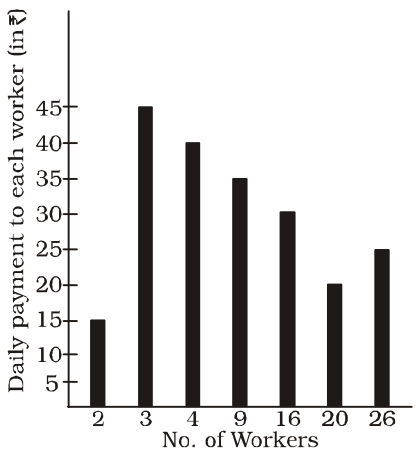
28. The ratio of total production of fertilizers in the year 1996 and 1997 to that of total production in the year 1995, 1998 and 2000 is

(1) 5 : 6 (2) 6 : 5

(3) 20 : 29 (4) 13 : 24

Directions (29-30) : Given here is a graph showing the number of workers with their daily payment by a workshop. Study the graph and answer questions based on this graph.

(SSC CISF Constable (GD) Exam. 05.06.2011)



29. The number of workers whose daily payment is ₹ 20 is

(1) 9 (2) 16

(3) 20 (4) 4

30. The total daily payment made to the group which contains 9 workers is (in ₹)

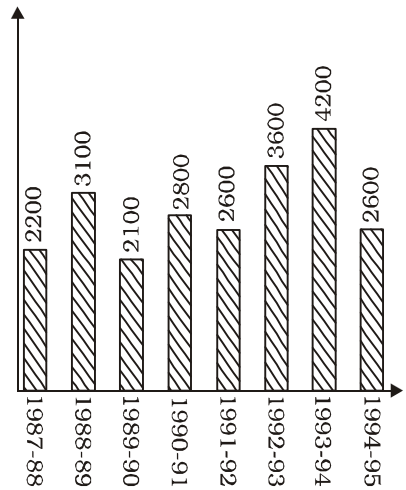
(1) 400 (2) 315

(3) 480 (4) 135

Directions (31–35) : Read the following graph and answer questions

(SSC CHSL DEO & LDC Exam. 04.12.2011 (Ist Sitting (North Zone)

Trade Deficit of a Country (in Crores of Rupees)



31. The deficit in 1993-94 was roughly how many times the deficit in 1990-91 ?

(1) 1.4 (2) 1.5

(3) 2.5 (4) 0.5

32. Percentage increase in deficit in 1993-94 as compared to deficit in 1989-90 was

(1) 200% (2) 150%

(3) 100% (4) 2100%

33. In which of the following years, the percent increase of deficit was highest over its preceding year?

(1) 1992-93 (2) 1990-91

(3) 1993-94 (4) 1988-89

34. The ratio of the number of years, in which the trade deficit is above the average deficit, to those years in which the trade deficit is below the average deficit, is

(1) 3 : 5 (2) 5 : 3

(3) 4 : 4 (4) 3 : 4

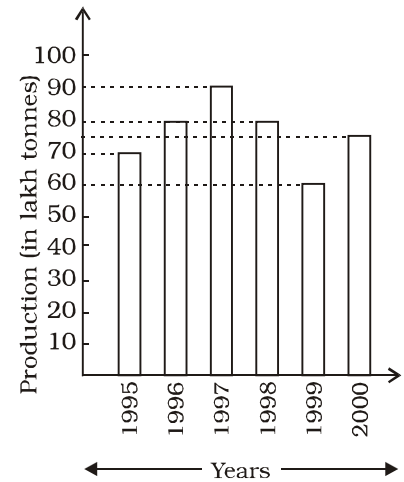
35. The deficit in 1992-93 was approximately how many percent of the average deficit?

(1) 150% (2) 140%

(3) 125% (4) 90%

Directions (36-40) : The following bar graph shows the production of fertilizers (in lakh tonnes) by a company, in six consecutive years. Study the graph and answer the questions.

(SSC CHSL DEO & LDC Exam. 04.12.2011 (IInd Sitting (North Zone)



36. The difference of the average production of fertilizers in the first three years and the average production in the last three years (in lakh tonnes) is

(1) $2\frac{1}{3}$ (2) $8\frac{1}{3}$

(3) $4\frac{1}{6}$ (4) $3\frac{1}{3}$

37. The ratio of the total production of fertilizers in the year 1995, 1997 and 1999 to the total production in the remaining three years is

(1) 44 : 45 (2) 48 : 43

(3) 44 : 47 (4) 46 : 45

38. The total production of fertilizers in the year 1998 and 2000 is $x\%$ of the total production in the years 1997 and 1999. Then x is equal to

(1) $103\frac{1}{3}$ (2) $79\frac{7}{17}$

(3) $96\frac{24}{31}$ (4) $125\frac{25}{27}$

39. The year in which the production of fertilizers is nearest to the average production of all the six years, is

(1) 1999 (2) 1998

(3) 1995 (4) 2000

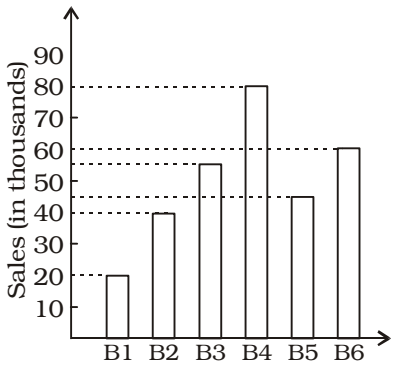
40. Perecentage increase in production of fertilizers for a year with respect to its previous year was maximum in the year

(1) 1996 (2) 1997

(3) 1999 (4) 2000

Directions (41–45) : Sales of books (in thousands) from six branches (B1, B2, B3, B4, B5, B6) of a publishing company are given below. Study the graph and answer the following questions.

(SSC CHSL DEO & LDC Exam. 04.12.2011 (IInd Sitting (East Zone)



41. The average sales of the branches B1 and B4 is equal to the average sales of the branches
(1) B3 and B5 (2) B3 and B6
(3) B5 and B6 (4) B2 and B5

42. The number of branches in which sales of books are below the average level is
(1) 2 (2) 3
(3) 1 (4) 4

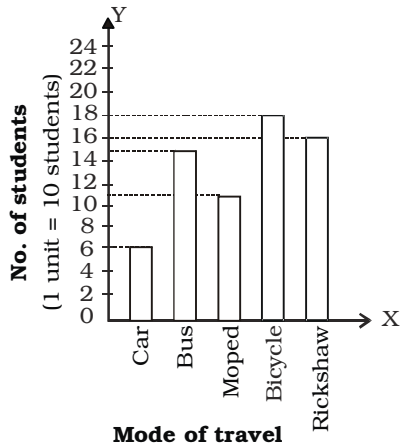
43. If the sale of books from the branch B2 increases by 30% and that from the branch B4 decreases by 10%, the approximate sale from all the six branches will
(1) increase by 1·33%
(2) decrease by 1·67%
(3) remain same
(4) decrease by 1·33%

44. If each branch can increase the sale of books by 2%, then the total number of books (in thousands) sold by the company will be
(1) 305 (2) 306
(3) 310 (4) 315

45. If all the six branches are divided into three groups such that each group has equal performance on selling books, then the minimum difference of the number of books (in thousands) sold by the two members of any group is
(1) 20 (2) 10
(3) 15 (4) 5

Directions (46–49) : The following bar diagram, represents the use of different modes of travel to school by students in a certain locality of the town. Study the graph and answer the questions.

(SSC Constable (GD) & Rifleman (GD) Exam. 22.04.2012 (Ist Sitting)



46. How many students are coming from that locality ?
(1) 500 (2) 600
(3) 560 (4) 660

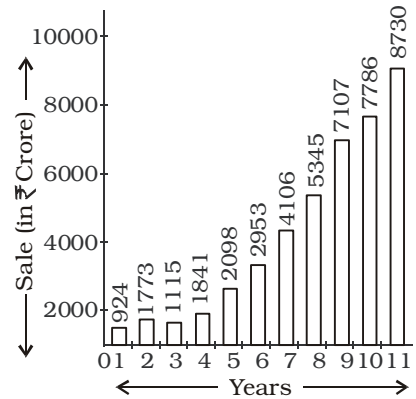
47. How many students use Bicycle and Rickshaw combined ?
(1) 240 (2) 340
(3) 140 (4) 440

48. What is the percentage of students using Bus from that locality ?
(1) $22\frac{14}{33}\%$ (2) $18\frac{2}{3}\%$
(3) $22\frac{8}{11}\%$ (4) 22%

49. What is the ratio of the students using their means of transport as Car with those using Rickshaw ?
(1) 7 : 2 (2) 8 : 3
(3) 2 : 7 (4) 3 : 8

Directions (50–54) : The following Bar chart shows the sales of a company XYZ (in ₹ Crore). Study the chart and answer the following questions.

(SSC CHSL DEO & LDC Exam. 21.10.2012 (IInd Sitting)



50. Total sales in 2nd and 3rd years together is :
(1) ₹ 2688 crores
(2) ₹ 2888 crores
(3) ₹ 2788 crores
(4) ₹ 2488 crores

51. The 2nd highest sale is in the year :
(1) 10 (2) 9
(3) 8 (4) 7

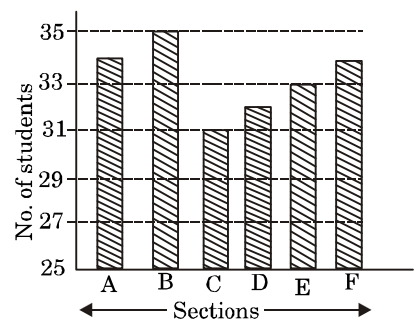
52. The 2nd least sale is in year :
(1) 2 (2) 3
(3) 6 (4) 4

53. The mean of the highest and the lowest sale (in ₹ Crore) is :
(1) ₹ 4922.5 (2) ₹ 4827
(3) ₹ 4365 (4) ₹ 4922

54. The sale in the year 4 is less than the sale in the year 8, by
(1) ₹ 3608 crores
(2) ₹ 3504 crores
(3) ₹ 3127 crores
(4) ₹ 3427 crores

Directions (55-59) : The bar graph given below shows the total number of students in six sections of a class VI of a certain school. Using this graph, answer the question.

(SSC CHSL DEO & LDC Exam. 28.10.2012 (Ist Sitting)



55. Which two sections have the same number of students ?
(1) Sec A and Sec E
(2) Sec A and Sec F
(3) Sec C and Sec D
(4) Sec B and Sec F

56. What is the ratio of the number of students in section A to that in section C ?
(1) 34 : 35 (2) 32 : 35
(3) 31 : 35 (4) 34 : 31

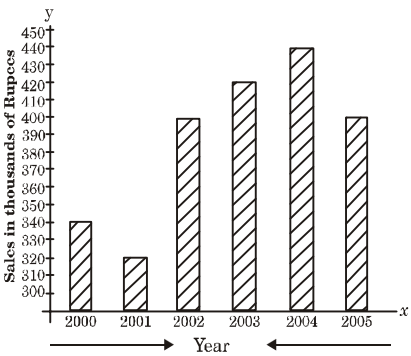
57. What is the total number of students in class VI ?
(1) 200 (2) 209
(3) 199 (4) 179

58. The ratio of the students in section B and section C is
(1) 31 : 34 (2) 34 : 35
(3) 35 : 31 (4) 31 : 35

59. The percentage of students in section C out of the total students in class VI is approximately
(1) 17.58% (2) 16.08%
(3) 16.58% (4) 15.57%

Directions (60–64) : The following bar diagram analys the sale of a company from 2000 to 2005, Examine the diagram and answer the questions.

(SSC CHSL DEO & LDC Exam. 04.11.2012 (IInd Sitting)



60. The sales in 2004 are what percentage of those in 2002?
(1) 40% (2) 4%
(3) 110% (4) 1.1%

61. In which year did the sales show the least decrease to that of the preceding year ?
(1) 2004 (2) 2001
(3) 2003 (4) 2005

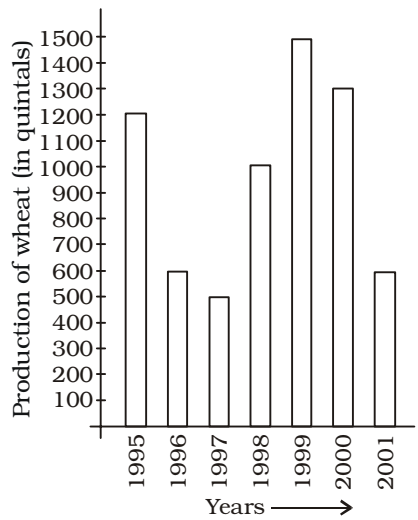
62. By what amount are the sales in 2003 more than those in 2001 ?
(1) ₹ one hundred
(2) ₹ ten thousand
(3) ₹ one lakh
(4) ₹ ten lakhs

63. The sales in 2001 are how many times those of 2002 ?
(1) 8 times (2) 0.8 times
(3) 2.5 times (4) 3 times

64. In which year did the sales show the least percent increase to that of the preceding year ?
(1) 2000 (2) 2002
(3) 2003 (4) 2004

Directions (65–68) : The graph shows the production of wheat in different years of a particular State. Study the graph and answer questions.

(SSC Graduate Level Tier-I Exam. 11.11.2012 (Ist Sitting)



65. The year in which the production reached maximum is
(1) 1995 (2) 1997
(3) 1999 (4) 2000

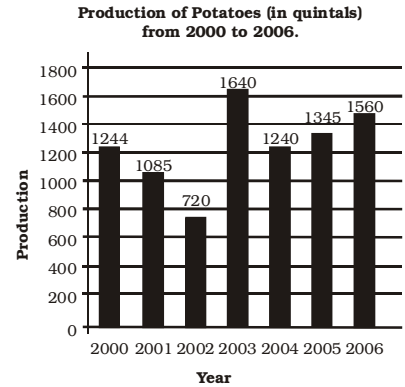
66. The percentage increase in production of wheat from 1997-1998 is
(1) 100% (2) 150%
(3) 90% (4) 120%

67. The year which had the percentage of decrease vis-a-vis its previous year in production as $13\frac{1}{3}\%$ is
(1) 1996-97 (2) 1995-96
(3) 1999-2000 (4) 2000-01

68. The total production from the year 1995 to 1998 (in quintals) is
(1) 3000 (2) 3100
(3) 3200 (4) 3300

Directions (69–70) : The bar diagram below shows the production of potatoes (in quintals) from the year 2000 to 2006. Study the diagram and answer the following questions.

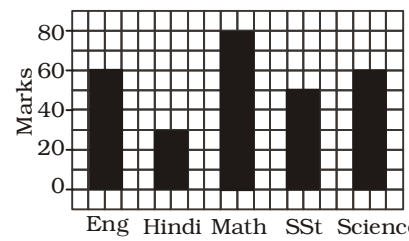
(SSC Multi-Tasking Staff Exam. 10.03.2013)



69. Considering the average production during this period, the number of years in which the production is above average is :
(1) 1 (2) 2
(3) 3 (4) 4

70. During this period, the highest rate of decline in production is:
(1) 24.4% (2) 28.22%
(3) 33.64% (4) 35.32%

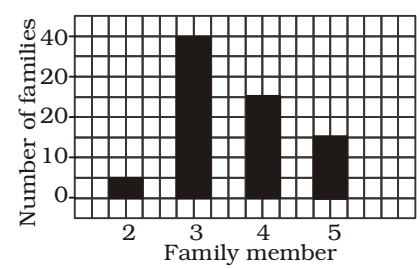
71.



The above bar graph show the marks obtained by a student in an examination. What is the average marks obtained by the student ?
(1) 55 (2) 56
(3) 57 (4) 58

(SSC Graduate Level Tier-I Exam. 21.04.2013 IInd Sitting)

72.



Study the bar graph carefully and answer the following question.

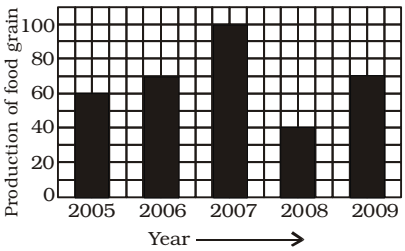
Which type of family is the most common ?

(1) 2 members (2) 3 members

(3) 4 members (4) 5 members

(SSC Graduate Level Tier-I Exam. 21.04.2013 IInd Sitting)

73.



Study the above bar graph showing the production of food grains (in million tons).

What is the ratio between the maximum production and the minimum production during the given period ?

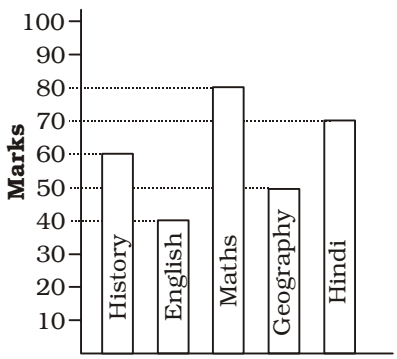
(1) 1 : 2 (2) 2 : 3

(3) 3 : 4 (4) 5 : 2

(SSC Graduate Level Tier-I Exam. 21.04.2013)

Directions (74-75) : The bar graph shows the marks obtained by a student in an examination out of 100 marks in each subject. Study the graph and answer the questions.

(SSC (CHSL DEO & LDC Exam. 20.10.2013)



74. The ratio of the marks of Maths and History is

(1) 6 : 5 (2) 8 : 5

(3) 3 : 4 (4) 4 : 3

75. The average marks of Hindi and English is

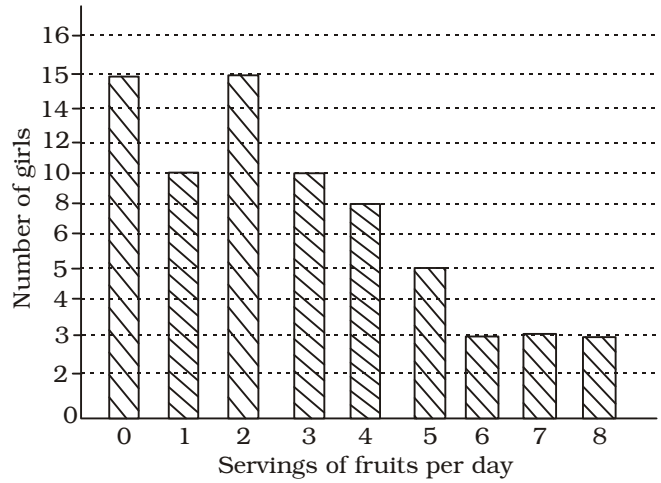
(1) 65 (2) 50

(3) 55 (4) 60

Directions (76-78) : The distribution of fruit consumption in a sample of 72 seventeen - year - old girls is given in the graph below. Study the graph and answer the questions.

(SSC CGL Tier-I Exam. 26.10.2014)

Distribution of fruit consumption



76. How many of these girls ate fewer than two servings per day ?

(1) 15 (2) 40

(3) 25

(4) None of these

77. What percent of these girls ate six or more servings per day ?

(1) 12.5% (2) 13%

(3) 10% (4) 11%

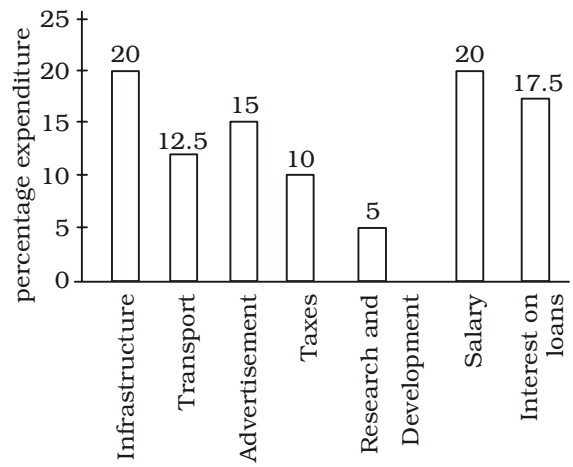
78. How many of these girls ate more than two servings but less than six servings per day ?

(1) 26 (2) 18

(3) 23 (4) 38

Directions (79 – 83) : The bar-graph given below shows the percentage distribution of total expenditures of a company under various expense heads during 2013. Study the graph and answer the given questions.

(SSC CHSL DEO Exam. 16.11.2014 (Ist Sitting)



79. The expenditure on the interest on loans is what percent more than the expenditure on transport ?

(1) 5% (2) 10%

(3) 20% (4) 40%

80. The ratio of the total expenditure on infrastructure and transport to the total expenditure on taxes and interest on loans is

(1) 5 : 4 (2) 8 : 7

(3) 9 : 7 (4) 13 : 11

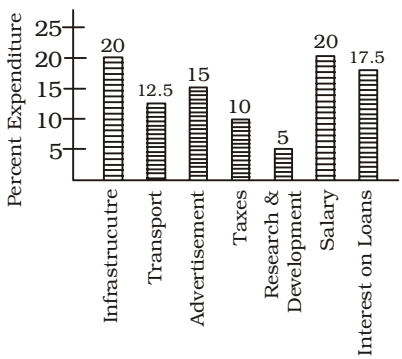
81. If the expenditure on advertisement is ₹ 2.10 crores, then the difference between the expenditures on transport and taxes is
(1) ₹ 25 lakhs (2) ₹ 35 lakhs
(3) ₹ 65 lakhs (4) ₹ 95 lakhs

82. If the total amount of expenditure of the company is N times the expenditure on research and development, then the value of N is
(1) 5 (2) 18
(3) 20 (4) 27

83. If the interest on loans amounts ot ₹ 2.45 crores, then the total amount of expenditure on advertisement, taxes and research and developments is
(1) ₹ 2.4 crores (2) ₹ 4.2 crores
(3) ₹ 5.4 crores (4) ₹ 7 crores

Directions (84–87) : The bar graph shows the percentage distribution of the total expenditures of a company under various expense heads during 2005. Study the bar graph and answer the following **four** questions.

(SSC CAPFs SI, CISF ASI & Delhi Police SI Exam, 21.06.2015 IInd Sitting)



84. If the expenditure on advertisement is Rs. 2.10 crores, then the difference between the expenditure on transport and taxes is equal to
(1) Rs. 65 lakhs (2) Rs. 1.25 lakhs
(3) Rs. 35 lakhs (4) Rs. 95 lakhs

85. The ratio of the total expenditure on infrastructure and transport to the total expenditure on taxes and interest on loans is
(1) 5 : 4 (2) 13 : 11
(3) 9 : 7 (4) 8 : 7

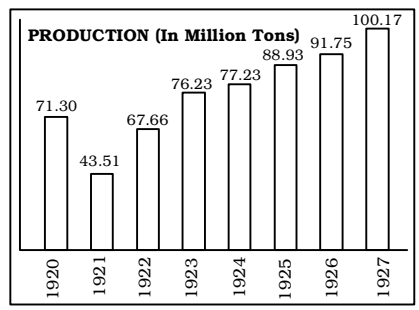
86. If the interest on loans amounted to Rs. 2.45 crores, then the total amount of expenditure on advertisement, taxes and research and development is equal to
(1) Rs. 3 crores
(2) Rs. 5.4 crores
(3) Rs. 4.2 crores
(4) Rs. 7 crores

87. The expenditure on the interest on loans is by what percent more than the expenditure on transport ?
(1) 20% (2) 40%
(3) 5% (4) 10%

Directions (88–91) : The following table shows the worldwide production of steel in 1920–1927. Study the table and answer the questions.

(SSC CHSL (10+2) LDC, DEO & PA/SA Exam, 01.11.2015, IInd Sitting)

Year	1920	1921	1922	1923	1924	1925	1926	1927
Production (In million tons)	71.30	43.51	67.66	76.23	77.23	88.93	91.75	100.17



88. The difference of the production of steel in the year 1923 and 1924 is x% of 1927. Then the value of x is approximately
(1) 0.01 (2) 0.1
(3) 0.001 (4) 1

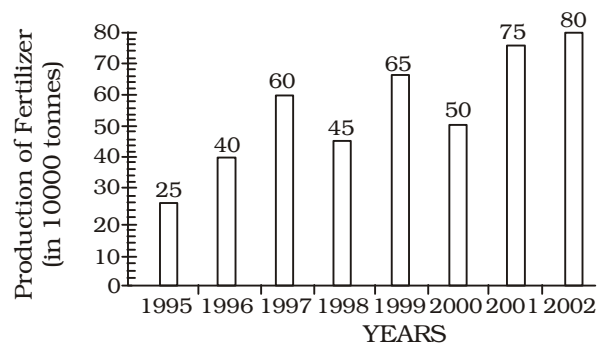
89. The ratio of production of steel in the year 1924 and 1925 to that of 1923 and 1927 is
(1) 2005 : 2077
(2) 2077 : 2205
(3) 2205 : 2007
(4) 2205 : 2077

90. The number of years during which the company has its production less than the average production during 1920–1927 is approximately
(1) 6 (2) 4
(3) 3 (4) 2

91. The average production of steel is (in million tonnes)
(1) 76.09 (2) 74.07
(3) 77.10 (4) 75.13

Directions (92–96) : Sutdy the following bar graph and answer the questions.

(SSC CHSL (10+2) LDC, DEO & PA/SA Exam, 06.12.2015 (IInd Sitting) TF No. 3441135)



92. The number of years, the production of fertilizers was more than average production of the given years is :
(1) 4 (2) 2
(3) 1 (4) 3

93. The average production of 1996 and 1997 is exactly equal to the average production of the years
(1) 1995 and 2001
(2) 1995 and 1999
(3) 1999 and 2000
(4) 2000 and 2001

94. The percentage increase in production of fertilizers in 2002 compared to that in 1995 is :
(1) 220% (2) 180%
(3) 240% (4) 200%

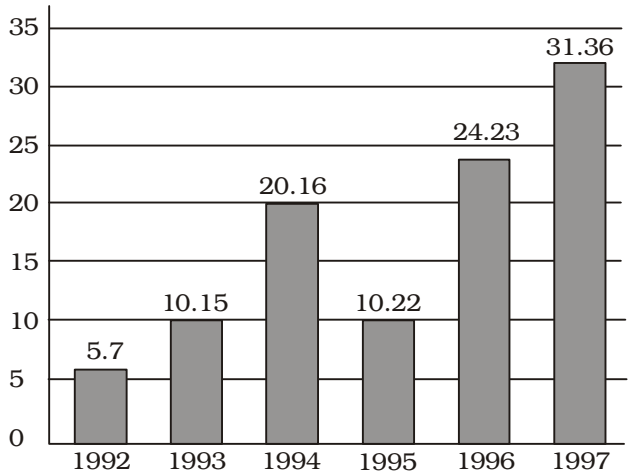
95. The percentage increase in production as compared to previous year is maximum in year :
(1) 1999 (2) 1996
(3) 1997 (4) 2002

96. The percentage decline in the production of fertilizers from 1997 to 1998 is :
(1) 26 % (2) 25%
(3) 27.5% (4) 23%

Directions (97–100) : Study the Bar diagram carefully and answer the questions.

(SSC CGL Tier-I (CBE) Exam. 10.09.2016)

The Bar diagram shows the trends of foreign direct investment (FDI) into India from all over the World (in Rs. crores).



97. The sum of FDI of 1992 and 1993 is
(1) Rs. 15.58 crores
(2) Rs. 15.85 crores
(3) Rs. 15.22 crores
(4) Rs. 15.65 crores

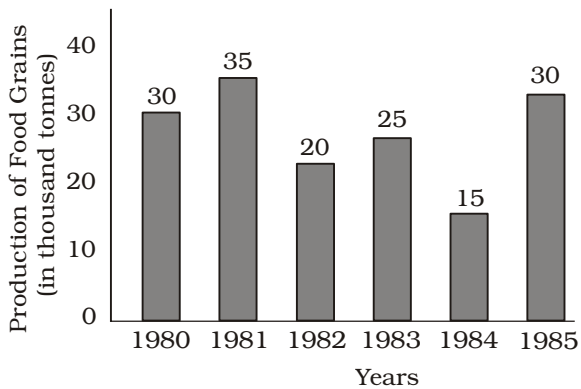
98. The year which exhibited the 2nd highest growth percentage in FDI in India over the period shown is
(1) 1993
(2) 1994
(3) 1997
(4) 1996

99. The ratio of investment in 1997 to the average investment is
(1) 2 : 1
(2) 1 : 2
(3) 1 : 1
(4) 3 : 1

100. The absolute difference in FDI to India between 1996 and 1997 is
(1) Rs. 7.29 crores
(2) Rs. 7.13 crores
(3) Rs. 7.16 crores
(4) Rs. 7.22 crores

Directions (101–104) : The graph shows the production of food grains of a country in different years. Study the graph and answer the questions.

(SSC CGL Tier-I (CBE) Exam. 11.09.2016) (Ist Sitting)



101. The sum of the production of food grains in the years 1982 and 1984 is equal to that in the year :
(1) 1980 (2) 1981
(3) 1983 (4) 1985

102. The difference between the production of food grains in the years 1981 and 1985 is
(1) 500 tonnes (2) 1000 tonnes
(3) 5000 tonnes (4) 10000 tonnes

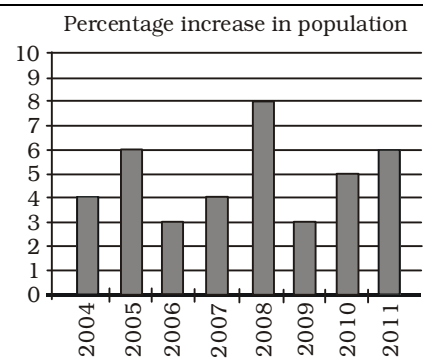
103. The percentage increase in production from 1984 to 1985 was
(1) 15 (2) 30
(3) 50 (4) 100

104. The two consecutive years in which rate of change of production of food grains is minimum are
(1) 1980 and 1981
(2) 1982 and 1983
(3) 1984 and 1985
(4) 1983 and 1984

Directions (105–108) : Following table gives details about the percentage change of the population in a particular town for given years. Go through the chart given and answer the questions that follow :

(SSC CPO Exam. 06.06.2016)

(Ist Sitting)



105. How many years witnessed a decrease in population across all the given years ?
(1) 1 (2) 2
(3) 3 (4) 0

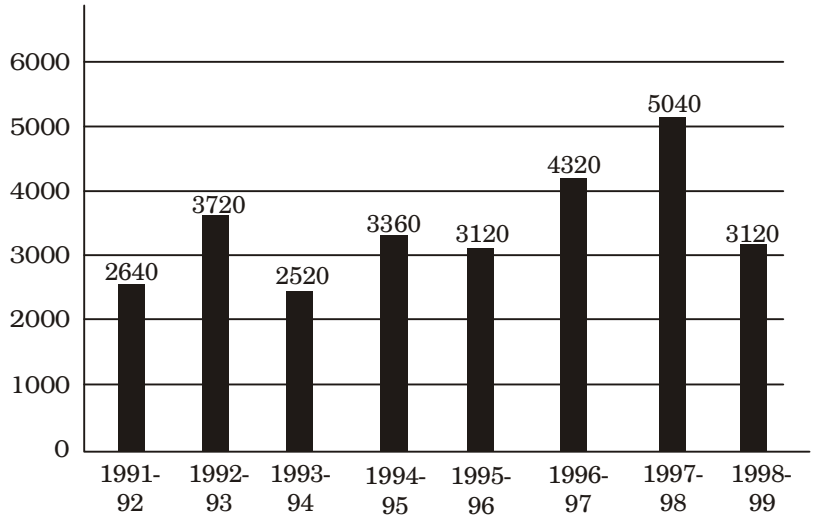
106. Which year out of these 8 years has the highest population ?
(1) 2008 (2) 2005
(3) 2010 (4) 2011

107. What was the population of the town in year 2009 ?
(1) 3 (2) 5
(3) 4
(4) Can not be determined

108. What was the percentage increase in population of the town from 2005 to 2008 ?
(1) 19%
(2) 33.33%
(3) 22.6%
(4) Can not be determined

Directions (109–112) : Study the following bar-diagram carefully and answer the questions. The bar graph given below shows the foreign exchange reserves of a country (in million US $) from 1991-1992 to 1998 - 1999.

(SSC CGL Tier-I (CBE) Exam. 27.08.2016) (Ist Sitting)



109. The ratio of the number of years, in which the foreign exchange reserves are above the average reserves, to those in which the reserves are below the average reserves is
(1) 2 : 6 (2) 3 : 4
(3) 3 : 5 (4) 4 : 4

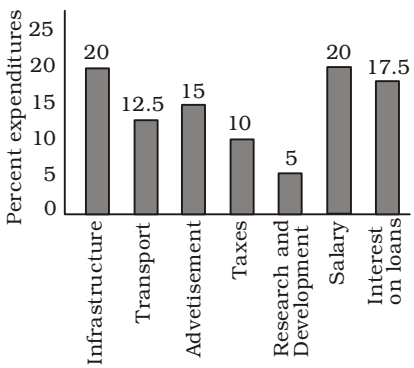
110. The foreign exchange reserves in 1996-97 were **approximately** what per cent of the average foreign exchange reserves over the period under review ?
(1) 95% (2) 110%
(3) 115% (4) 124%

111. The percentage increase in the foreign exchange reserves in 1997-98 over 1993-94 is
(1) 100 (2) 150
(3) 200 (4) 120

112. Ratio of the sum of foreign exchange reserves during the years 1991-92, 1992-93, 1993-94 to that during the years 1995-96, 1996-97, 1997-98 is
(1) 31 : 35 (2) 35 : 31
(3) 37 : 52 (4) 52 : 37

Directions (113–116) : Study the bar-graph given below which shows the per cent distribution of total expenditures of a company under various expenses and answer the questions.

(SSC CGL Tier-I (CBE) Exam. 28.08.2016) (IInd Sitting)



113. The expenditure on the interest on loans is more than the expenditure on transport by
(1) 5% (2) 10%
(3) 40% (4) 30%

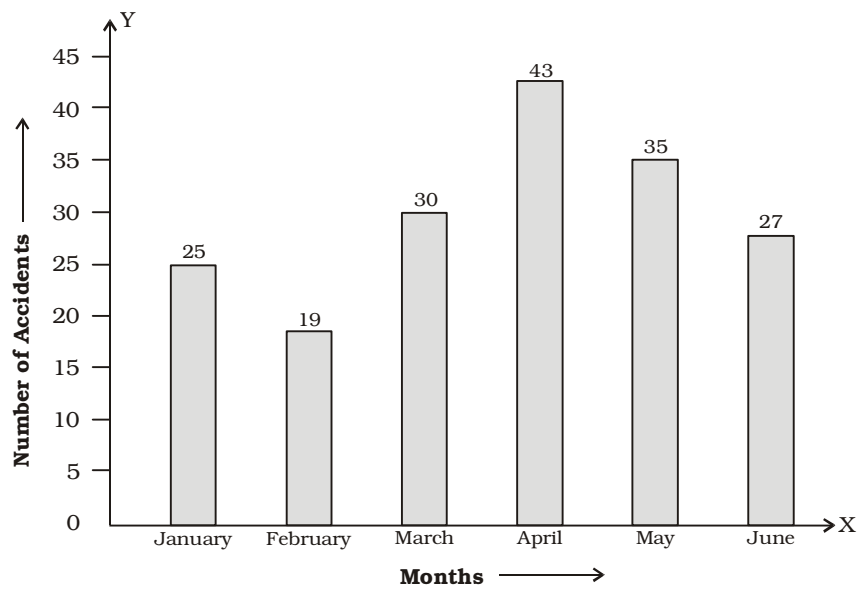
114. If the interest on loans amounted to Rs. 2.45 crores, then the total amount of expenditure on advertisement, taxes and research and development is :
(1) Rs. 7 crores
(2) Rs. 4.2 crores
(3) Rs. 5.4 crores
(4) Rs. 3 crores

115. The ratio of the total expenditure on infrastructure and transport to the total expenditure on taxes and interest on loans is :
(1) 5 : 4 (2) 8 : 7
(3) 9 : 7 (4) 13 : 11

116. If the total expenditure of the company is Rs. 20 crores, then the ratio of expenditure on transport to that on salary is
(1) 5 : 4 (2) 4 : 5
(3) 5 : 8 (4) 8 : 5

Directions (117–120) : The bar-chart is showing the number of accidents in a city during the first six month of a year. Examine the bar chart and answer the following questions.

(SSC CGL Tier-I (CBE) Exam. 01.09.2016) (IInd Sitting)



117. What is the percentage of accidents in the month of April to the total accidents in the city ?
(1) 15% (2) 20%
(3) 22% (4) 24%

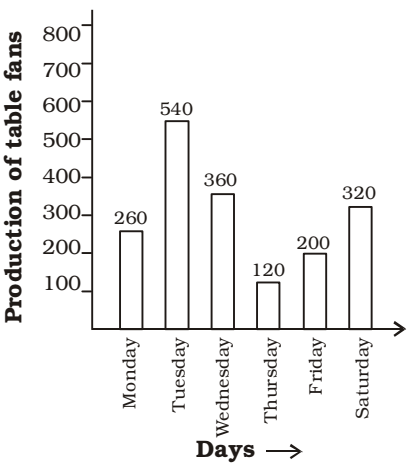
118. Compared to the month of January, what is the percentage of decrease in accidents in the month of February?
(1) 25 (2) 24
(3) 30 (4) 27

119. By what number, is the number of accidents that occurred in April is greater than the average number of accidents that occurred during the 6 months period ?
(1) 13.17 (2) 8
(3) 9 (4) 11

120. Percentage of decrease in the number of accidents from May to June is :
(1) $15\frac{4}{7}\%$ (2) $27\frac{3}{7}\%$
(3) $22\frac{6}{7}\%$ (4) $18\frac{5}{7}\%$

Directions (121-124) : The following bar graph shows the production of table fans in a factory during one week. Study the bar graph and answer the given questions.

(SSC CGL Tier-I (CBE)
Exam. 29.08.2016 (IST Sitting)



121. The maximum production exceeds the minimum production by :
(1) 400 (2) 420
(3) 500 (4) 540

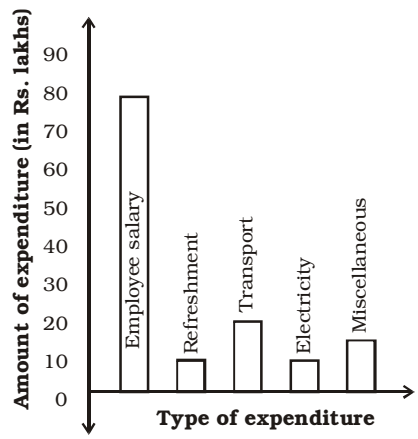
122. The average production of table fans in that week is :
(1) 370 (2) 280
(3) 300 (4) 250

123. The ratio of the total production of table fans in the factory from Monday to Wednesday to that from Thursday to Saturday is :
(1) 19 : 26 (2) 26 : 19
(3) 29 : 16 (4) 16 : 29

124. The average production of table fans on Monday and Tuesday exceeds the average production of table fans during the week by
(1) 150 fans (2) 100 fans
(3) 140 fans (4) 200 fans

Directions (125–128) : The bar diagram shows the monthly expenditure of a company. Study the graph and answer the questions.

(SSC CGL Tier-I (CBE)
Exam. 30.08.2016 (IIIrd Sitting)



125. The percentage of money spent on miscellaneous is
(1) $7\frac{2}{17}$ (2) $17\frac{2}{7}$
(3) $11\frac{1}{9}$ (4) $9\frac{1}{11}$

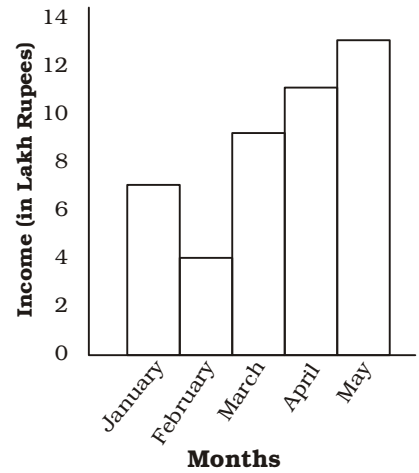
126. The fraction of money spent on refreshment is :
(1) $13\frac{1}{2}$ (2) $\frac{2}{27}$
(3) $\frac{1}{10}$ (4) 10

127. The total monthly expenditure of the company is :
(1) Rs. 153 lakhs
(2) Rs. 315 lakhs
(3) Rs. 135 lakhs
(4) Rs. 531 lakhs

128. The ratio between expenditure on transport and employee salary on monthly basis is :
(1) 1 : 4 (2) 4 : 3
(3) 3 : 4 (4) 4 : 1

Directions (129–132) : The bar graph given indicates the income of a firm. Study the graph and answer the questions given.

(SSC CGL Tier-I (CBE)
Exam. 09.09.2016 (IIIrd Sitting)



129. Which period shows a steady increase of income ?
(1) March to May
(2) February to April
(3) February to May
(4) Insufficient data to predict

130. During which month, the ratio of the income to that of the previous month is the largest?
(1) February
(2) March
(3) April
(4) May

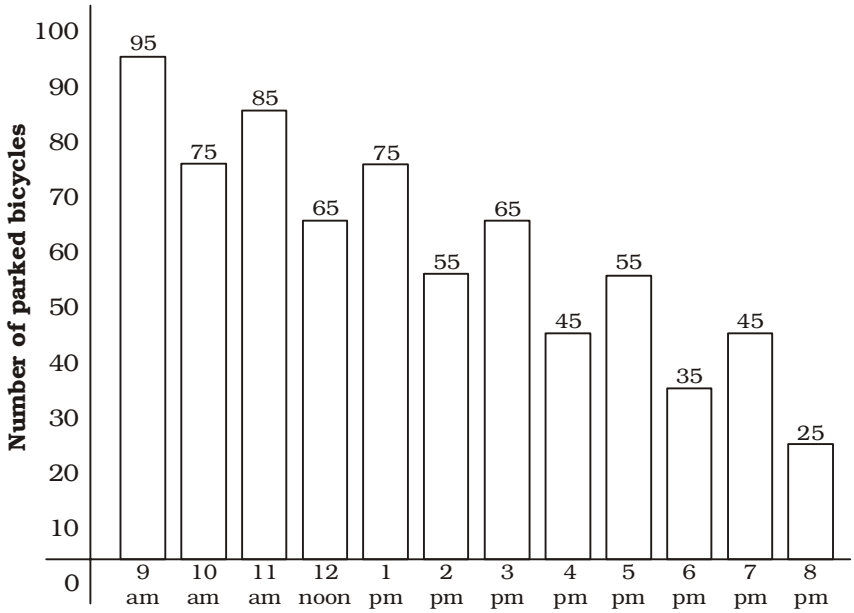
131. The income in May is how many times to that of February?
(1) 3.25
(2) 4
(3) 3.5
(4) 5

132. The average monthly income of the firm (in lakh rupees) is :
(1) 7.6
(2) 6
(3) 8.8
(4) None of these

Directions (133–136) : Study the bar diagram and answer the following questions.

The bar diagram shows the number of bicycles parked in the parking space of a hall at various points of time.

(SSC CGL Tier-I (CBE)
Exam. 10.09.2016 (IInd Sitting)



133. The charges for parking is Re. 1 per hour. What will be the total collection from 9 am to 7 pm?
(1) Rs. 625 (2) Rs. 635
(3) Rs. 685 (4) Rs. 695

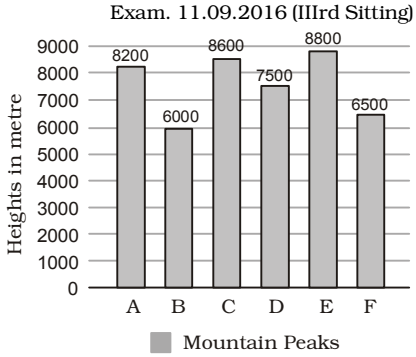
134. What is the percentage decrease in the number of parked cycles between 7 pm and 8 pm? (in whole number)
(1) 30 (2) 38
(3) 42 (4) 45

135. What is the average number of parked cycles as seen from the graph ?
(1) 40 (2) 45
(3) 55 (4) 60

136. How many times, as mentioned in the graph, is the number of parked cycles above average ?
(1) 3 (2) 4
(3) 5 (4) 6

Directions (137–140) : A bar graph showing the heights of six mountain peaks is given below. Study the bar graph and answer the questions.

(SSC CGL Tier-I (CBE) Exam. 11.09.2016 (IIIrd Sitting)



137. The average height of all the peaks (in metre) is
(1) 7601.5 (2) 7600
(3) 7599.5 (4) 7610

138. Which peak is the second highest ?
(1) B (2) C
(3) A (4) E

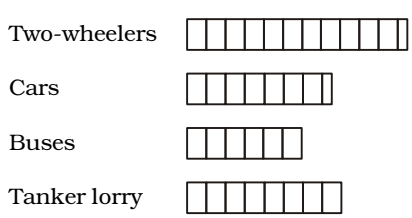
139. What is the respective ratio of the heights of the highest peak and the lowest peak?
(1) 22 : 15 (2) 15 : 22
(3) 20 : 13 (4) 13 : 22

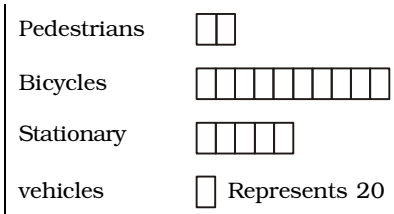
140. When the heights of the given peaks are written in ascending order, what is the average of the middle two peaks?
(1) 7950 m (2) 7560 m
(3) 7650 m (4) 7850 m

TYPE-IV

Directions (1–5) : The following is a horizontal bar diagram showing the accidents in which two-wheelers are involved with other objects. Study the diagram and answer the questions.

OBJECTS HIT





(SSC CHSL DEO & LDC Exam. 21.10.2012 (Ist Sitting)

1. The difference in percentage between the accidents involving two-wheelers and two-wheelers and two-wheelers and other objects is respectively.
(1) 77% more (2) 77% less
(3) 54% more (4) 54% less

2. 60% of the accidents are involved due to
(1) cars, buses, tanker lorry and pedestrians
(2) cars, tanker lorry, bicycles and stationary vehicles
(3) two-wheelers, cars, buses and stationary vehicles
(4) two-wheelers, cars, buses and tanker lorry

3. If the data of the bar diagram is represented by a pie-chart, and the angle of a sector of the pie-chart is 36°, then this sector represents the accidents involving
(1) pedestrians (2) bicycles
(3) buses
(4) stationary vehicles

4. The percentage of accidents in which pedestrians and cyclists are involved is
(1) 24% (2) 6%
(3) 60% (4) 20.4%

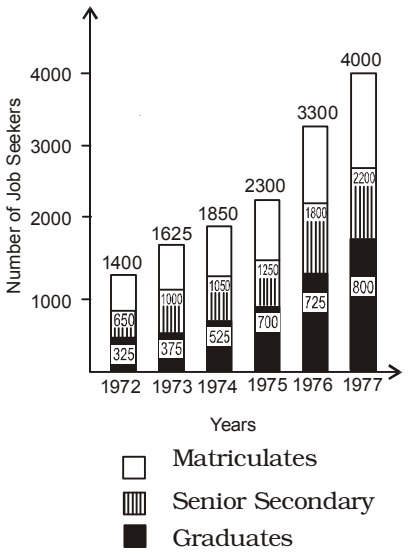
5. The percentage by which the accidents involving buses is less than the accidents involving tanker lorry is
(1) 6% (2) 4%
(3) 40% (4) 28%

Directions (6–9) : The bar graph given here shows the number of jobseekers of a state in various years at different stages of education.

Study the graph carefully and answer the questions based on it.

(SSC CPO Sub-Inspector Exam. 16.12.2007)

Job-Seekers in Various Years



6. In which year was the number of Graduate job-seekers the same as that of Senior Secondary job-seekers ?

(1) 1973 (2) 1974

(3) 1975 (4) 1976

7. In comparison to the year 1973, how many more job-seekers in all, were there in the year 1977?

(1) 700 (2) 1700

(3) 2375 (4) 2150

8. In which year, was the number of Matriculate job-seekers maximum ?

(1) 1973 (2) 1975

(3) 1972 (4) 1977

9. The number of job-seekers, having their qualification as Senior Secondary, in the year 1974 was :

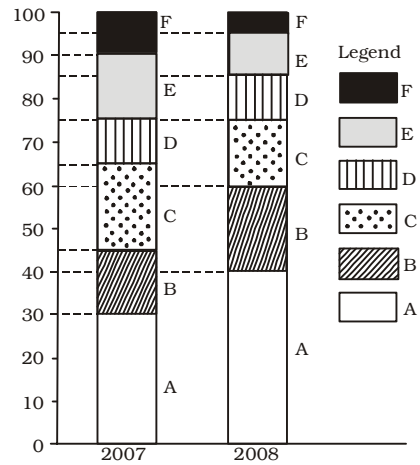
(1) 525 (2) 800

(3) 1050 (4) 1875

Directions (10–14) : The bar chart given below shows the percentage distribution of the production of various models of a mobile manufacturing company in 2007 and 2008. The total production in 2007 was 35 lakh mobile phones and in 2008 the production was 44 lakh. Study the chart and answer the following questions.

(SSC Graduate Level Tier-II Exam.16.09.2012)

Percentage of six different types of mobiles manufactured by a company over two years



10. Total number of mobiles of models A, B and E manufactured in 2007 was

(1) 24,50,000 (2) 22,75,000

(3) 21,00,000 (4) 19,25,000

11. For which models was the percentage variation in production from 2007 to 2008 the maximum ?

(1) B and C (2) C and D

(3) D and E (4) A and B

12. What was the difference in the number of B type mobiles produced in 2007 and 2008 ?

(1) 3,55,000 (2) 2,70,000

(3) 2,25,000 (4) 1,75,000

13. If the percentage production of A type mobiles in 2008 was same as that in 2007, then the number of A type mobiles produced in 2008 would have been

(1) 14,00,000 (2) 13,20,000

(3) 11,70,000 (4) 10,50,000

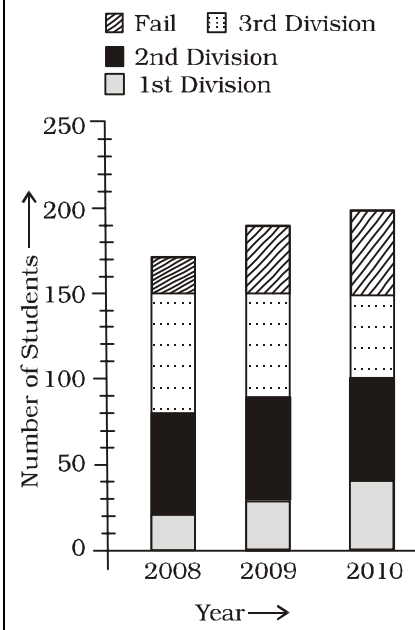
14. If 85% of the D type mobiles produced in each year were sold by the company, how many D type mobiles remained unsold ?

(1) 76,500 (2) 93,500

(3) 1,18,500 (4) 1,22,500

Directions (15 –19) : The sub divided bar diagram given below depicts H.S. Students of a school for three years. Study the diagram and answer the questions.

(SSC Graduate Level Tier-I Exam. 19.05.2013)



15. The percentage passed in 1st division in 2008 was

(1) 27% (2) 32%

(3) $15\frac{3}{8}\%$ (4) $11\frac{13}{17}\%$

16. The pass percentage in 2008 was

(1) 67% (2) 73%

(3) $79\frac{2}{3}\%$ (4) $82\frac{6}{17}\%$

17. In which year the school had the best result for H.S. in respect of percentage of pass candidates ?

(1) 2008 (2) 2009

(3) 2010

(4) The percentage of pass candidates are same for the three years.

18. The number of students passed with 3rd division in the year 2008 was

(1) 50 (2) 60

(3) 70 (4) 80

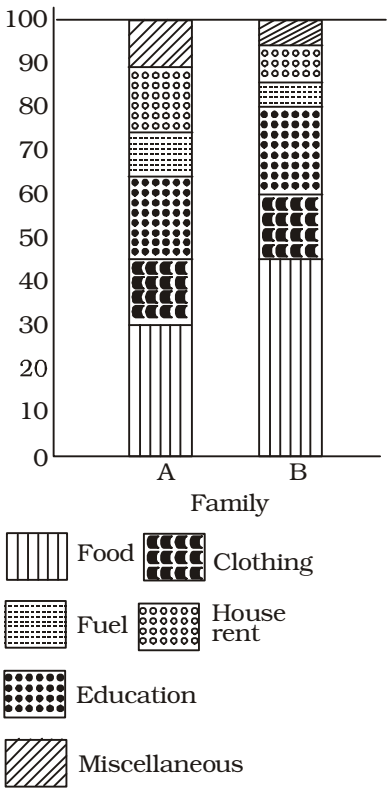
19. The percentage of the students passed with 2nd division in the year 2010 was

(1) 30% (2) 40%

(3) 50% (4) 60%

Directions (20-22) : Study the diagram and answer the questions.

(SSC CGL Tier-I Re-Exam. (2013) 27.04.2014)



20. If the total annual expenditure of family B is ₹ 10,000 then money spent on clothes during the year is

(1) ₹ 600 (2) ₹ 6000

(3) ₹ 1500 (4) ₹ 200

21. What fraction of the total expenditure is spent on Education in family A ?

(1) $\frac{2}{3}$ (2) $\frac{9}{13}$

(3) $\frac{1}{5}$ (4) $\frac{13}{20}$

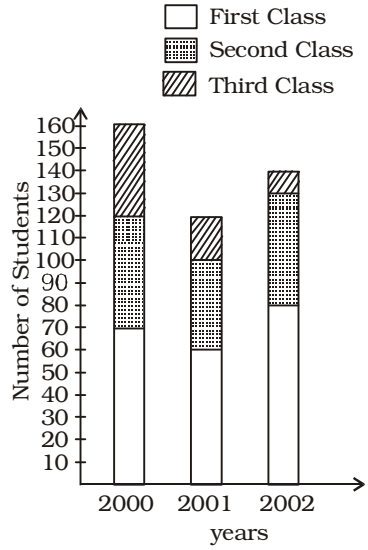
22. If the total annual expenditure of family A is ₹ 30,000 then money spent on food, clothes and houserents is.

(1) ₹ 18,000 (2) ₹ 21,000

(3) ₹ 15,000 (4) ₹ 18,500

Directions (23-26) : The sub divided bar diagram given below depicts the result of Class XII students of a school for three years. Study the diagram and answer the questions given below :

(SSC CGL Tier-I Re-Exam. (2013) 20.07.2014) (Ist Sitting)



23. The percentage of students passed with Second class in the year 2000 is

(1) $33\frac{1}{4}\%$ (2) $32\frac{1}{4}\%$

(3) $30\frac{1}{4}\%$ (4) $31\frac{1}{4}\%$

24. The percentage of students passed with First class in the year 2001 is

(1) 50% (2) 45%

(3) 60% (4) 65%

25. The number of students passed with Third class in the year 2002 is

(1) 130 (2) 10

(3) 140 (4) 20

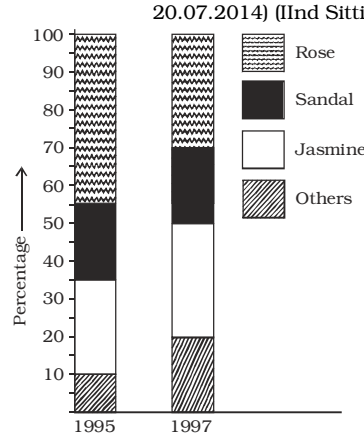
26. The number of students passed with Second class in the year 2002 is

(1) 80 (2) 130

(3) 50 (4) 100

Directions (27-29) : The production figures of a perfume manufacturer are given in the form of percentage in sub-divided bar diagram. Study the diagram and answer the questions.

(SSC CGL Tier-I Re-Exam. (2013) 20.07.2014) (IInd Sitting)



27. What is the ratio of percentage production of rose perfume during 1995 to that during the year 1997 ?

(1) 4 : 3 (2) 3 : 2

(3) 2 : 3 (4) 5 ; 4

28. What is the percentage of production of sandal perfume during the year 1995 over that during 1997 ?

(1) 100% (2) 1%

(3) 0% (4) 50%

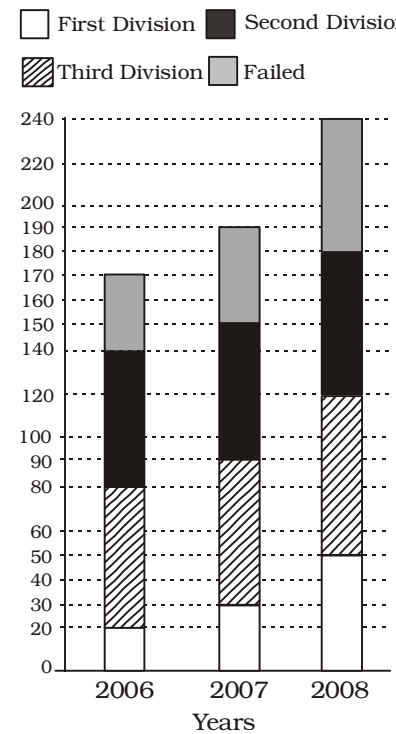
29. What is the production of jasmine perfume in the year 1997? Given that during the year 1997 total perfumed production was 5000 units.

(1) 1200 (2) 2500

(3) 2000 (4) 1500

Directions (30 – 33) : The subdivided bar diagram given below depicts the result of B.Com. students of a college for 3 years. Study the graph and answer the given questions.

(SSC CHSL DEO Exam. 16.11.2014 (Ist Sitting)



30. How many percent of students passed in first division in 2007?

(1) $15\frac{15}{19}\%$ (2) $11\frac{13}{17}\%$

(3) $16\frac{2}{3}\%$ (4) $12\frac{1}{2}\%$

31. What was the pass percentage in 2008 ?

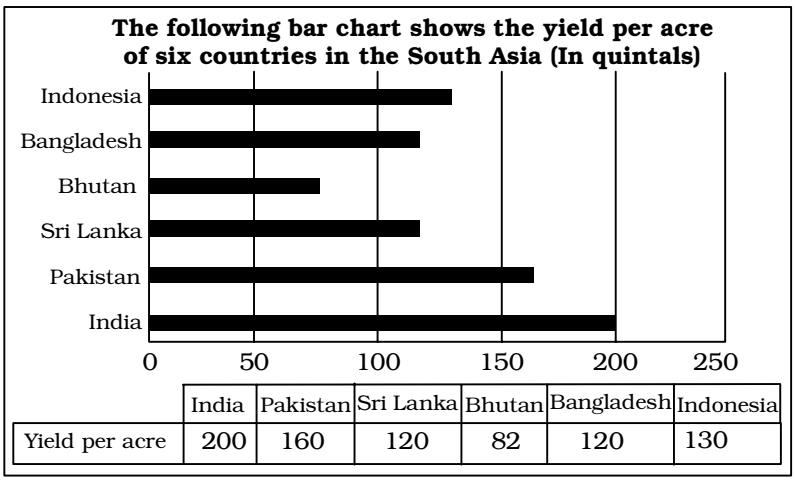
(1) $33\frac{1}{3}\%$ (2) $82\frac{6}{17}\%$
(3) 75% (4) 78%

32. What was the number of third divisions in 2006 ?
(1) 60 (2) 140
(3) 59 (4) 120

33. In which year, did the college have the best result for B. Com ?
(1) 2007 and 2008
(2) 2008
(3) 2007
(4) 2006

Directions (34–36) : Study the following bar graph carefully to answer the questions.

(SSC CGL Tier-I (CBE) Exam. 27.08.2016) (IInd Sitting)



	India	Pakistan	Sri Lanka	Bhutan	Bangladesh	Indonesia
Yield per acre	200	160	120	82	120	130

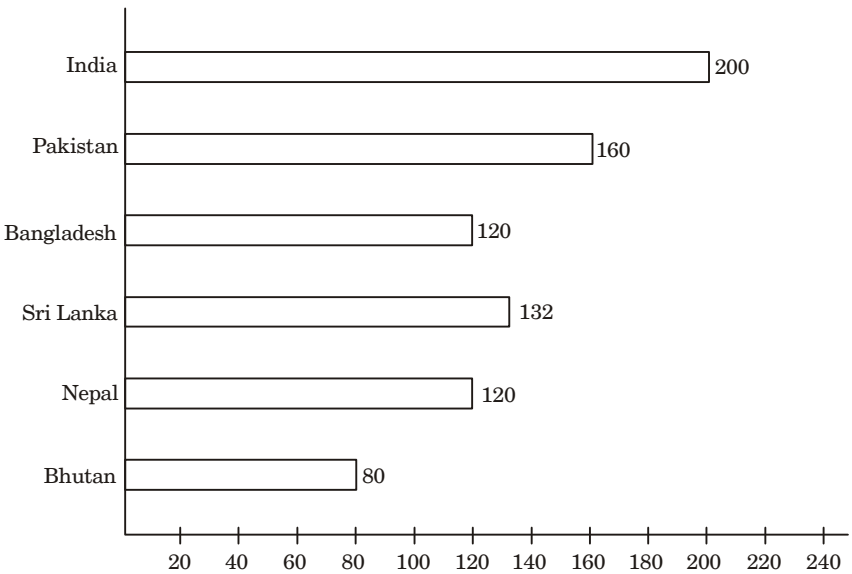
34. The yield per acre of India is what percent more than that of Pakistan?
(1) 25% (2) 50%
(3) 75% (4) 100%

35. If the yield per acre is arranged in ascending order, then what is the difference between the yield per acre of first three countries and last three countries?
(1) 168 quintals
(2) 172 quintals
(3) 182 quintals
(4) 190 quintals

36. The yield per acre produced by Bangladesh is what percent of the total yield per acre produced by all countries?
(1) 14% (2) 13.5%
(3) 14.8% (4) 16%

Directions (37–40) : The bar graph given below shows the per acre yield (in kg) of different countries. Study the graph carefully and answer the questions.

(SSC CGL Tier-I (CBE) Exam. 02.09.2016) (Ist Sitting)



37. The average yield of the given countries is
(1) $132\frac{1}{3}$ kg (2) $133\frac{1}{3}$ kg
(3) $134\frac{1}{3}$ kg (4) $135\frac{1}{3}$ kg

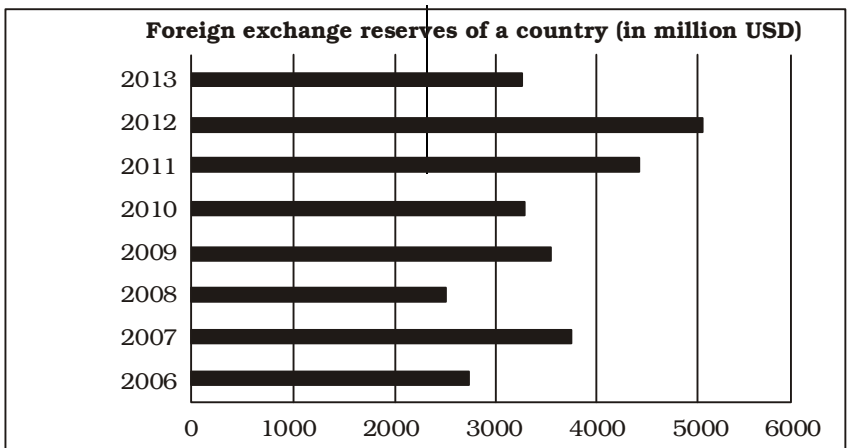
38. By how much percent is India's per acre yield more than that of Pakistan's?
(1) 20% (2) 25%
(3) $33\frac{1}{3}\%$ (4) 35%

39. Sri Lanka's yield (approximately) is what percent of total yield of all the countries?
(1) 17.8%
(2) 16.2%
(3) 18.2%
(4) 15.4%

40. Writing the yields of all countries in ascending order, the difference between the sum of yields of first three countries to that of last three countries is
(1) 200 kg.
(2) 212 kg.
(3) 172 kg.
(4) 162 kg.

Directions (41–43) : Study the following bar–diagram carefully and answer the questions.

(SSC CGL Tier-I (CBE) Exam. 02.09.2016) (IInd Sitting)



	2006	2007	2008	2009	2010	2011	2012	2013
Foreign exchange reserves	2640	3720	2520	3360	3120	4320	5040	3120

41. The foreign exchange reserve in 2012 was how many times that in 2009?
(1) 0.7 (2) 1.2
(3) 1.4 (4) 1.5

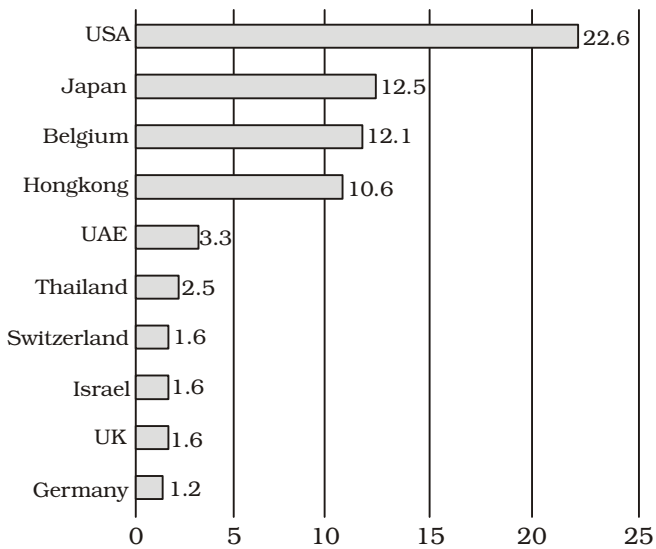
42. What was the percentage increase in the foreign reserves in 2012 over 2008?
(1) 100 (2) 150
(3) 200 (4) 620

43. The ratio of the number of years, in which the foreign exchange reserves are above the average reserves, to those in which reserves are below the average reserves, is
(1) 2 : 6 (2) 3 : 4
(3) 3 : 5 (4) 1 : 1

Directions (44–47) : Study the bar diagram carefully and answer the following questions.

(SSC CGL Tier-I (CBE) Exam. 02.09.2016) (IInd Sitting)

Export (in Billion Rupees) of gems and jewellery in the year 19911992 is given.



44. The ratio of the sum of the exports to the bottom six countries to the total exports to all the given countries in 1991 – 1992 is approximately :
(1) $\frac{1}{6}$ (2) $\frac{1}{5}$
(3) $\frac{1}{8}$ (4) $\frac{2}{9}$

45. The country to which twice the export is nearly equal to the average exports in 1991–92 is
(1) U.K (2) Thailand
(3) Israel (4) UAE

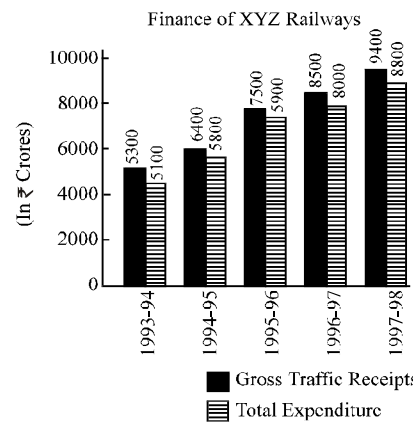
46. The ratio of the total exports to Japan, Belgium and Hongkong to the export to rest of the countries in 1991–92 is nearly :
(1) 35 : 34 (2) 35 : 69
(3) 69 : 35 (4) 35 : 35

47. The export to Hongkong is approximately how many times the exports to Germany ?
(1) 8 (2) 9
(3) 10 (4) 11

TYPE-V

Directions (1-5) : The following questions are based on the bar graph. Read the graph and answer the questions.

(SSC CGL Prelim Exam. 04.07.1999 (First Sitting)



1. What is the percentage increase in the gross traffic receipts in 1995-96 as compared to 1993-94?
(1) 33.9% (2) 41.5%
(3) 20.7% (4) 17%

2. If profit ≈ gross traffic receipts—total expenditure, then in 1996-97, what percentage of gross traffic receipts is the profit made?
(1) 5.9% (2) 6.4%
(3) 7.2% (4) 8%

3. In which year was the profit as a percentage of gross traffic receipts the highest?
(1) 1997-98 (2) 1996-97
(3) 1995-96 (4) 1994-95

4. In order to make a profit of 10%. What should have been the gross traffic receipts (in ₹ crores) in 1994-95, total expenditure remaining the same?

(1) 5,667 (2) 5,876

(3) 6,444 (4) 7,667

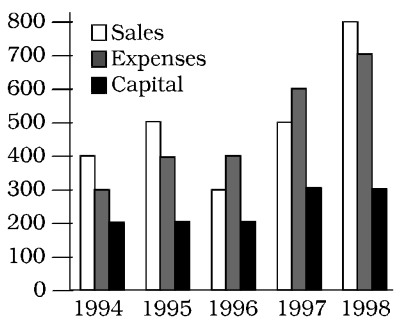
5. By what amount (in ₹ crores) has the expenditure increased over the period 1993-94 to 1997-98?

(1) 4,100 (2) 3,900

(3) 3,850 (4) 3,700

Directions (6-10) : The following graph gives Sales, Expense and Capital of a company for a period of five years 1994 to 1998. Read the graph and answer the following questions.

(SSC CGL Prelim Exam. 04.07.1999 (Second Sitting)



Profit = Sales – Expense

6. What has been the simple average growth rate per annum of expense between 1994 and 1998 ?

(1) 25% (2) $33\frac{1}{3}\%$

(3) 40% (4) 130%

7. In which year was the Sales to Expense ratio the lowest?

(1) 1994 (2) 1996

(3) 1997 (4) 1998

8. What was the average per annum increase in sales (in ₹ cr.) from 1994 to 1998 ?

(1) 50 (2) 60

(3) 80 (4) 100

9. In which year was the ratio of profit to capital the highest?

(1) 1998 (2) 1995

(3) 1996 (4) 1997

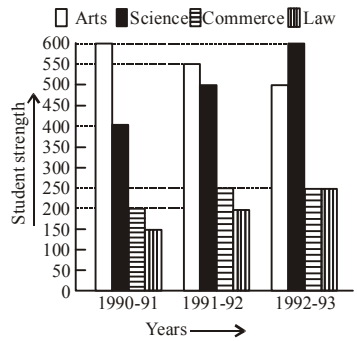
10. In which year was the ratio of sales to capital the lowest ?

(1) 1998 (2) 1997

(3) 1996 (4) 1995

Directions (11-14) : Given here is a multiple bar diagram depicting the changes in the students strength of a college in four faculties from 1990 – 91 to 1992 – 93. Study the diagram and answer the questions.

(SSC CGL Prelim Exam. 04.02.2007 (First Sitting)



11. In which faculty was there a regular decrease in students' strength?

(1) Arts (2) Science

(3) Commerce (4) Law

12. The percentage of students in Science faculty in 1990 – 91 was

(1) 26.9% (2) 27.8%

(3) 29.6% (4) 30.2%

13. The total students strength in 1991 – 92 was how many times that of Commerce students in the same year ?

(1) 3 (2) 4

(3) 5 (4) 6

14. What was the percent increase in Science students from the year 1990 – 91 to 1992 – 93 ?

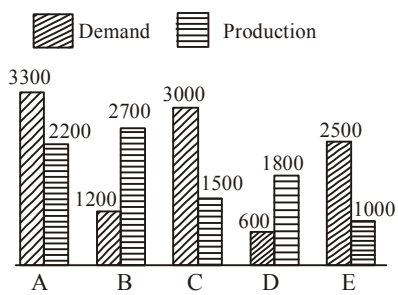
(1) 50% (2) $66\frac{2}{3}\%$

(3) 75% (4) 150%

Directions (15–18) : Study the following graph and answer the questions. Number on the top of a bar is the number of TVs.

(SSC CPO S.I. Exam. 06.09.2009)

Demand and Production of Colour T.Vs of five Companies for January 2006



15. What is the ratio of the companies having more demand than production to the companies having more production than demand ?

(1) 2 : 3 (2) 4 : 1

(3) 2 : 2 (4) 3 : 2

16. What is the difference between average demand and average production of the five companies taken together ?

(1) 1400 (2) 400

(3) 280 (4) 138

17. Demand of company D is approximately what per cent of demand of company E ?

(1) 12% (2) 20%

(3) 24% (4) 30%

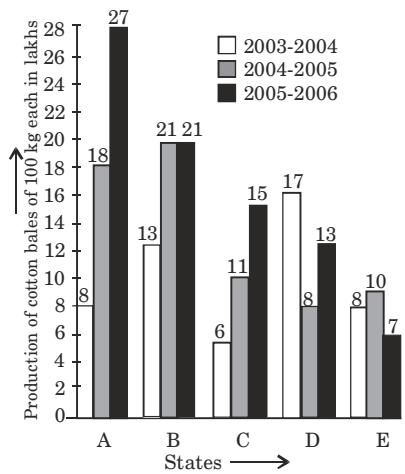
18. What is the ratio of average demand to average production of companies B and D ?

(1) 1 : 5 (2) 2 : 5

(3) 3 : 5 (4) 4 : 5

Directions (19–22) : The following graph shows the production of cotton bales of 100 kg each (in lakhs) by different states A, B, C, D and E over the years. Study the graph and answer the following Questions.

(SSC CGL Tier-1 Exam. 19.06.2011 (Second Sitting)



19. The production of State C in 2003-2004 is how many times its production in 2005-2006 ?

(1) 2.5 (2) 1.85

(3) 1.5 (4) 0.4

20. In which State(s) is there a steady increase in the production of cotton during the given period ?

(1) A and B (2) B and D

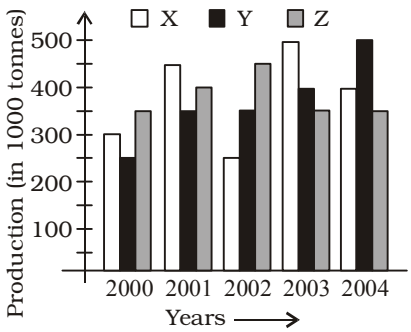
(3) A and C (4) D and E

21. How many kg of cotton was produced by State C during the given period ?
(1) 32,00,00,000 kg
(2) 42,50,00,000 kg
(3) 33,00,00,000 kg
(4) 35,00,00,000 kg

22. The number of States for which the production of cotton in 2005-2006 is less than or equal to the preceding year is
(1) 3 (2) 2
(3) 1
(4) There is no such State

Directions (23–26) : The following graph shows the production of wheat flour (in 1000 tonnes) by three companies *X*, *Y* and Z over the years. Study the graph and answer the questions.

(SSC CGL Tier-1 Exam. 26.06.2011 (Second Sitting)



23. What is the difference between the production of company Z in 2004 and company *Y* in 2000 (in thousand tonnes) ?
(1) 100 (2) 200
(3) 20 (4) 2

24. What is the ratio of the average production of company *X* in the period 2002-2004 to the average production of company *Y* in the same period ?
(1) 1 : 1 (2) 15 :17
(3) 23 : 25 (4) 27 : 29

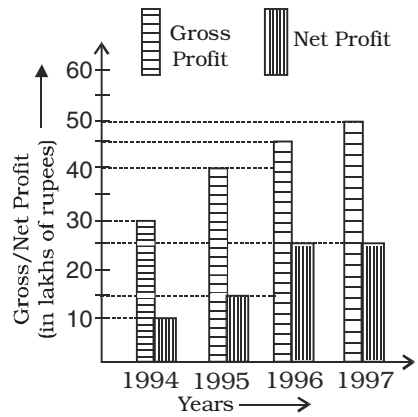
25. What is the percentage increase in the production of company *Y* from 2002 to 2003?
(1) $14\frac{2}{7}\%$ (2) $16\frac{6}{7}\%$
(3) 25% (4) 40%

26. The average production for five years was maximum for which company (s) ?
(1) X and Z both
(2) Y (3) Z
(4) X and Y both

Directions (27-31) : Study the following bar graph and answer the questions.

FCI Assistant Grade-III Exam. 25.02.2012 (Paper-I) North Zone (Ist Sitting)

Gross Profit and Net Profit of a company (in lakhs of rupees) for the years 1994-1997:



27. The year in which the gross profit is double the net profit
(1) 1997 (2) 1995
(3) 1996 (4) 1994

28. The percentage of net profit of 1995 as compared to the gross profit in that year is
(1) 25.5% (2) 35.5%
(3) 37.5% (4) 42.5%

29. The difference of average gross profit and average net profit calculated for four years is
(1) ₹ 18.75 lakhs
(2) ₹ 19.75 lakhs
(3) ₹ 20.5 lakhs
(4) ₹ 22.5 lakhs

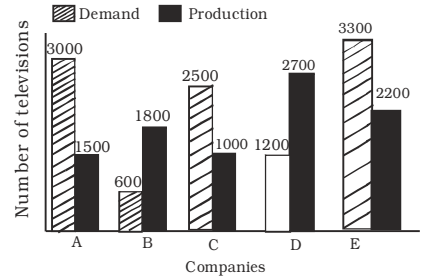
30. The ratio of gross profit to net profit in a year was greatest in the year
(1) 1994 (2) 1995
(3) 1996 (4) 1997

31. For the entire four years as shown, the ratio of total gross profit to total net profit is
(1) 13 : 4 (2) 11 : 6
(3) 11 : 5 (4) 9 : 4

Directions (32-35) : The bar graph, given here, shows the demand and production of colour televisions of five companies for Diwali season in the year 2009. Study the graph carefully and answer the questions based on the graph.

(SSC CHSL DEO & LDC Exam. 28.11.2010 (Ist Sitting)

Demand and Production of Colour Televisions of Five Companies.



32. The ratio of the demand and production of colour televisions of company E is :
(1) 3 : 2 (2) 2 : 3
(3) 2 : 1 (4) 1 : 2

33. The demand of colour televisions of company B is appoximately what per cent of that of company C ?
(1) 60% (2) 25%
(3) 24% (4) 6%

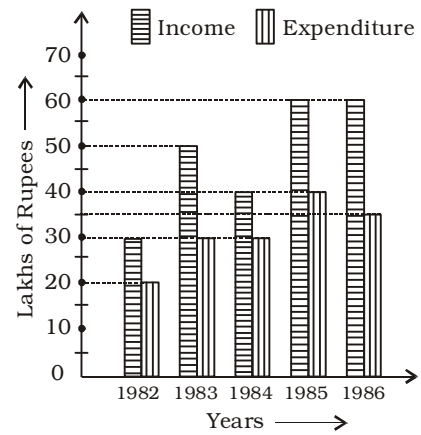
34. The production of colour televisions of company D is how many times that of company A ?
(1) 1.9 (2) 1.8
(3) 1.5 (4) 2.3

35. The ratio of companies having more demand than production of colour televisions to those having more production than demand is :
(1) 2 : 3 (2) 4 : 1
(3) 1 :4 (4) 3 : 2

Directions (36-40) : Read the graph and answer the following questions.

(SSC CHSL DEO & LDC Exam. 04.12.2011 (Ist Sitting (East Zone)

Income and Expenditure of a company over the years (in lakhs of rupees)



36. What is the difference in profit between 1983 and 1984 (in lakhs of rupees) ?
(1) No profit (2) 5
(3) 10 (4) 15

37. The number of years in which the income is more than the average income of the given years is
(1) One (2) Two
(3) Three (4) Four

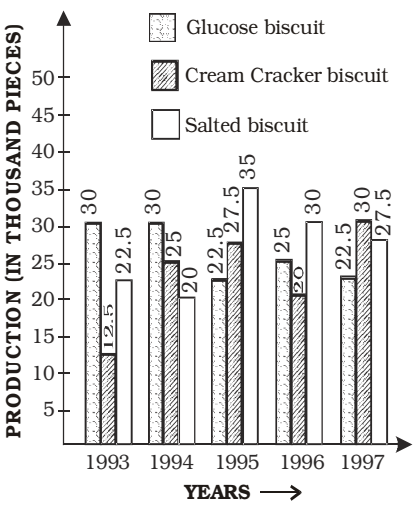
38. The ratio of the average income of all the years to the average profit is
(1) 24 : 13 (2) 48 : 17
(3) 12 : 7 (4) 6 : 5

39. Percentage increase in profit in 1986 over 1982 is
(1) 150% (2) 120%
(3) 100% (4) 80%

40. The total income exceeds the total expenditure over the years 1982 to 1986 by
(1) 85 lakhs (2) 105 lakhs
(3) 115 lakhs (4) 120 lakhs

Directions (41-45) : The bar diagram given below shows the productions (in the unit of thousand pieces) of three types of biscuits by a company in the five consecutive years. Study the diagram and answer the following questions.

(SSC CHSL DEO & LDC Exam. 11.12.2011 (Ist Sitting (Delhi Zone)



41. The percentage drop in the number of glucose biscuits manufactured from 1994 to 1995 is
(1) 10% (2) 15%
(3) 25% (4) 20%

42. The difference (in the unit of thousand pieces) between the total number of cream cracker biscuits manufactured in the years 1993, 1995 and 1997 and the total number of the biscuits of same type in the years 1994 and 1996 is
(1) 15 (2) 25
(3) 30 (4) 20

43. Total production of all the three types of biscuits was the least in the year
(1) 1993 (2) 1997
(3) 1996 (4) 1995

44. The production of all the three types of biscuits was maximum in the year
(1) 1995 (2) 1994
(3) 1996 (4) 1993

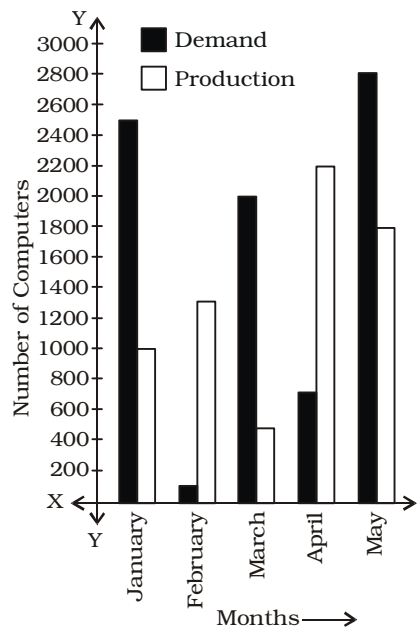
45. The ratio of production of glucose biscuits and total production of biscuits in that year was maximum in
(1) 1994 (2) 1993
(3) 1996 (4) 1997

Directions (46–50) : Read the graph and answer the following questions.

(SSC CHSL DEO & LDC Exam. 11.12.2011 (Ist Sitting (East Zone)

Demand and production of computers of a company for five months of 2007.

(Scale : 1 unit = 1 cm)



46. Which month has least demand of computers relative to production ?
(1) January (2) April
(3) May (4) February

47. What per cent of the demand of computers for the month of March is the demand of computers for the month of February ?
(1) 5% (2) 10%
(3) 7.5% (4) 15%

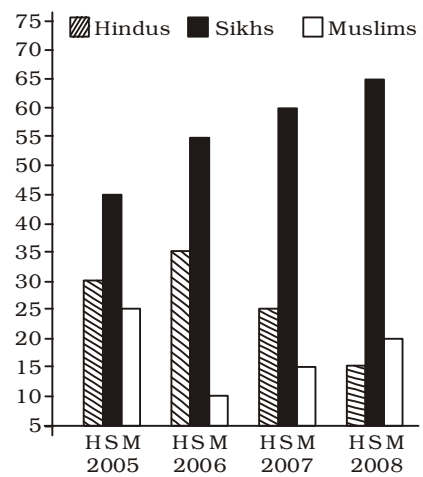
48. The production of computers in April is approximately how many times that of production in January ?
(1) 2.2 (2) 1.8
(3) 1.4 (4) 2.6

49. What is the difference between average demand and average production of computers of the five months taken together ?
(1) 400 (2) 700
(3) 540 (4) 260

50. What is the ratio of the month having more demand than production to those having more production than demand ?
(1) 4 : 1 (2) 2 : 3
(3) 3 : 2 (4) 1 : 4

Directions (51–54) : The following diagram shows the percentage of population of Hindus, Sikhs and Muslims with respect to total population in a town during 2005 to 2008. Study the diagram and answer the questions :

(SSC Constable (GD) & Rifleman (GD) Exam. 22.04.2012 (IInd Sitting)



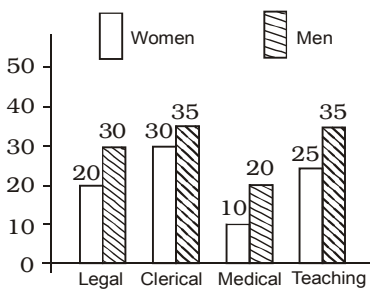
51. If the total population in 2007 was 80 lakh, then the number of Hindus in 2007 was (in lakh)
(1) 25 (2) 16
(3) 18 (4) 20

52. Percentage decrease in Hindu population from 2005 to 2008 is
(1) 50% (2) 40%
(3) 25% (4) 15%

53. Difference of percentage of population of Hindus in 2005 and 2008 is
(1) 20% (2) 15%
(3) 25% (4) 30%

54. If the total number of Hindus in 2008 was 12 lakh, the number of Muslims in 2008 was (in lakh)
(1) 18 (2) 12
(3) 24 (4) 16

55. Given below is a graph which shows the different occupations of men and women. The occupation that has larger proportion of women compared to the other three jobs is

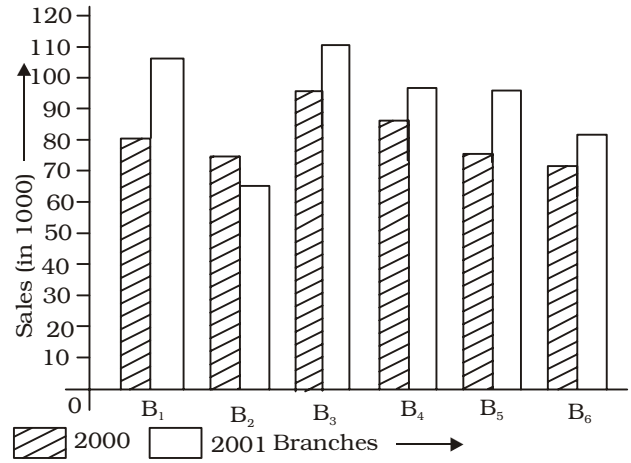


(1) Clerical (2) Teaching
(3) Medical (4) Legal

(SSC Multi-Tasking Staff Exam. 17.03.2013, Ist Sitting)

Directions (56–59) : Bar-chart showing the Sales of Books (in 1000) from six-branches B_1 B_2, B_3, B_4, B_5 and B_6 of a Publishing Company in 2000 and 2001 is given below. Study the chart and answer the questions.

(SSC FCI Assistant Grade-III Main Exam. 07.04.2013)



56. Total sales of branch B_6 for both the years is what percent of the total sales of branch B_3 for both the years?
(1) 71.11% (2) 73.17%
(3) 68.54% (4) 77.26%

57. What is the ratio of the total sales of branch B_2 for both the years to the totai sales of branch B_4 for both years ?
(1) 2 : 3 (2) 3 : 5
(3) 5 : 7 (4) 7 : 9

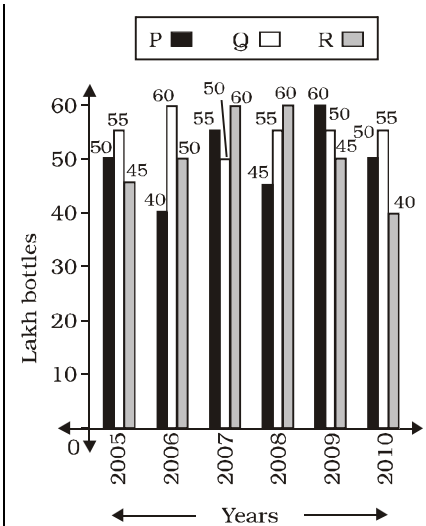
58. What percent of the average sales of branches B_1, B_2 and B_3 in 2001 is the average sales of branches B_1, B_3 and B_6 in 2000 ?
(1) 87.5% (2) 75%
(3) 77.5% (4) 85%

59. What is the average sale of books from all the branches for the year 2000?
(1) 70 (2) 80
(3) 70.5 (4) 80.5

Directions (60-64) : A health drink company prepares the drink of three different flavours P, Q, R. The production of three flavours over a period of six years has been expressed on bar graph provided below. Study the graph and answer the questions.

(SSC Graduate Level Tier-I Exam. 21.04.2013) & (SSC CAPFs SI & CISF ASI Exam. 23.06.2013)

(Production of 3 different flavours of health drinks of a company in 6 years (in Lakh) bottles)



60. In which of the following years the percentage of rise or fall in production from the previous year is maximum for the flavour of Q?
(1) 2007 (2) 2009
(3) 2010 (4) 2006

61. The percentage of the total production of flavour R in 2007 and 2008 with respect to the production of flavour P in 2005 and 2006 is :
(1) 102.25% (2) 115.35%
(3) 133.33% (4) 97.67%

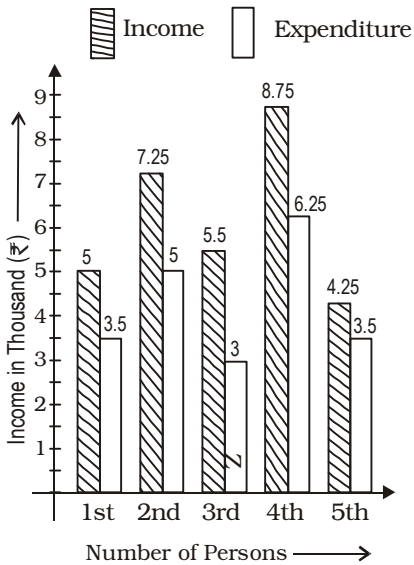
62. The average annual production of which flavour was maximum in the given period ?
(1) P and Q both
(2) Q only
(3) P and R both
(4) P only

63. What was the approximate decline in the production of flavour R in 2010 as compared to the production of 2008 in percentage ?
(1) 43.33% (2) 33.33%
(3) 30.33% (4) 53.33%

64. What is the difference between the average production of flavour Q in 2008, 2009 and 2010 from that of flavour P in 2005, 2006 and 2007 (in lakh bottles) ?
(1) 50 (2) 0.5
(3) 5.5 (4) 5

Directions (65–66) : In the following questions, a graphical representation of income and expenditure of 5 persons during the month of January has been given. Read the graph and answer the questions.

(SSC Constable (GD) Exam. 12.05.2013)

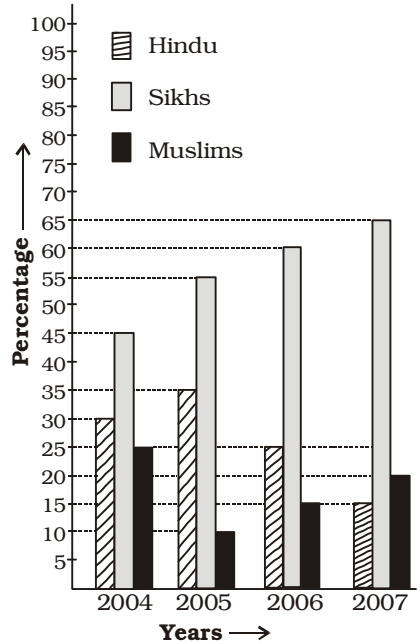


65. What is the average income of five persons per month ?
(1) ₹ 5775 (2) ₹ 6000
(3) ₹ 6150 (4) ₹ 6250

66. What is the income range of the persons ?
(1) ₹ 3000 (2) ₹ 3250
(3) ₹ 3750 (4) ₹ 4500

Directions (67–69) : The following bar diagram shows the percentage of Hindus, Sikhs and Muslims in a state during the years from 2004 to 2007. Examine the bar diagram and answer the following questions.

(SSC Graduate Level Tier-I Exam. 19.05.2013 Ist Sitting)



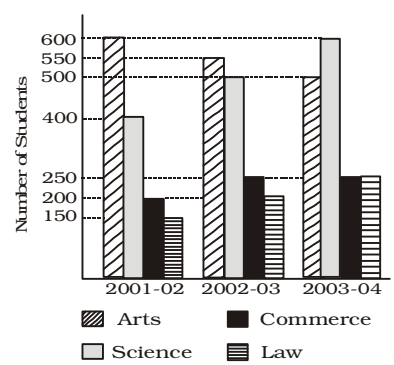
67. The ratio between the Hindu and Sikh population in 2004 was
(1) 3 : 5 (2) 1 : 2
(3) 2 : 3 (4) 3 : 4

68. If the total population of the state in 2004 was 5 lakhs, then the Hindu and Muslim population in that year was
(1) 200000 (2) 275000
(3) 250000 (4) 225000

69. If the total population of the state in 2005 was 5 million, then the Hindu population was [1 million = 10,00,000]
(1) 2000000 (2) 1250000
(3) 1500000 (4) 1750000

Directions (70–72) : Shown below is the multiple bar diagram depicting the changes in the roll strength of a college in four faculties from 2001-02 to 2003-04.

(SSC Graduate Level Tier-I Exam. 19.05.2013 Ist Sitting)



Study the above bar diagram and answer the questions.

70. The percentage of students in Science faculty in 2001- 2002 is
(1) 30.2% (2) 26.9%
(3) 27.8% (4) 29.6%

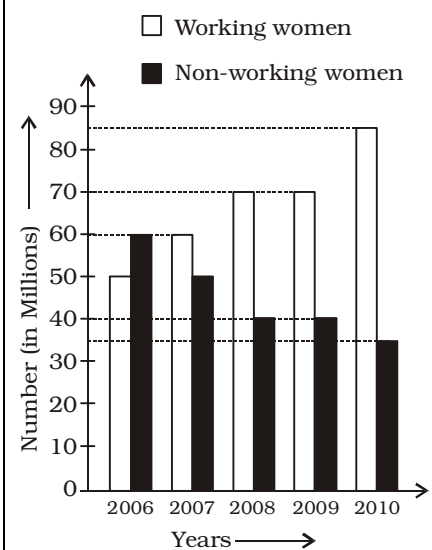
71. The percentage of students in Law faculty in 2003-04 is
(1) 14.8% (2) 18.5%
(3) 15.6% (4) 16.7%

72. Percentage of increase in Science students in 2003-04 over 2001-2002 is
(1) 75% (2) 50%
(3) 150% (4) $66\frac{2}{3}\%$

Directions (73-77) : Study the following multiple bar graph carefully and answer the questions

(SSC CHSL DEO & LDC Exam. 28.10.2012, Ist Sitting)

Survey of the number of working and non-working women over the years.



73. The number of non-working women in the year 2010 was approximately (correct up to an integer) what per cent of total number of working as well as non-working women in that year ?
(1) 23% (2) 25%
(3) 29% (4) 31%

74. What is the ratio of numbers of working women to the non-working women in the year 2009 ?
(1) 7 : 4 (2) 4 : 7
(3) 2 : 3 (4) 3 : 2

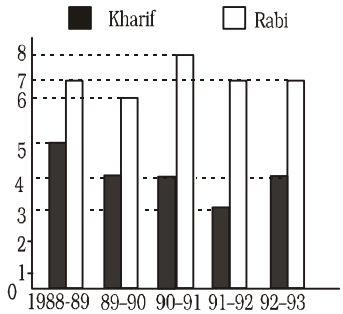
75. What is the ratio of the number of women working in the year 2006 to the number of women working in the year 2010 ?
(1) 5 : 17 (2) 17 : 5
(3) 17 : 10 (4) 10 : 17

76. In which year was the difference between the number of working and non-working women the highest?
(1) 2007 (2) 2008
(3) 2009 (4) 2010

77. In which year or years, the difference between the number of working and non-working women the lowest ?
(1) 2006 and 2007
(2) 2007 and 2008
(3) Only 2006
(4) Only 2007

78. The average Kharif production of the given years is

Production of pulses in Rabi and Kharif season (in million tonnes)

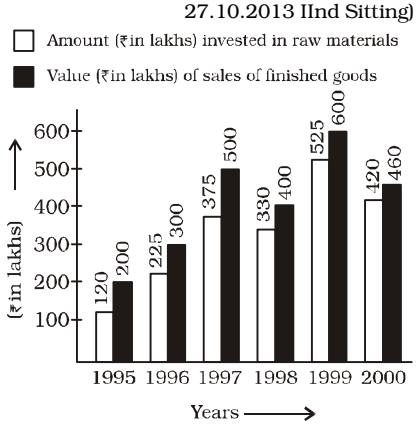


(1) 4 million tonnes
(2) 5 million tonnes
(3) 4.5 million tonnes
(4) 5.5 million tonnes

(SSC Graduate Level Tier-II Exam. 29.09.2013

Directions (79-80) : Study the following graph and answer the given questions

(SSC CHSL DEO & LDC Exam. 27.10.2013 IInd Sitting)

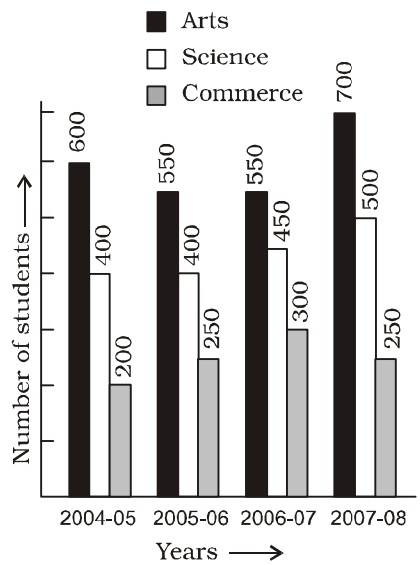


79. In which year, there has been a maximum percentage increase in the amount invested in raw materials as compared to the previous year ?
(1) 1996 (2) 1997
(3) 1998 (4) 1999

80. What was the difference between the average amount invested in raw materials during the given period and the average value of sales of finished goods during this period ?
(1) ₹ 62.5 lakhs (2) ₹ 68.5 lakhs
(3) ₹ 71.5 lakhs (4) ₹ 77.5 lakhs

Directions (81-82) : Student's strength of a college in Arts, Science and Commerce from 2004-05 to 2007-08 sessions are shown in the following bar graph. Study the graph and answer the questions.

(SSC CHSL DEO & LDC Exam. 10.11.2013, Ist Sitting)

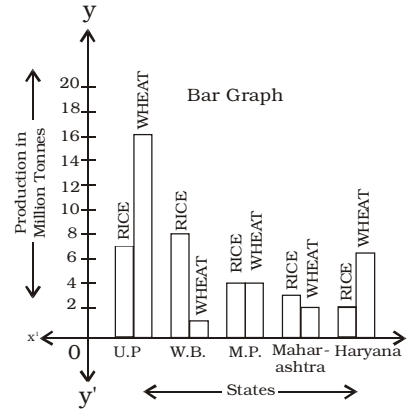


81. The ratio of average number of students in Arts to the average number of students in Commerce is
(1) 12 : 5 (2) 10 : 7
(3) 7 : 4 (4) 48 : 35

82. The % increase in Science students in 2007-08 over 2006-07 was
(1) 10.1% (2) 11.1%
(3) 16.7% (4) 18.2%

Directions (83-87) : Read the bar graph given below and answer the questions.

FCI Assistant Grade-III Exam. 05.02.2012 (Paper-I) East Zone (IInd Sitting)



83. Which of the above states is least producer of wheat ?
(1) Maharashtra (2) W.B.
(3) M.P. (4) Haryana

84. Which of the above states is the largest producer of rice ?
(1) U.P. (2) W.B.
(3) M.P. (4) Haryana

85. What fraction of rice is produced by Haryana of the total production of rice by all the above States?
(1) $\frac{1}{8}$ (2) $\frac{1}{12}$
(3) $\frac{1}{4}$ (4) $\frac{1}{6}$

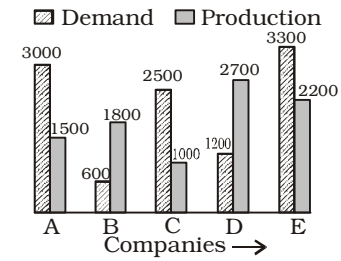
86. In which of the above states the total production of rice and wheat is the least ?
(1) W.B. (2) M.P.
(3) Maharashtra (4) Haryana

87. Which of the above States is the largest producer of wheat ?
(1) M.P. (2) Haryana
(3) Maharashtra (4) U.P.

Directions (88–92) : Study the graph and answer the following questions.

(SSC CHSL DEO & LDC Exam. 11.12.2011 (IInd Sitting (East Zone)

Demand and Production of Colour T.V. sets of five companies A, B, C, D and E for October 2006



88. What percent of the demand of company C is that of the company B ?
(1) 14% (2) 20%
(3) 24% (4) 26%

89. What is the difference between average demand and average production of the companies taken together ?
(1) 1400 (2) 400
(3) 280 (4) 138

90. The average production of the companies A, B, C and that of the companies D, E are in the ratio :
(1) 85 : 147 (2) 86 : 147
(3) 86 : 149 (4) 87 : 149

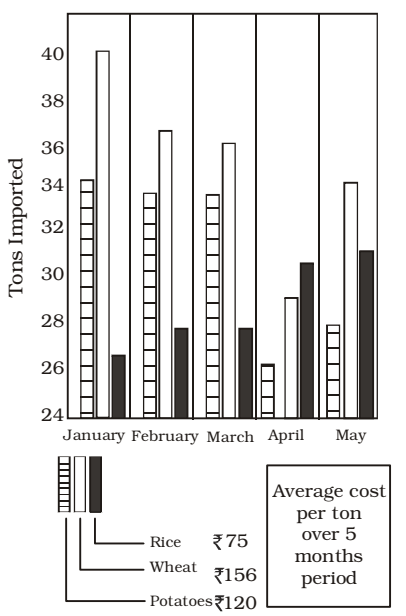
91. What is the ratio of companies having more demand than production to those having more production than demand ?
(1) 2 : 3 (2) 4 : 1
(3) 1:4 (4) 3 : 2

92. How many times of the production of company A is that of the company D ?
(1) 1.4 (2) 1.5
(3) 1.8 (4) 2.5

Directions (93–94) : The following Bar Diagram depicts figures for some agricultural imports from January-May, 2008. Answer (as closely as possible) the questions using the date provided here

(SSC Multi-Tasking Staff Exam. 24.03.2013, Ist Sitting)

Agricultural Imports - January to May

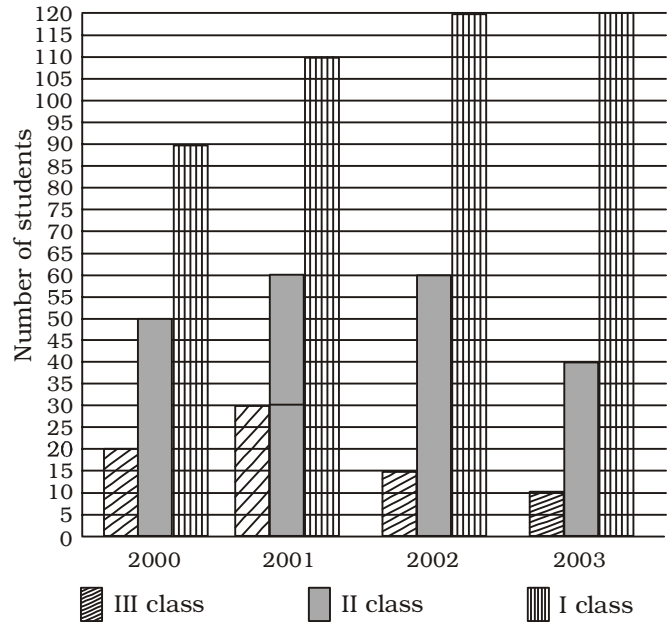


93. What is the average cost of potato import in February and March?
(1) ₹ 3,960 (2) ₹ 5,960
(3) ₹ 1,280 (4) ₹ 4,440

94. What was the total cost (in ₹) of wheat import in March?
(1) ₹ 3,212 (2) ₹ 5,616
(3) ₹ 7,042 (4) ₹ 2,224

Directions (95-98) : The graph shows the result of 10th class students of a school for 4 years. Study the graph and answer the questions :

(SSC CGL Tier-I Re-Exam. (2013) 27.04.2014)



95. The number of students appeared for the 10th class exam in the year 2002 is
(1) 180 (2) 195
(3) 200 (4) 120

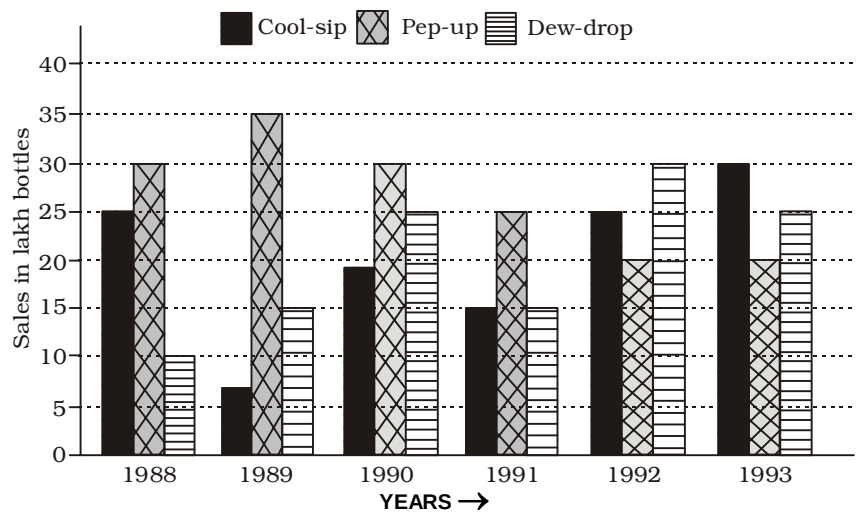
96. The percentage increase of first class in the year 2003 over the year 2002 is approximately
(1) 12% (2) 0%
(3) 10% (4) 9%

97. The year in which the maximum number of students appeared for the 10th class exam is
(1) 2001 (2) 2002
(3) 2003 (4) 2000

98. The ratio of students who scored second class to the total students appeared in the year 2000 is
(1) 3 : 16 (2) 4 : 17
(3) 5 : 16 (4) 11 : 16

Directions (99-104) : Study the graph and answer the questions.

(SSC CGL Tier-I Exam. 19.10.2014) (Ist Sitting)



99. In which year the sale of cool-sip is minimum ?
(1) 1990 (2) 1992
(3) 1993 (4) None of the above

100. In case of which soft drink was the average annual sale maximum during the period 1988-1993 ?
(1) Pep-up only
(2) Pep-up and Dew-drop
(3) Cool-sip only
(4) Cool-sip and Pep-up

101. What was the approximate percent drop in the sale of Pep-up in 1990 over its sale in 1989 ?
(1) 5 (2) 14
(3) 12 (4) 20

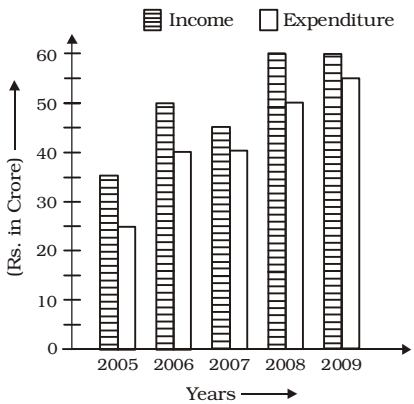
102. What was the approximate percent increase in sales of Cool-sip in 1990 over its sales in 1989 ?
(1) 100 (2) 50
(3) 171 (4) 150

103. In which year sale of Dew-drop is maximum ?
(1) 1988 (2) 1992
(3) 1989 (4) 1993

104. In case of which soft drink was the average annual sale minimum during the period 1988-1993 ?
(1) Pep-up only
(2) Cool-sip only
(3) Dew-drop only
(4) Dew-drop and Cool-sip

Directions (105-108) : Study the following graph which shows income and expenditure of a company over the years and answer the questions.

(SSC CGL Tier-I Exam. 19.10.2014)



105. The difference in profit (in Rs. crores) of the company during 2007 and 2008 is
(1) 5 (2) 10
(3) 15 (4) 20

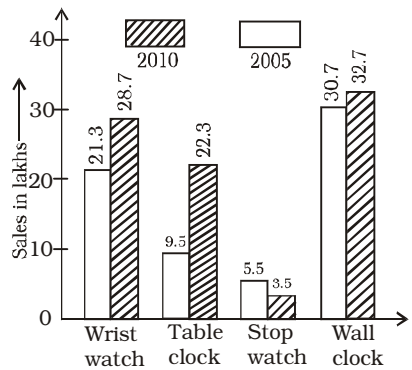
106. In how many years was the expenditure of the company more than the average expenditure of the given years ?
(1) 4 (2) 3
(3) 2 (4) 1

107. The percentage increase in income of the company from 2007 to 2008 is
(1) 30 (2) 25
(3) $33\frac{1}{3}$ (4) $42\frac{6}{7}$

108. Ratio of total income to total expenditure of the company over the years is
(1) 21 : 25 (2) 25 : 21
(3) 26 : 21 (4) 25 : 22

Directions (109–113) : A watch company produces four different products. The sale of these products in lakhs during 2005 and 2010 are shown in the following bar diagram. Study the graph and answer the questions.

(SSC CGL Tier-II Exam. 21.09.2014)



109. The sales in percentage of wrist watch in 2010 more than the sales of table clock in 2010 was nearly by
(1) 26.7% (2) 27.7%
(3) 28.7% (4) 21.7%

110. The ratio of sales of stop watch in 2010 to the sale of table clock in 2005 is
(1) 6 : 19 (2) 7 : 6
(3) 19 : 6 (4) 7 : 19

111. The sales of table clock in 2005 was less than the sales of wall clock in 2005 is nearly by
(1) 70.05% (2) 69.05%
(3) 68.05% (4) 62.05%

112. During the period 2005-2010 the minimum rate of increase in sales is in the product of
(1) Wrist watch (2) Table clock
(3) Stop watch (4) Wall clock

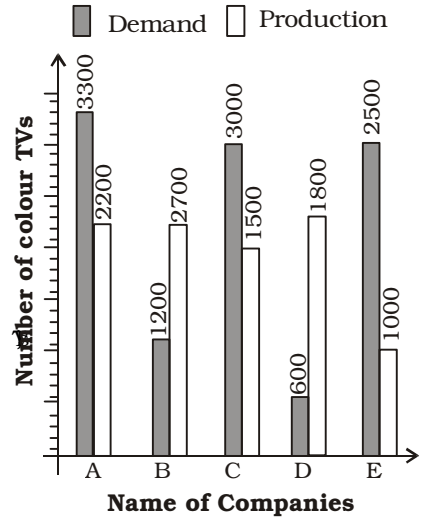
113. The sales have increased by nearly 135% from 2005 to 2010 in the product of
(1) Table clock (2) Wrist watch
(3) Stop watch (4) Wall clock

Directions (114-118) : Study the bar diagram and answer the following questions.

(SSC CAPFs SI, CISF ASI & Delhi Police SI Exam. 22.06.2014)

Demand and Production of colour TVs of five companies A, B, C, D and E.

(Number on the top of a bar is the number of colour



114. The ratio of the number of companies having more demand than production to the companies having more production than demand, is
(1) 2 : 3 (2) 4 : 1
(3) 1 : 1 (4) 3 : 2

115. The difference between average demand and average production of the five companies taken together is
(1) 1400 (2) 400
(3) 280 (4) 138

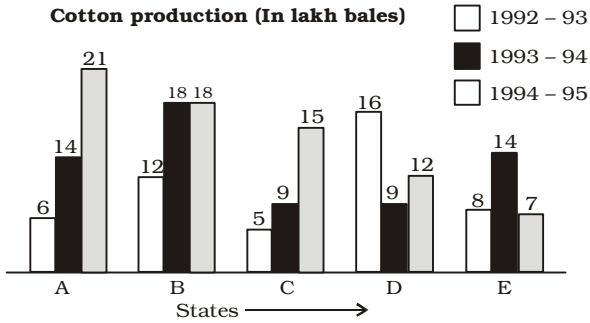
116. The percentage of the demand of company D as compared to the demand of company E is
(1) 12 (2) 24
(3) 20 (4) 30

117. The ratio of average demand to average production of companies B and D is
(1) 1 : 5 (2) 2 : 5
(3) 3 : 5 (4) 4 : 5

118. The ratio of demand and production is maximum in factory
(1) E (2) C
(3) A (4) D

Directions (119-122) : Study the graph carefully and answer the following questions.

(SSC CHSL DEO & LDC Exam. 02.11.2014) (IInd Sitting)



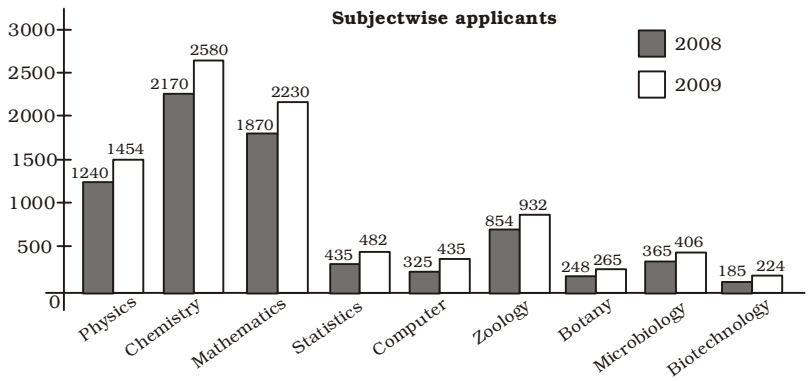
119. The production of State D in 1993–94 is how many times its production in 1994–95 ?
(1) 1.33 (2) 0.75
(3) 0.56 (4) 1.77

120. Which of the following statement is false ?
(1) State A and E showed the same production in 1993–94.
(2) There was no improvement in the production of cotton in state B during 1994–95.
(3) State A has produced maximum cotton during the given period.
(4) Production of state C and D together is equal to that of state B during 1993–94.

121. How many states showing below average production in 1992–93 showed above average production in 1993–94 ?
(1) 4 (2) 2
(3) 3 (4) 1

122. What is the average production of the four states in the year 1994–95 taken together ?
(1) 12.3 (2) 14.6
(3) 15.6 (4) 16.3

Directions (123-127) : The subjectwise number of applicants for the year 2008 and 2009 in a college is given in the following chart. Study the graph and answer the questions. (SSC CHSL DEO & LDC Exam. 02.11.2014) (IInd Sitting)



123. The subject for which growing of demand is maximum is
(1) Chemistry
(2) Mathematics
(3) Computer
(4) Biotechnology

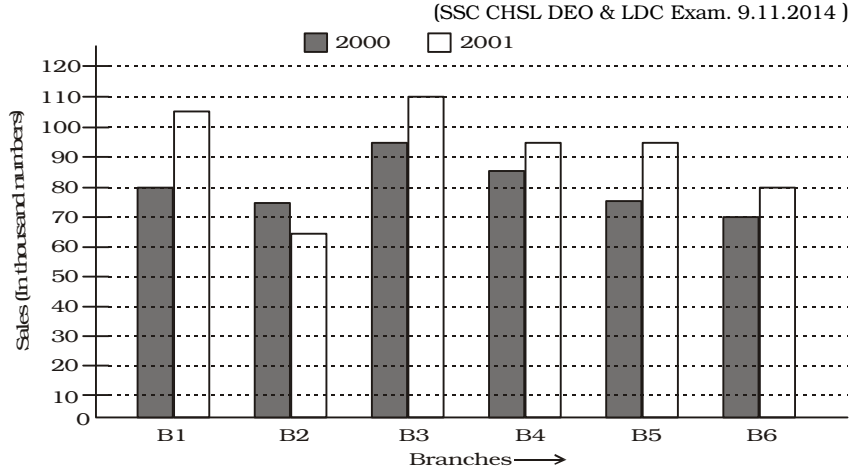
124. The subject for which growing of demand is minimum is
(1) Statistics
(2) Zoology
(3) Botany
(4) Microbiology

125. The number of Chemistry seeking applicants increased by
(1) 17.26 %
(2) 18.89 %
(3) 19.25 %
(4) 21.08 %

126. The number of Physics seeking applicants increased by
(1) 17.26 %
(2) 18.89 %
(3) 19.25 %
(4) 21.08 %

127. The number of Mathematics seeking applicants increased by
(1) 17.26 %
(2) 18.89 %
(3) 19.25 %
(4) 21.08 %

Directions (128 – 131) : Sales of Books (in thousand numbers) from Six Branches – B1, B2, B3, B4, B5 and B6 of a publishing Company in 2000 and 2001. Study the graph and answer the questions.
(SSC CHSL DEO & LDC Exam. 9.11.2014)



128. Total sale of branches B1, B3 and B5 together for both the years (in thousand) is

(1) 250 (2) 310

(3) 435 (4) 560

129. Find the ratio of the total sales of branch B2 for both years to the total sales of branch B4 for both years.

(1) 2 : 3 (2) 3 : 5

(3) 4 : 5 (4) 7 : 9

130. The average sale of branches B1, B3 and B6 in 2000 is what percent of the average sale of branches B1, B2 and B3 in 2000 ?

(1) 87.5 (2) 75

(3) 77.5 (4) 82.5

131. Find the percentage increase in the sales of books of branch B3 in the year 2001 than the branch B2.

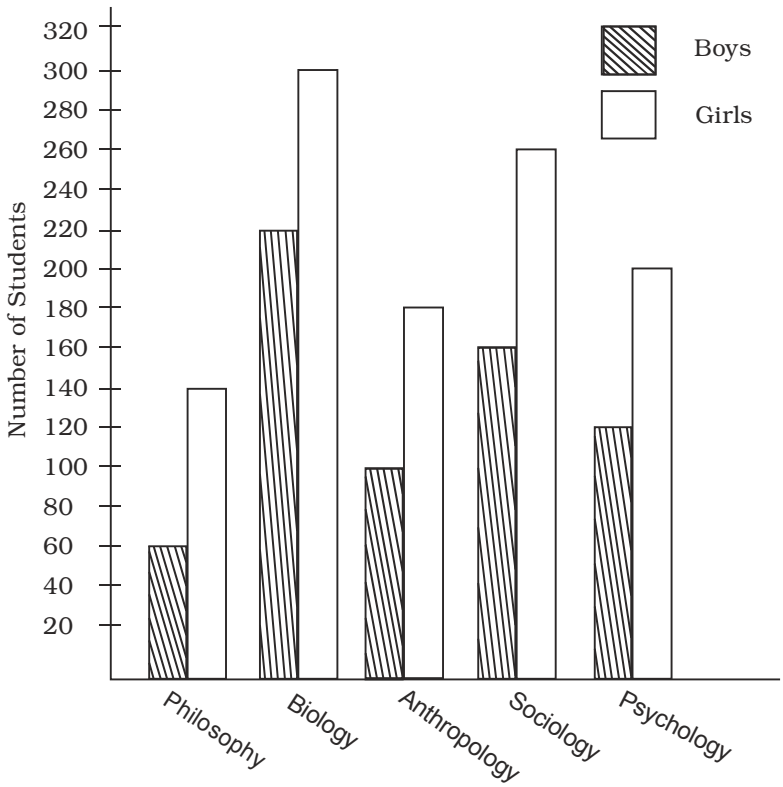
(1) 69.2 (2) 50.8

(3) 40.9 (4) 65.7

Directions (132 - 136) : Study the bar diagram and answer the questions.

(SSC CHSL DEO & LDC Exam. 16.11.2014)

Total number of boys and girls in five different departments of a college



132. The percentage of the girls from Biology Department compared to the total number of girls from all the other Departments together is

(1) $37\frac{1}{2}$ (2) 37

(3) $36\frac{1}{2}$ (4) $35\frac{1}{2}$

133. The difference between the total number of boys and the total number of girls from all the Departments together is

(1) 540 (2) 520

(3) 460 (4) 440

134. The average number of boys from all the departments together is

(1) 123 (2) 132

(3) 134 (4) 142

135. The percentage of the boys from Biology Department compared to the total number of boys from all the Departments together is

(1) $33\frac{1}{2}$ (2) 50

(3) $33\frac{1}{3}$ (4) 30

136. The respective ratio of number of girls from Philosophy Department to the number of girls from Psychology Department is

(1) 7 : 11 (2) 11 : 7

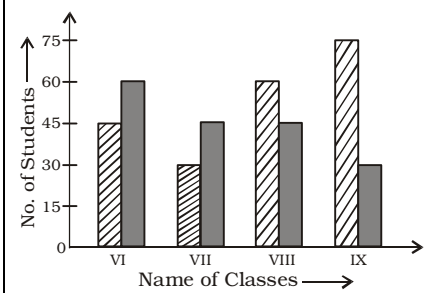
(3) 7 : 10 (4) 6 : 11

Directions (137 – 141) : Study the double bar graph given below and answer the questions.

(SSC CHSL DEO Exam. 02.11.2014 (Ist Sitting)

▨ : No. of students participating in the school exhibition in the year 2013

■ : No. of students participating in the cultural events of school in the year 2013 of a particular school



137. The class having maximum number of participants in exhibition is

(1) Class IX (2) Class VIII

(3) Class VII (4) Class VI

138. The average of the number of students participating in cultural events is

(1) 48.75 (2) 52.5

(3) 45 (4) 50

139. The average of the number of students participating in exhibition is

(1) 48.75 (2) 52.5

(3) 45 (4) 50

140. The ratio of the participants in exhibition of class IX with the total participants of class IX is

(1) 5 : 7 (2) 5 : 14

(3) 1 : 4 (4) 3 : 5

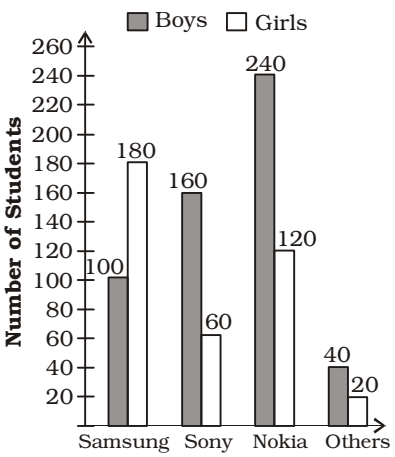
141. The percentage of students of class VIII participating in cultural event out of total participants of cultural event is

(1) 30% (2) 25%

(3) 35% (4) 40%

Directions (142-145) : The following bar chart represents the number of first year B. Com. students of St Xavier's College using different companies' smart phones. Study bar chart and answer the questions.

(SSC CAPFs SI, CISF ASI & Delhi Police SI Exam. 22.06.2014 TF No. 999 KP0)



Different Smart phone companies

The bar chart representing the number of students using different smart phones.

142. The ratio of the number of boys to the number of girls using the smart phones of Samsung and Sony together is

(1) 12 : 13 (2) 13 : 12
(3) 14 : 11 (4) 11 : 14

143. What percentage of boys are using the smart phones of Samsung ?

(1) 16.52% (2) 17.52%
(3) 18.52% (4) 15.52%

144. What percentage of girls are using the smart phones of Nokia ?

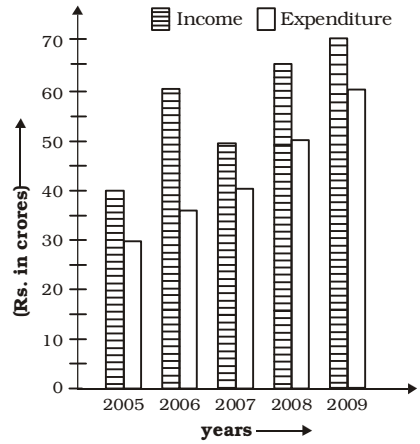
(1) 33.58% (2) 32.58%
(3) 30.58% (4) 31.58%

145. The difference between the total number of students using smart phones of Samsung combined together and the total number of students using smart phones of Sony taken together is

(1) 20 (2) 60
(3) 80 (4) 40

Directions (146–149) : Study the following graph which shows income and expenditure of a company over the years 2005 – 2009 and answer the questions.

(SSC CGL Tier-I Exam. 19.10.2014 TF No. 022 MH 3)



146. The difference in profit (Rs. in crores) of the company during 2006 and 2007 is

(1) 10 (2) 15
(3) 20 (4) 25

147. In how many years was the income of the company less than the average income of the given years ?

(1) 4 (2) 3
(3) 2 (4) 1

148. The percentage increase in expenditure of the company from 2007 to 2008 is

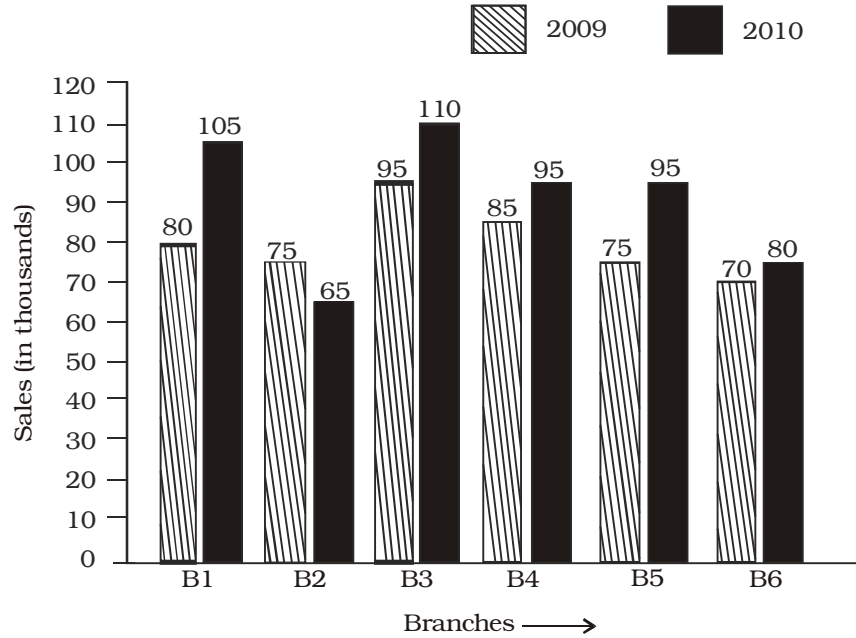
(1) 20 (2) 25
(3) 30 (4) 35

149. Profit of the company was maximum in the year

(1) 2009 (2) 2008
(3) 2006 (4) 2005

Directions (150 - 154) : In the following bar diagram sales of books (in thousand numbers) from six branches – B1, B2, B3, B4, B5 and B6 of a publishing company in 2009 and 2010 have been shown. Study the graph and answer the questions.

(SSC CHSL (10+2) DEO & LDC Exam. 16.11.2014, IInd Sitting (TF No. 545 QP 6)



150. The ratio of the total sales of branch B2 for both the years to the total sales of branch B4 for both the years is

(1) 7 : 9 (2) 2 : 3
(3) 4 : 5 (4) 3 : 5

151. Total sales of branch B6 for both the years is x per cent of the total sales of branch B3 for both the years. The value of x is

(1) 68.54% (2) 73.17%
(3) 71.11% (4) 75.55%

152. x% of the average sales of branches B1, B2 and B3 in 2010 is the average sales of branches B1, B3 and B6 in 2009. The value of x is

(1) 77.5% (2) 87.5%
(3) 82.5% (4) 75%

153. The average sales of all the branches for the year 2009 is

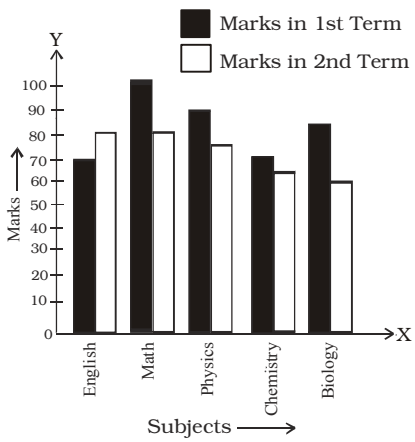
(1) 73 (2) 83
(3) 80 (4) 88

154. Total sales of branches B1, B3 and B5 together for both the years is

(1) 250 (2) 310
(3) 435 (4) 560

Directions (155 – 158) : Study the bar diagram and answer the given questions.

(SSC CGL Tier-II Exam. 12.04.2015 (TF No. 567 TL 9)



155. Ratio of highest and lowest marks obtained in first term among all the subjects is

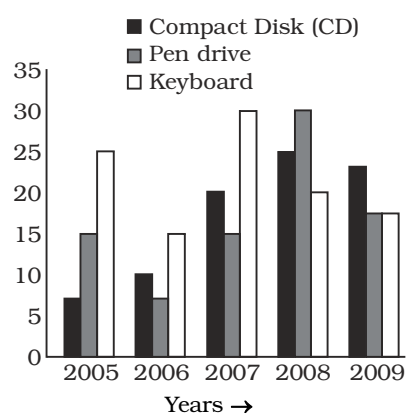
(1) 7 : 9 (2) 9 : 7
(3) 10 : 7 (4) 7 : 10

156. Average marks obtained by the students for all subjects in second term is

(1) 65 (2) 73
(3) 62 (4) 72

Directions (157–161): Study the following graph which shows the production (in thousand) of different items, and answer the questions.

(SSC CGL Tier-II Exam, 2014 12.04.2015 (Kolkata Region) (TF No. 789 TH 7)



157. The total number of all products produced by the company in the year 2006 and 2008 together is

(1) 107500 (2) 105700
(3) 10750 (4) 1075

158. The average number of pendrives produced by the company over all the years together is

(1) 1700 (2) 170000
(3) 17000 (4) 85000

159. The difference between the total number of CD and pen-drives produced by the company together in the year 2008 and the number of keyboards produced by the company in the year 2006 is

(1) 3500 (2) 35000
(3) 4000 (4) 40000

160. The ratio between the number of keyboards produced by the company in the year 2006, 2007 and 2008 respectively is

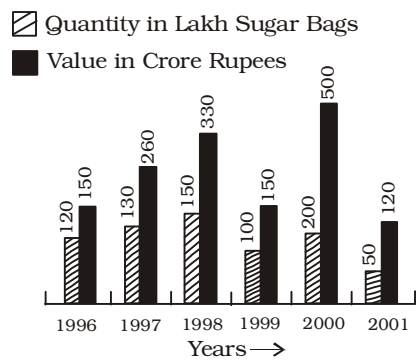
(1) 1 : 2 : 3 (2) 3 : 4 : 5
(3) 3 : 6 : 4 (4) 3 : 4 : 6

161. The respective ratio between the number of CDs produced by the company in the year 2009 and the number of keyboards produced by the company in the year 2005 is

(1) 9 : 10 (2) 11 : 10
(3) 10 : 9 (4) 10 : 11

Directions (162–165) : Study the bar diagram and answer the questions.

(SSC CAPFs SI, CISF ASI & Delhi Police SI Exam, 21.06.2015 (Ist Sitting) (TF No. 8037731)



162. Percentage fall in value from 2000 to 2001 is

(1) 25% (2) 50%
(3) 75% (4) 40%

163. The difference between the bags exported in 1999 and 2000 was

(1) 1,00,000,00
(2) 1,50,000,00
(3) 50,000,00
(4) 2,00,000,00

164. Value per bag was minimum in the year

(1) 2001 (2) 1999
(3) 1996 (4) 1997

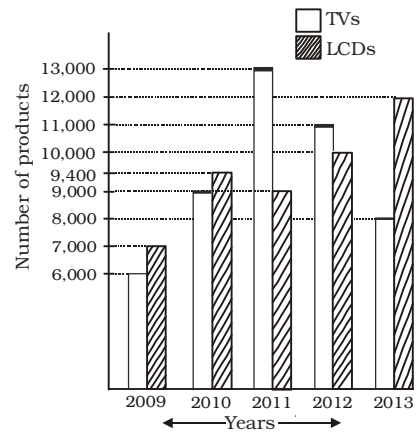
165. The approximate percentage increase in quantity from 1997 to 1998 was

(1) 26.9% (2) 27.8%
(3) 26.5% (4) 27.3%

Directions (166–169) : Study the following bar diagram carefully and answer the following questions.

(SSC CGL Tier-I Exam, 09.08.2015 (Ist Sitting) TF No. 1443088)

The number of the production of electronic items (TVs and LCDs) in a factory during the period from 2009 to 2013.



166. The total number of products of electronic items is maximum in the year

(1) 2009 (2) 2010
(3) 2011 (4) 2013

167. The ratio of production of LCDs in the year 2011 and 2013 is

(1) 3 : 4 (2) 4 : 3
(3) 2 : 3 (4) 1 : 4

168. The difference between averages of production of TVs and LCDs from 2009 to 2012 is

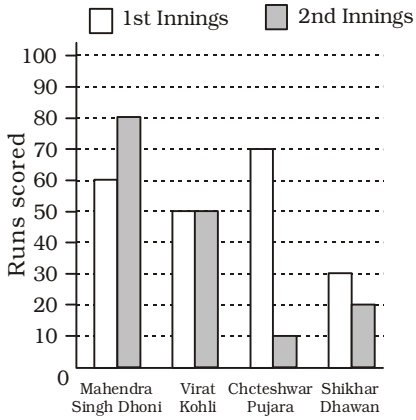
(1) 600 (2) 700
(3) 800 (4) 900

169. The ratio of production of TVs in the years 2009 and 2010 is

(1) 7 : 6 (2) 6 : 7
(3) 2 : 3 (4) 3 : 2

Directions (170 – 173) : Given here is a multiple bar diagram of the scores of four players in two innings. Study the diagram and answer the questions.

(SSC CGL Tier-I Exam, 16.08.2015 (Ist Sitting) TF No. 3196279)



170. The average runs of two innings of the player who scored highest in average are :
(1) 70 (2) 80
(3) 85 (4) 75

171. The average runs in two innings of the player who has scored minimum in the second innings are:
(1) 30 (2) 60
(3) 50 (4) 40

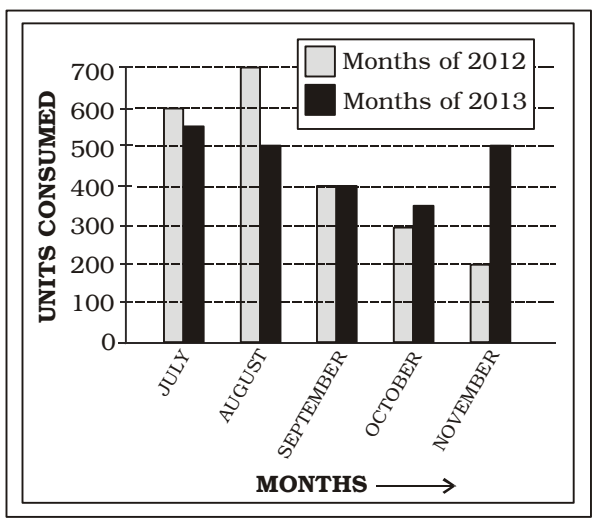
172. The total scores in the first innings contributed by the four players is :
(1) 190 (2) 210
(3) 220 (4) 200

173. The average score in second innings contributed by the four players is :
(1) 40 (2) 50
(3) 30 (4) 60

Directions (174–177) : Study the following bar–diagram and answer the questions.

(SSC CGL Tier-I Exam, 16.08.2015 (IInd Sitting) TF No. 2176783)

Electricity units consumed by a family in two consecutive years during July to November.



174. In how many months in 2012, the consumption of electric units was more than the average units consumption in that year ?
(1) 4 (2) 5
(3) 2 (4) 3

175. The average electric consumption by the family during these 5 months in 2013 is
(1) 470 units (2) 400 units
(3) 440 units (4) 450 units

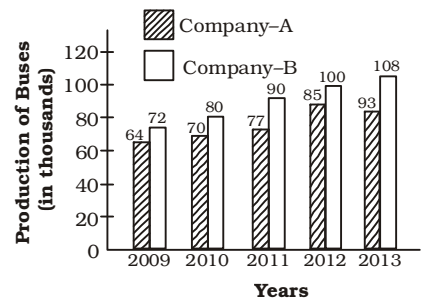
176. The maximum difference in the units consumption between these two years has been found in the month of
(1) August (2) July
(3) October (4) November

177. The total units consumption in the year 2013 during these 5 months, in respect of the same in the previous year has been
(1) increased by 2.27%
(2) decreased by 2.27%
(3) found unaltered
(4) increased by 2.22%

Directions (178–181): Study the following bar diagram carefully and answer the four questions.

(SSC CGL Tier-I Re-Exam, 30.08.2015)

Production of buses of company A and company B over the given years.



178. In which year for the company A the percentage increase of production of buses with respect to the previous year is maximum?
(1) 2010 (2) 2012
(3) 2011 (4) 2013

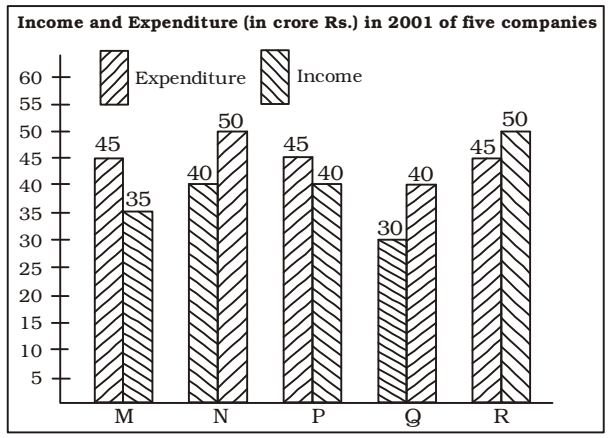
179. The average production (in thousand) of the company B over the years 2009, 2011, 2012 is
(1) 87.33 (2) 80.67
(3) 90.33 (4) 84

180. The average production (in thousand) of company A over the years 2010, 2011, 2012, 2013 is
(1) 74 (2) 81.25
(3) 85.5 (4) 81

181. The ratio of the average production of company A in 2009 and 2010 to the average production of company B in the same years is
(1) 147 : 170 (2) 81 : 95
(3) 67 : 76 (4) 85 : 99

Directions (182 – 186) : Study the bar chart given below and answer the following questions :

(SSC CHSL (10+2) LDC, DEO & PA/SA Exam, 15.11.2015 (Ist Sitting) TF No. 6636838)



182. In 2001, the approximate percentage of profit/loss of all the five companies taken together is equal to
(1) 6.88% loss (2) 4.65% profit
(3) 6.48% profit (4) 4% loss

183. If the income of compnay Q in 2001 was 10% more than that in 2000 and the company had earned a profit of 20% in 2000, then its expenditure in 2000 (in crores Rs.) was :
(1) 34.34 (2) 28.28
(3) 29.09 (4) 32.32

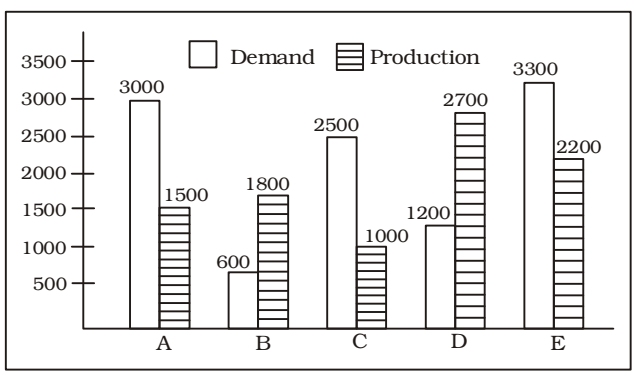
184. The company earning the maximum percentage of profit in the year 2001 is :
(1) Q (2) M
(3) N (4) P

185. The companies M and N together had a percentage of profit/loss of :
(1) No loss and no profit
(2) 12% loss (3) 10% loss
(4) 10% profit

186. For company R, if the expenditure had increased by 20% in the year 2001 from the year 2000 and the company had earned profit of 10% in 2000, the company's income in 2000 was (in crore Rs.) :
(1) 41.67 (2) 35.75
(3) 37.25 (4) 38.5

Directions (187–191) : The following chart represents Demand and Production for 5 companies ABCDE. On the basis of the graph answer the questions.

(SSC CHSL (10+2) LDC, DEO & PA/SA Exam, 15.11.2015 (IInd Sitting) TF No. 7203752)



187. If company A desires to meet the demand by purchasing surplus production of company, then the most suitable company is :
(1) C (2) D
(3) E (4) B

188. If x% of demand for company C equals demand for company B, then x equals
(1) 24 (2) 20
(3) 60 (4) 4

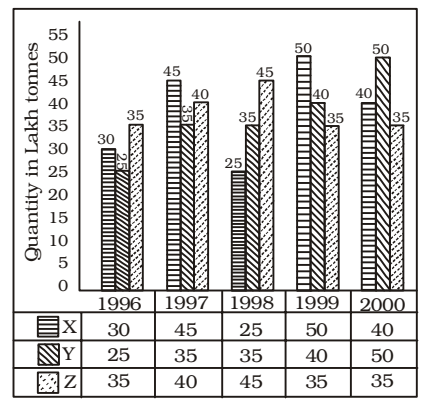
189. If the production of company D is h times of the production of company A. Then h equals :
(1) 1.5 (2) 2.5
(3) 1.2 (4) 1.8

190. The difference between average demand and average production of the five companies taken together is :
(1) 400 (2) 280
(3) 130 (4) 620

191. The ratio of the number of companies having more demand than production to those having more production than demand is :
(1) 4 : 1 (2) 2 : 2
(3) 3 : 2 (4) 2 : 3

Directions (192-196) : The bar graph provided below gives the data of the production of paper (in lakh tonnes) by three different companies X, Y and Z over the years. Study the bar chart and answer the following questions.

(SSC CHSL (10+2) LDC, DEO & PA/SA Exam, 06.12.2015 (Ist Sitting) TF No. 1375232)



	1996	1997	1998	1999	2000
X	30	45	25	50	40
Y	25	35	35	40	50
Z	35	40	45	35	35

192. The percentage of production of company Z to the production of company Y is maximum in :
(1) 2000 (2) 1996
(3) 1999 (4) 1998

193. The ration of the average production of company X in the period 1998-2000 to the average production of company Y in the same period is :
(1) 27 : 29 (2) 23 : 25
(3) 25 : 26 (4) 24 : 27

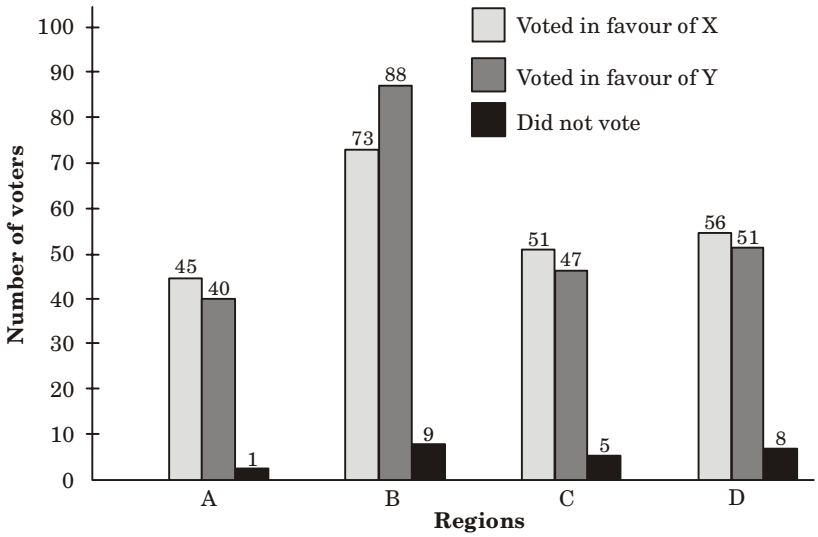
194. The average production for five years is maximum for which company?
(1) X and Z (2) X
(3) Z (4) Y

195. The percentage increase in the production of company Y from 1996 to 1999 is :
(1) 60% (2) 50%
(3) 55% (4) 40%

196. The difference between the production of company Z in 1998 and company Y in 1996 is :
(1) 25,00,000 tonnes
(2) 10,00,000 tonnes
(3) 15,00,000 tonnes
(4) 20,00,000 tonnes

Directions (197–200) : A constituency is divided in four regions A, B, C and D. Two candidates X and Y contested the last election from that constituency. The adjoining graph gives the break–up of voting in the four regions. Study the graph and answer the following questions.

(SSC CGL Tier-I (CBE) Exam. 09.09.2016) (Ist Sitting)



197. Approximately how much percent of voters voted in favour of X?
(1) 45.4 (2) 47.5
(3) 50 (4) 225

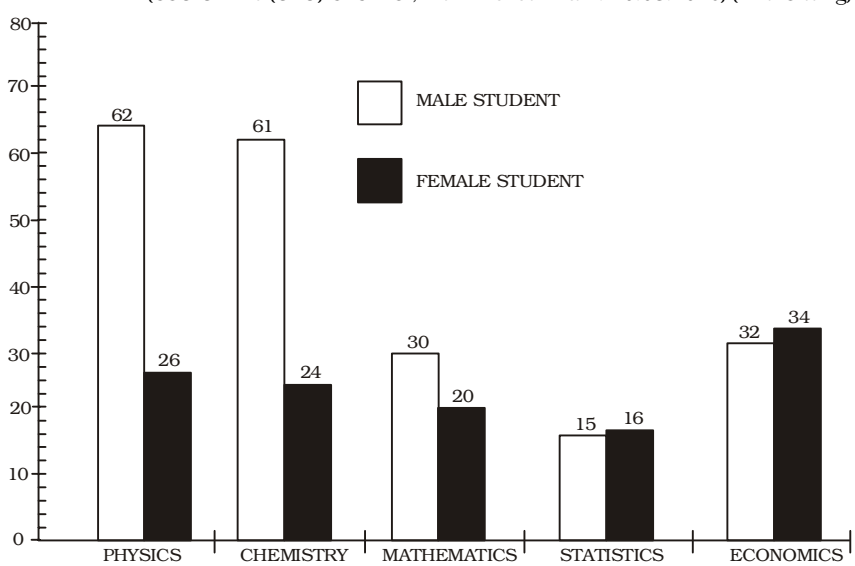
198. Approximately how much percent of voters did not caste their votes?
(1) 4.9 (2) 4.5
(3) 0.23 (4) 23

199. In region B, Y gets A% more votes than X. Find the value of A.
(1) 24% (2) 21%
(3) 19% (4) 15%

200. Nearly what percentage of his total votes did X receive from region B?
(1) 30 (2) 31
(3) 32 (4) 35

Directions (201–204) : The data given in Bar diagram relate to the department wise admission of 320 students to B.Sc. (Honours) first year classes of a certain college in the given five subjects. Study the graph and answer the questions.

(SSC CAPFs (CPO) SI & ASI, Delhi Police Exam. 20.03.2016) (IInd Sitting)



201. The subject in which the difference in the number of male and female students is minimum in :
(1) Economics (2) Physics
(3) Statistics (4) Chemistry

202. The difference of the choice of the subject between male and female students is maximum for the subject.
(1) Physics (2) Statistics
(3) Economics (4) Chemistry

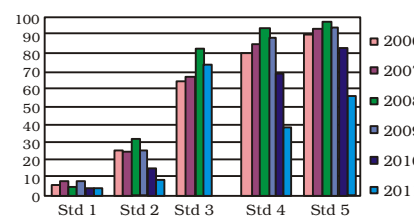
203. The total number of male students who got admitted in Mathematics and Economics as compared to the total number of female students getting admission in Mathematics and Economics is :
(1) less by 17%
(2) more by 4.2%
(3) more by 14.8%
(4) more by 12.8%

204. The subject which the female students are finding difficult as compared to other subjects is :
(1) Statistics
(2) Economics
(3) Mathematics
(4) Chemistry

Direction (205) : Study the following bar graph showing the percentage of children who can read at first grade level, grouped by their grade level in an Indian state.

(SSC CAPFs (CPO) SI & ASI, Delhi Police Exam. 05.06.2016) (Ist Sitting)

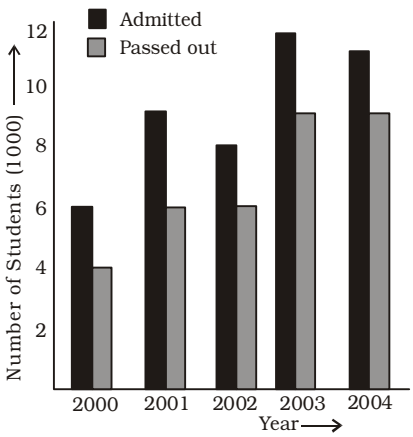
For example, in 2008, 82% of the children from Standard 3 could read a text from Standard 1. Now answer the following question based on this graph.



205. In the year 2010, what is the approximate value of average of all Std 1, 2, 3, 4, 5 children who could read the Std 1 text?
(1) 49.2% (2) 57%
(3) 33% (4) Data Insufficient

Direction (206–209) : The following figure shows the number of students (in thousands) admitted and passed out per year in a college during years 2000 to 2004. Study the figure and answer the questions.

(SSC CGL Tier-I (CBE) Exam. 29.08.2016) (IInd Sitting)



206. The percent increase in the number of students admitted in the year 2003 over that in 2001 is
(1) 133.3 (2) 33.3
(3) 40.3 (4) 66.7

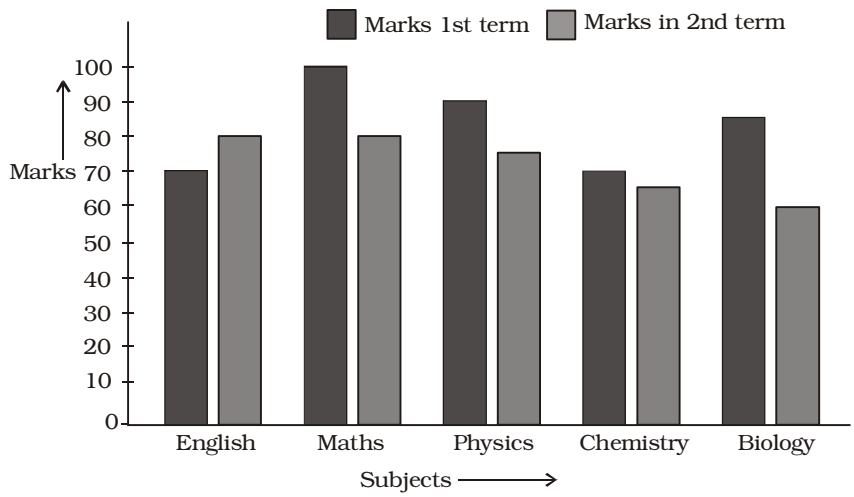
207. During 2000 to 2003, the ratio of the total number of the students passed out to the total number of students admitted is
(1) $\frac{17}{23}$ (2) $\frac{17}{6}$
(3) $\frac{11}{23}$ (4) $\frac{5}{7}$

208. In which of the two years, the pass percentage of students was between 60 and 70 ?
(1) 2000 and 2001
(2) 2003 and 2004
(3) 2001 and 2002
(4) None of these

209. The ratio of the number of students admitted in the year 2002 to the average of the number of students passed out in the years 2003 and 2004. is
(1) 7 : 8 (2) 8 : 9
(3) 9 : 8 (4) 8 : 7

Directions (210–213) : Study the bar diagram and answer the following questions.

(SSC CGL Tier-I (CBE) Exam. 30.08.2016) (Ist Sitting)



210. Average marks obtained in Physics for two terms is
(1) 80.5 (2) 82.5
(3) 72.5 (4) 83.5

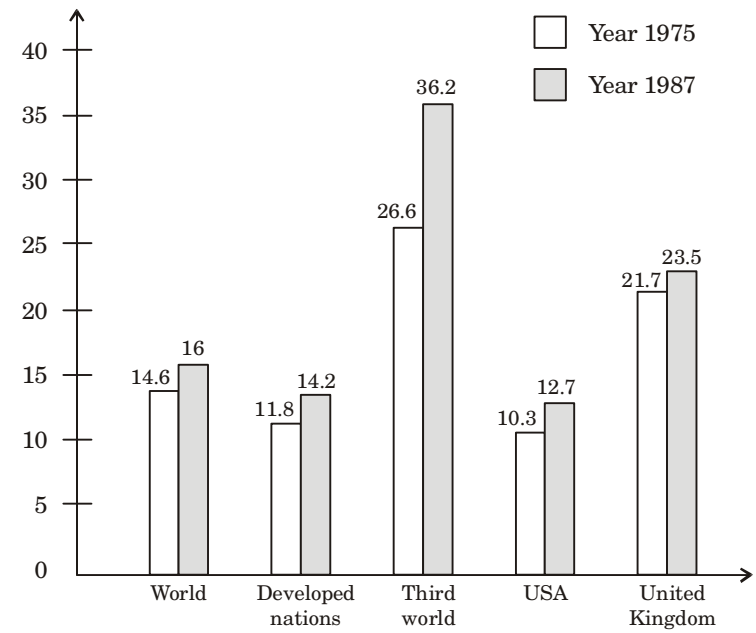
211. Difference of marks obtained in both the terms by the students is maximum in
(1) English
(2) Physics
(3) Biology
(4) Mathematics

212. What is the percentage of marks obtained in Chemistry for both the terms ?
(1) 76.5 (2) 56.7
(3) 75.6 (4) 67.5

213. The ratio of the average of the marks obtained in Biology for two terms to the average of the marks obtained in English and Mathematics for first term only is
(1) 43:92 (2) 39:42
(3) 29:34 (4) 23:94

Directions (214–217) : Study the following Bar graph and answer the questions. The Bar Graph gives the annual rates of inflation in percentages for 1975 and 1987.

(SSC CGL Tier-I (CBE) Exam. 30.08.2016) (IInd Sitting)



214. From 1975 to 1987 , inflation rate increased in the third world countries approximately by
(1) 10% (2) 20%
(3) 30% (4) 36%

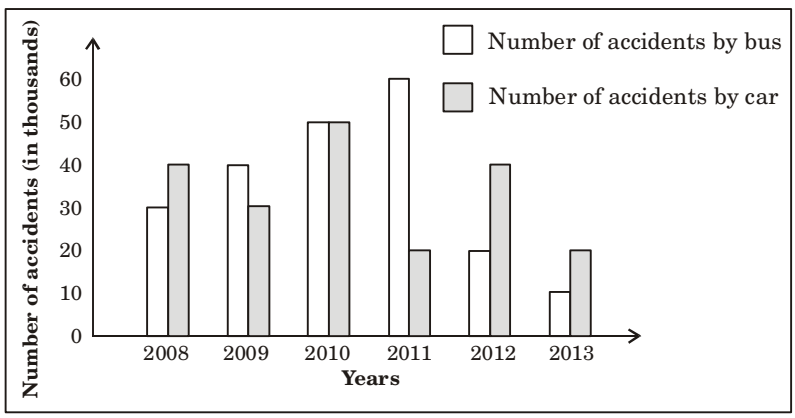
215. The change in rate of inflation was least in which of the following ?
(1) Developed Nations
(2) United Kigdom
(3) World (4) Third world

216. Comparing the figures for USA vis-a-vis the developed nations, it can be concluded that.
(1) USA had better control on inflation
(2) Developed nations had better control on inflation
(3) The inflation rate continues to be the same for USA and developed nations
(4) No conclusions can be drawn

217. In the year 1987 , the inflation rate in the third world countries vis-a-vis the world jumped approximately by
(1) 135% (2) 126%
(3) 122% (4) 200%

Directions (218–221) : The Bar graphs represents the number of road accidents due to bus and car during the years 2008 2013. Study the graph and answer the questions.

(SSC CGL Tier-I (CBE) Exam. 31.08.2016) (IInd Sitting)



218. The total number of road accidents in the year 2009, 2011 and 2013 combined together is
(1) 180000
(2) 110000
(3) 70000
(4) 160000

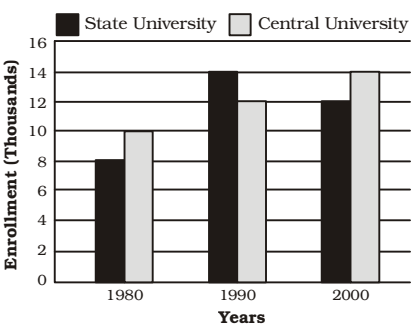
219. The respective ratio of the road accidents due to bus in the year 2008 to that by car in the year 2012 is
(1) 2 : 1
(2) 1 : 2
(3) 2 : 3
(4) 3 : 4

220. The respective ratio between the accidents by cars in the year 2012, 2010 and 2008 is
(1) 2 : 5 : 4
(2) 4 : 5 : 4
(3) 4 : 3 : 2
(4) 4 : 5 : 2

221. The ratio of the averages of the road accidents due to buses to that by cars in the year 2008, 2011 and 2013 is
(1) 4 : 5
(2) 5 : 4
(3) 5 : 1
(4) 1 : 4

Directions (222–225) : Study the following bar graph carefully and answer the questions.

(SSC CGL Tier-I (CBE) Exam. 04.09.2016 (IInd Sitting)



222. In 1990, how many more students were enrolled at State University than at Central University?
(1) 1505 students
(2) 1650 students
(3) 2000 students
(4) 1980 students

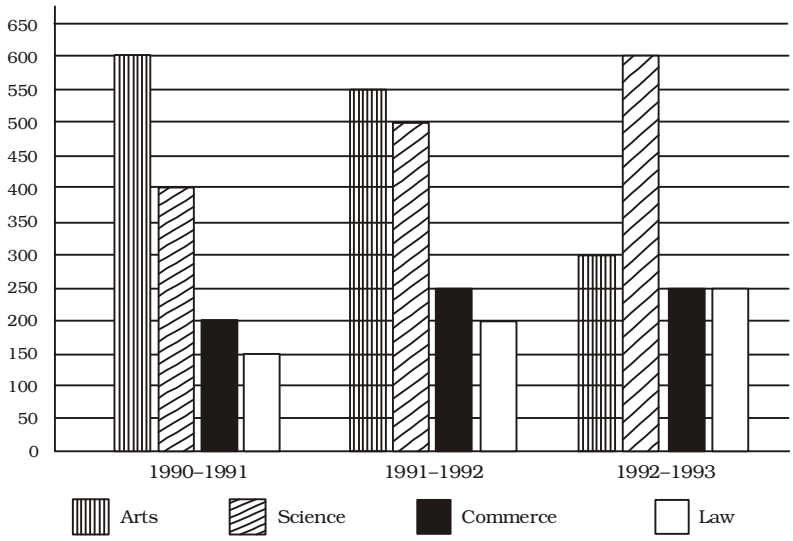
223. Total enrolments in both State University and Central University during the year 1980, 1990 and 2000 is
(1) 80000
(2) 66000
(3) 70000
(4) 76000

224. The ratio of the total enrolments in the year 1980 and 2000 at the State University and Central University is
(1) 4 : 5
(2) 2 : 3
(3) 6 : 5
(4) 5 : 6

225. The tuition fee at State University in the year 2000 was Rs.6500 per enrolment. What was the total revenue collected from the tuition fee at State University during that year?
(1) Rs.80,000,000
(2) Rs.78,000,000
(3) Rs.65,000,000
(4) Rs.56,000,000

Directions (226–229) : Shown below is the multiple bar diagram depicting the changes in the student's strength of a college in four faculties from 1990–91 to 1992– 93. (Scale 1 cm = 100)

(SSC CGL Tier-I (CBE) Exam. 04.09.2016 (IIIrd Sitting)



226. A regular decrease in student's strength was in the faculty of
(1) Arts (2) Science
(3) Commerce (4) Law

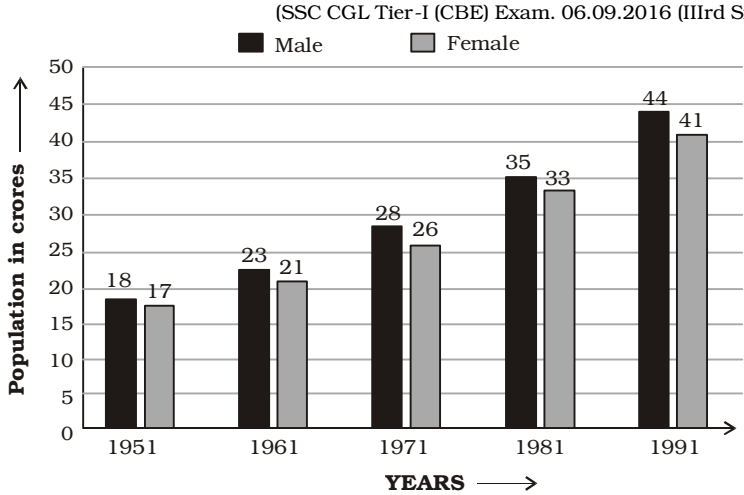
227. How much per cent was the increase in science students in 1992–93 over 1990–91?
(1) 50% (2) 150%
(3) $66\frac{2}{3}\%$ (4) 75%

228. The respective ratio of the number of commerce students to the number of law students from 1990–91 to 1992–93 is :
(1) 6 : 7 (2) 7 : 6
(3) 14 : 1 (4) 2 : 8

229. During which year the strength of arts faculty was minimum ?
(1) 1990–91 (2) 1991–92
(3) 1992–93 (4) None of these

Directions (230-233) : The bar graph shows the number of males and females (in crores) in India during 1951–1991. Read the graph and answer the following questions

(SSC CGL Tier-I (CBE) Exam. 06.09.2016 (IIIrd Sitting)



230. What was the approximate percentage of female population in India during 1991 ?
(1) 48.23 (2) 48.02
(3) 48.03 (4) 48.33

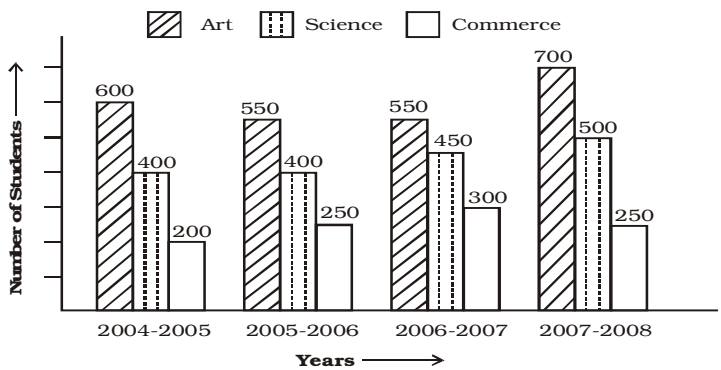
231. What was the approximate number of males in India in 1971 per thousands females ?
(1) 913 (2) 1075
(3) 1077 (4) 1175

232. What is the ratio of the number of females in India in 1961 per thousand males to the number of males in India in 1991 per thousand females?
(1) 943 : 1077 (2) 1077 : 943
(3) 1073 : 913 (4) 913 : 1073

233. Assuming that the rate of increase in the total population in India during 1991-2001 remains the same as that was during the period 1981-1991, estimate the total population in India in 2001.
(1) 105.62 crores
(2) 106.25 crores
(3) 106.52 crores
(4) 105.26 crores

Directions (234-237) : Student strengths of a college in Arts, Science and Commerce from 2004-2005 to 2007-2008 session are shown in the following bar graph. Study the graph and answer the questions that follow.

(SSC CGL Tier-I (CBE) Exam. 08.09.2016 (IInd Sitting)



234. The ratio of average number of students in Science to the average number of students in Commerce is :
(1) 10 : 7 (2) 7 : 4
(3) 12 : 5 (4) 48 : 35

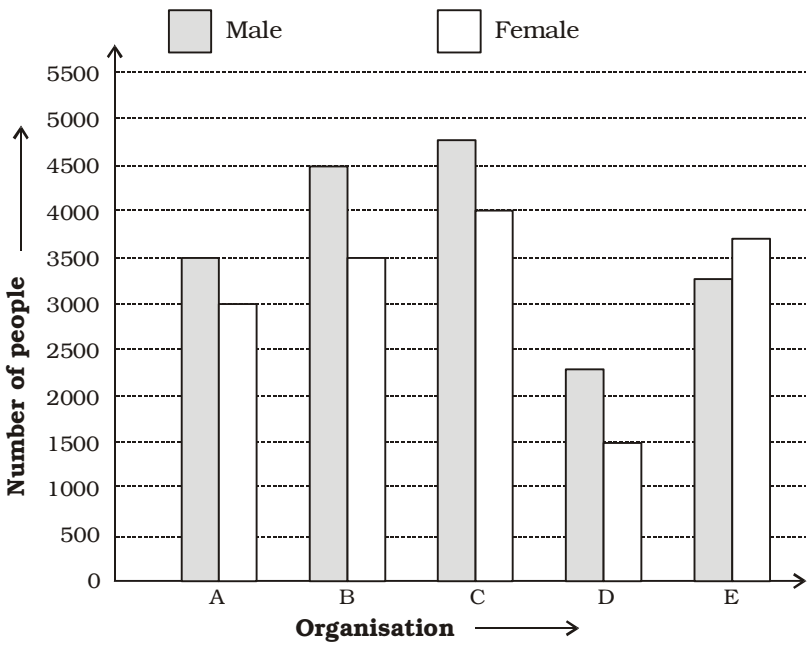
235. The increase in the number of Arts students in 2007-2008 session over that in 2005-2006 session is :
(1) 25% (2) 21.42%
(3) 27.27% (4) 37.5%

236. Approximate percentage of students in Science stream during the session 2006-2007 is :
(1) 42.31% (2) 40.91%
(3) 41.26% (4) 31.42%

237. Percentage increase in total number of students in 2007-2008 session over that in 2004-2005 session is approximately
(1) 29.71 (2) 25.65
(3) 10.56 (4) 20.83

Directions (238–242) : The following bar-diagram shows total number of males and females in five different organisations. Study it carefully to answer the questions.

(SSC CGL Tier-II (CBE) Exam. 12.01.2017)



238. What is the difference between the total number of females and the total number of males from all the organisations together?
(1) 2005 (2) 2050
(3) 2500 (4) 2055

239. By how much percentage is the average number of females from all the organisations together is more than the number of males in organisation 'D'?
(1) 30% (2) 38%
(3) 40% (4) 45%

240. What is the ratio of the number of females from the organisations B and C to the number of males from the organisations D and E?
(1) 12 : 11 (2) 12 : 15
(3) 11 : 15 (4) 15 : 11

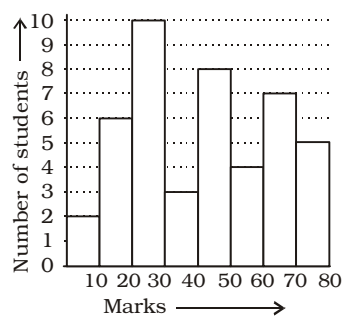
241. Males from organisations A and B together form what per cent of total number of males from organisations C, D and E together?
(1) 78.04% (2) 87.44%
(3) 47.08% (4) 74.08%

242. What is the ratio of average number of females from the organisations A, B and C to the average number of males from the organisations C, D and E?
(1) 42 : 41 (2) 41 : 42
(3) 40 : 41 (4) 41 : 40

TYPE-VI

Directions (1–5) : The histogram shows the marks obtained by 45 students of a class. Look at the histogram and answer the questions.

(SSC CPO (SI, ASI & Intelligence Officer) Exam. 28.08.2011 (Paper-I)



1. How many students have obtained marks 50 and above ?
(1) 9 (2) 10
(3) 11 (4) 16

2. If the pass mark be 30, what is the number of failures ?
(1) 2 (2) 6
(3) 18 (4) 20

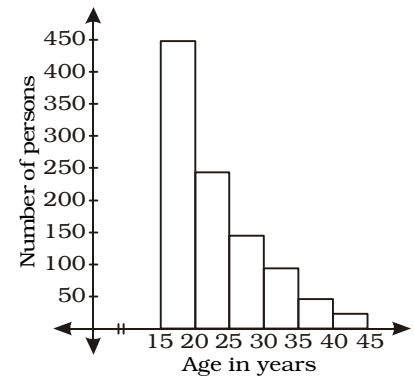
3. If the pass mark be 30, what is the percentage of successful students ?
(1) 75% (2) 60%
(3) 50% (4) 40%

4. How many students have obtained marks less than 10 ?
(1) 2 (2) 10
(3) 1 (4) 4

5. How many students have obtained 30 or more marks but less than 40 ?
(1) 3 (2) 4
(3) 5 (4) 6

Directions (6–10) : Study the following histogram and answer the questions.

(SSC CHSL DEO & LDC Exam. 21.10.2012 (IInd Sitting)



6. The total number of persons in the age group of 15 years to 45 years is :
(1) 450 (2) 800
(3) 1000 (4) 500

7. The number of persons in the age group 20 – 30 years is :
(1) 475 (2) 400
(3) 300 (4) 700

8. The ratio of the number of persons between the age group of 20 – 25 and 30 – 35 is :
(1) 1 : 3 (2) 2 : 1
(3) 10 : 3 (4) 6 : 1

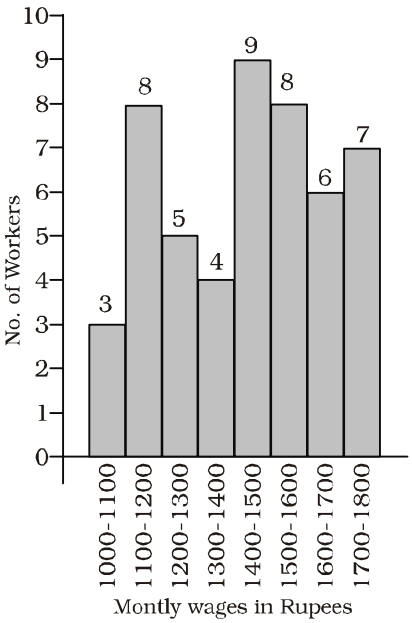
9. The ratio of maximum population in an age group to the total number of persons under study is :
(1) 4 : 5 (2) 9 : 10
(3) 9 : 20 (4) 2 : 5

10. The percentage of population under study which is in the age group of 40 – 45 is :
(1) 2.5% (2) 3.5%
(3) 1.5% (4) 5%

Directions (11–14) : Study the bar-graph and answer the following questions.

(SSC Assistant Grade-III Exam. 11.11.2012 (IInd Sitting)

Bar-graph showing the wages of workers in a factory
Monthly wages in Rupees



11. The total number of workers in the factory is
(1) 42 (2) 48
(3) 50 (4) 46

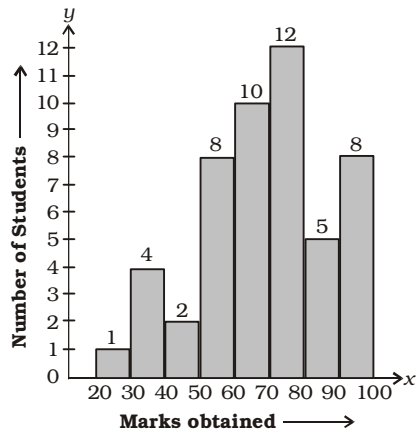
12. The ratio of the number of workers placed in the lowest wage group to that of the workers in the highest wage group is
(1) 3 : 7 (2) 8 : 9
(3) 3 : 4 (4) 2 : 3

13. The total amount of money (approximately) needed to pay the monthly wages of all the workers is
(1) ₹ 69,100 (2) ₹ 71,600
(3) ₹ 70,500 (4) ₹ 69,500

14. In which wage group, is the amount of money needed to pay the monthly wages the highest ?
(1) 1400 –1500 (2) 1500 –1600
(3) 1700 –1800 (4) None of these

Directions (15-16) : The Histogram shown the marks of 50 students in an examination. Examine the diagram and answer the questions. [Marks are given in integers only].

(SSC Multi-Tasking Staff Exam. 10.03.2013, Ist Sitting : Patna)

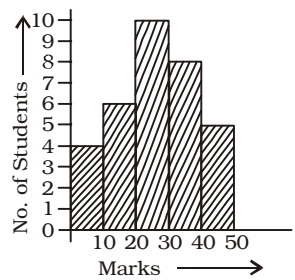


15. How many students obtained more than 39 but below 60?
(1) 8 (2) 6
(3) 10 (4) 12

16. What per cent of students did obtain marks above 60?
(1) 60% (2) 80%
(3) 70% (4) 75%

Directions (17-20) : Study the following Histogram and answer the following questions.

(SSC Graduate Level Tier-I Exam. 21.04.2013)



17. The total number of students involved in the data is
(1) 33 (2) 32
(3) 43 (4) 42

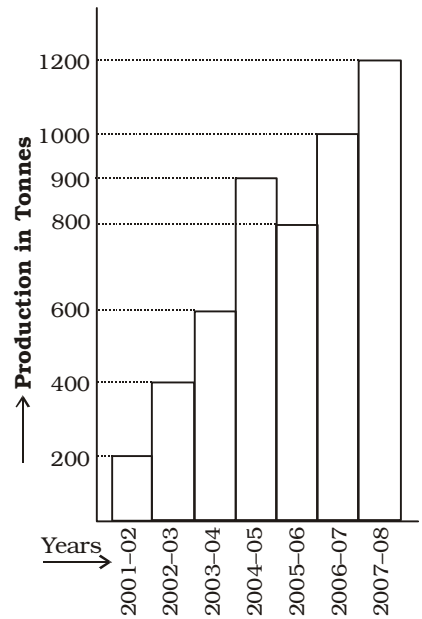
18. The maximum number of students got the marks in the interval of
(1) 10 – 20 (2) 20 – 30
(3) 30 – 40 (4) 40 – 50

19. The least number of students got the marks in the interval
(1) 40 – 50 (2) 20 – 30
(3) 10 – 20 (4) 0 – 10

20. The ratio of the students obtaining marks in the first and the last interval is
(1) 5 : 4 (2) 6 : 5
(3) 4 : 5 (4) 3 : 4

Directions (21– 24) : Study the graph carefully and answer the questions.

(SSC Graduate Level Tier-I Exam. 19.05.2013 Ist Sitting)



The graph shows production of an item (in tonnes) during certain years

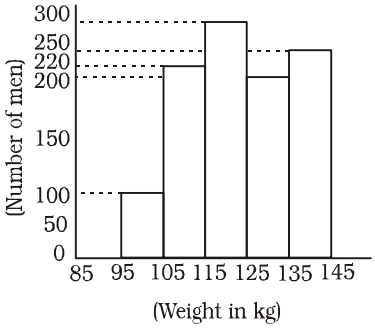
21. The production in 2006-07 in comparison to the production in 2002-03 increased by
(1) 150% (2) 110%
(3) 120% (4) 125%

22. The production decreased from 2004-05 to 2005-06 by
(1) $11\frac{1}{9}\%$ (2) $8\frac{1}{9}\%$
(3) $9\frac{1}{9}\%$ (4) $10\frac{1}{9}\%$

23. The year in which production increased the lowest as compared to the previous year is
(1) 2007 – 08 (2) 2003 – 04
(3) 2004 – 05 (4) 2006 – 07

24. The production from 2003 – 04 to 2007 – 08 increased by
(1) 125% (2) 50%
(3) 75% (4) 100%

Direction (25) : Study the histogram of weight distribution of different men and answer question based on it.

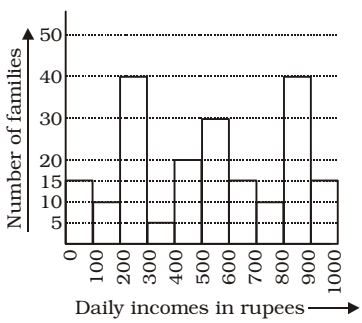


25. Average number of men per interval who participated in this survey is
(1) 200 (2) 180
(3) 214 (4) 194

(SSC Graduate Level Tier-II Exam. 29.09.2013

Directions (26-30) : The histogram, given below, shows the number of families of a locality having various daily incomes, as obtained by a survey. Observe the graph and answer the questions based on it.

(SSC SAS Exam. 26.06.2010 (Paper-1)



26. In all, how many families were surveyed ?
(1) 235 (2) 220
(3) 200 (4) 195

27. The number of families, whose daily incomes are ₹ 800 or above, is
(1) 50 (2) 55
(3) 65 (4) 80

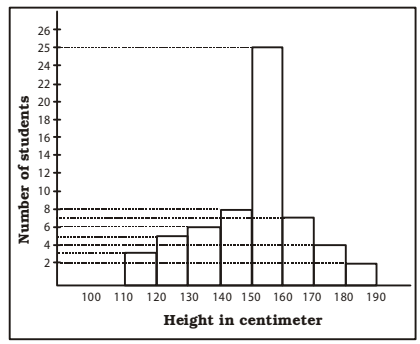
28. The number of families, whose daily incomes are below ₹ 200, is
(1) 25 (2) 20
(3) 15 (4) 10

29. The number of families, whose daily incomes are between ₹ 500 and ₹ 800, is
(1) 35 (2) 40
(3) 45 (4) 55

30. What per cent of families have their daily incomes less than ₹ 500 ?
(1) 90% (2) 45%
(3) 30% (4) 20%

Directions (31-33) : Following histogram depicts the range of heights of students in a class of 60 students. Study the same and answer the questions.

(SSC CGL Tier-I Re-Exam. (2013) 27.04.2014)



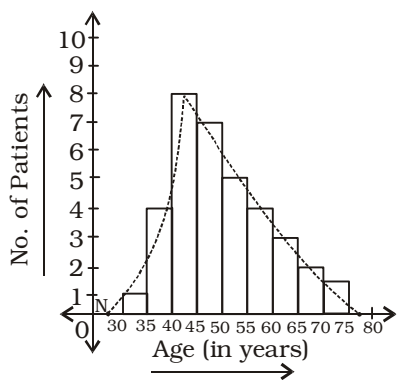
31. The number of students having height more than 150 cms is
(1) 25 (2) 8
(3) 38 (4) 13

32. The number of students with their heights between 130 to 150 cms is
(1) 8 (2) 6
(3) 14 (4) 22

33. Group which contains maximum number of students is
(1) 130 – 140 (2) 150 – 160
(3) 140 – 150 (4) 160 – 170

Directions (34 – 38) : The diagram shows the age-distribution of the patients admitted to a hospital on a particular day. Study the diagram and answer the questions.

(SSC CHSL DEO & LDC Exam. 9.11.2014)



34. Number of patients of age between 55 years to 60 years, who got admitted to the hospital on that day is
(1) 6 (2) 4
(3) 24 (4) 8

35. Total number of patients of age more than 55 years, who got admitted to the hospital is
(1) 4 (2) 7
(3) 9 (4) 10

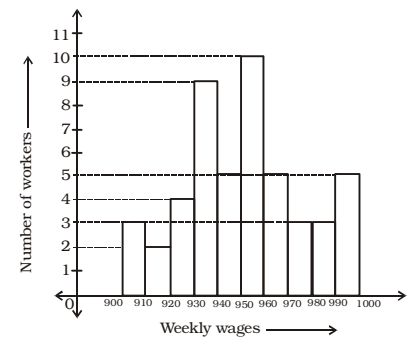
36. Number of patients of age more than 40 years and less than 55 years, who got admitted to the hospital on that day is
(1) 20 (2) 30
(3) 15 (4) 12

37. Percentage of patients of age less than 45 years, who got admitted to the hospital on that day is approximately equal to
(1) 14% (2) 20%
(3) 37% (4) 62%

38. About 11% of the patients who got admitted to the hospital on that particular day were of age
(1) either between 35 years and 40 years or between 55 years and 60 years
(2) between 60 years and 65 years
(3) between 35 years and 40 years
(4) between 35 years and 40 years and between 55 years and 60 years.

Directions (39 – 43) : Study the following histogram of wage distribution of different number of workers and answer the given questions.

(SSC CHSL (10+2) DEO & LDC Exam. 16.11.2014 , Ist Sitting (TF No. 333 LO 2)



39. Number of workers who earn more than Rs. 950 is
(1) 40 (2) 31
(3) 26 (4) 16

40. Number of workers who earn less than Rs. 950 is
(1) 23 (2) 26
(3) 16 (4) 31

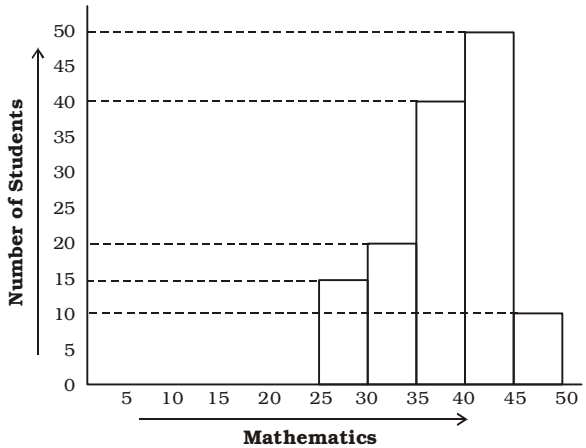
41. Total number of workers surveyed is
(1) 44 (2) 40
(3) 49 (4) 39

42. The number of workers earning more than Rs. 940 but less than Rs. 960 is
(1) 15 (2) 16
(3) 23 (4) 26

43. The percentage of workers who earn between Rs. 950 to Rs. 960 is
(1) 25.5% (2) 20.4% (3) 17.6% (4) 13.25%

Directions (44–47) : Study the following histogram of marks in mathematics (out of 50) of students in a class and answer the following questions.

(SSC CGL Tier-I (CBE) Exam. 07.09.2016 (IInd Sitting)



44. If the pass marks in maths is 31, the number of students who failed in maths is :
(1) 10 (2) 15
(3) 20 (4) 25

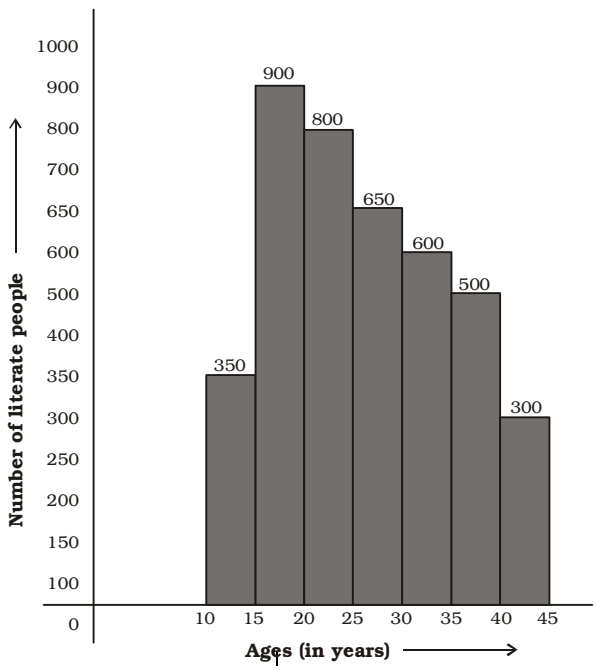
45. The total number of students in the class is :
(1) 120 (2) 125
(3) 130 (4) 135

46. The percentage of number of passed students is (31 is the pass marks)
(1) $85\frac{8}{9}\%$ (2) $86\frac{8}{9}\%$
(3) $87\frac{8}{9}\%$ (4) $88\frac{8}{9}\%$

47. If the students have got the marks out of 50 and if A+ grade has been declared for above 90%, then the number of students who have got A+ grade is :
(1) 10 (2) 20
(3) 30 (4) 40

Directions (48–51) : Study the following histogram of data related to literate people of different age groups and answer the questions given below.

(SSC CGL Tier-I (CBE) Exam. 09.09.2016 (IInd Sitting)



48. Total number of literate people in the age group 15 to 45 years is
(1) 2800
(2) 3700
(3) 4050
(4) 2350

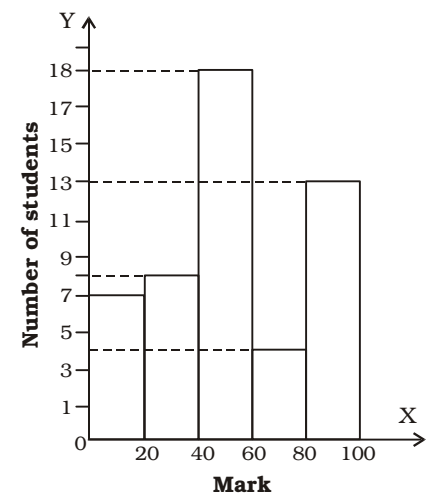
49. The number of literate people in the age group of 20 to 35 years is
(1) 2050
(2) 1250
(3) 2150
(4) 1700

50. The percentage of the literate people in the age group 30 to 45 years is
(1) 39%
(2) 33.33%
(3) 46.25%
(4) 66.66%

51. The respective ratio of literate people in the age group of 20 to 35 years to that in the age group of 30 to 45 years is
(1) 40 : 20 (2) 27 : 41
(3) 41 : 27 (4) 42 : 26

Directions (52–55) : Study the histogram of marks (in Mathematics) distribution of 50 students of class IX and answer the following questions.

(SSC CGL Tier-I (CBE) Exam. 10.09.2016 (IIIrd Sitting)



52. The number of students who have secured marks less than 60 is :
(1) 12 (2) 15
(3) 33 (4) 7

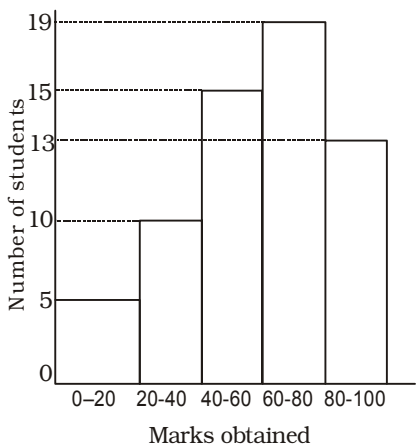
53. The average marks of the students are
(1) 53.2 (2) 45.5
(3) 60.2 (4) 55.5

54. The number of students who have scored between 39 and 80 is :
(1) 22 (2) 18
(3) 37 (4) 15

55. The percentage of students who have secured marks more than 59 is:
(1) 13 (2) 17
(3) 34 (4) 26

Directions (56–57) : In each of the following questions, the following histogram shows the relationship between the marks obtained by the students and the number of students in an examination. Study the histogram and answer the questions.

(SSC Multi-Tasking Staff Exam. 30.04.2017)



56. The percentage of students who obtained 40 marks or less is
(1) 25
(2) less than 25, but not 15
(3) more than 24
(4) 15

57. The ratio of the number of students who obtained 60 or more marks to that of students who obtained 60 or less marks is
(1) 15 : 16 (2) 15 : 19
(3) 14 : 17 (4) 16 : 15

TYPE-VII

Directions (1-5) : A survery of film watching habits of people living in five cities P, Q, R, S and T is summarised below in a table. The coulmn I in the table gives percentage of film-watchers in each city who see only one film a week. The column II gives the total number of film-watchers who see two or more films per week.

(SSC CGL Prelim Exam. 04.07.1999 (Second Sitting)

Read the table and answer the following questions.

City	I	II
P	60	24,000
Q	20	30,000
R	85	24,000
S	55	27,000
T	75	80,000

1. How many film-watchers in city R see only one film in a week ?
(1) 24850 (2) 36000
(3) 136000 (4) 160000

2. Which city has the highest number of film watchers who see only one film in a week?
(1) P (2) R
(3) S (4) T

3. A city with the lowest number of film-watchers is :
(1) P (2) Q
(3) R (4) S

4. The highest number of film-watchers in any given city is :
(1) Q (2) R
(3) S (4) T

5. The total number of all film-watchers in the five cities who see only one film in a week is
(1) 113000 (2) 425200
(3) 452500 (4) 500000

Directions (6-10) : The table given here shows production of five types of cars by a company in the year 1989 to 1994. Study the table and answer questions.

(SSC CGL Prelim Exam. 27.02.2000 (IInd Sitting) & (SSC CHSL DEO & LDC Exam. 11.12.2011 (IInd Sitting)

PRODUCTION OF CARS BY A COMPANY

Year→ Type↓	1989	1990	1991	1992	1993	1994	Total
P	8	20	16	17	21	6	88
Q	16	10	14	12	12	14	78
R	21	17	16	15	13	8	90
S	4	6	10	16	20	31	87
T	25	18	19	30	14	27	133
Total	74	71	75	90	80	86	476

6. In which year the production of cars of all types taken together was **approximately** equal to the average of the total production during the period?
(1) 1989 (2) 1991
(3) 1993 (4) 1994

7. In which year the total production of cars of types P and Q together was equal to the total production of cars of types R and S together?
(1) 1990 (2) 1991
(3) 1994
(4) None of the above

8. During the period 1989-94, in which type of cars was a continuous increase in production?
(1) P (2) Q
(3) R (4) S

9. The production of which type of car was 25% of the total production of all types of cars during 1993?
(1) S (2) R
(3) Q (4) P

10. The percent increased in total production of all types of cars in 1992 to that in 1991 was :
(1) 15% (2) 20%
(3) 25% (4) 30%

Directions (11-15) : Following table gives the population of a locality from 1988 to 1992. Read the table and answer the questions.

(SSC CGL Prelim Exam. 24.02.2002 (Ist Sitting & ssc chsl deo Exam. 02-11-2014)

Years	Men	or Women	Children	Total	Increase (+) decrease (–) over preceding year
1988	65104	60387	—	146947	—
1989	70391	62516	—	—	+ (11630)
1990	—	63143	20314	153922	—
1991	69395	—	21560	—	– (5337)
1992	71274	659935	23789	16098	—

11. The number of children in 1988 is :
(1) 31236 (2) 125491
(3) 14546 (4) 21456

12. The total population in 1989 is :
(1) 144537 (2) 158577
(3) 146947 (4) 149637

13. Number of children in 1989 is :
(1) 25670 (2) 14040
(3) 13970 (4) 15702

14. Number of women in 1991 is :
(1) 57630 (2) 56740
(3) 52297 (4) 62957

15. Increase or decrease of population in 1992 over 1991 is :
(1) – (12413) (2) + (12413)
(3) + 155661 (4) + 7086

Directions (16-20) : Study the table carefully and answer the questions given below.

(SSC CGL Prelim Exam. 08.02.2004 (Second Sitting)

Yearly production (in thousands) of scooters in different factories.

Factory	1985	1986	1987	1988	1989
P	20	15	24	13	17
Q	16	23	41	20	15
R	14	21	30	16	12
S	25	17	15	12	22
T	40	32	39	41	35
Total	115	108	149	102	101

16. In which year, the production of scooters of all factories was equal to the yearly average number of scooters produced during 1985-89 ?
(1) 1985 (2) 1986
(3) 1987 (4) 1988

17. Which factory/factories showed a decrease of 25% in the production of scooters in 1989 as compared to 1988 ?
(1) P (2) S
(3) Q and R (4) P and T

18. The ratio of the production of scooters by factory P to that by factory T in 1985 is
(1) 2 : 3 (2) 1 : 2
(3) 3 : 2 (4) 2 : 1

19. In which year, the total production of scooters was maximum ?
(1) 1989 (2) 1986
(3) 1987 (4) 1985

20. In which year the total production of scooters of all factories was 20% of the total production of scooters during 1985-1989 ?
(1) 1988 (2) 1985
(3) 1986 (4) 1989

Directions (21-24) : Study the following table and answer the questions based on it :

(SSC CGL Prelim Exam. 13.11.2005 (Ist Sitting)

(In lakhs of ₹)

XYZ Co. Pvt. Ltd.			
Year	**Total Sales**	**Gross Profit**	**Net Profit**
1990	351.6	155.5	54.2
1991	407.9	134.3	42.6
1992	380.1	149.9	38.9
1993	439.7	160.5	50.3
1994	485.9	203.3	65.8

21. In which year the difference between the total sales and the gross profit is the least ?
(1) 1990 (2) 1991
(3) 1992 (4) 1993

22. The total sales in 1993 is **approximately** what per cent of the total sales of 1990 ?
(1) 75% (2) 85%
(3) 110% (4) 125%

23. Which years show increase in all categories simultaneously i.e., total sales, gross profit and net profit as compared to the previous year?
(1) 1993 and 1994 both
(2) 1994 and 1992 both
(3) 1992 and 1993 both
(4) 1990 and 1991 both

24. The per cent increase in the gross profit was the maximum in which year as compared to the previous one ?
(1) 1991 (2) 1992
(3) 1993 (4) 1994

Directions (25-28) : Study the table and answer the questions:

(SSC CGL Prelim Exam. 04.02.2007 (IInd Sitting)

The table given below shows the highest and average marks of a class in four subjects in four years. The maximum marks in each subject are 100.

Year	**SUBJECTS**							
	English		Maths		Science		Social Science	
	Highest	Average	Highest	Average	Highest	Average	Highest	Average
1993	80	70	94	60	89	70	65	55
1994	82	65	85	62	95	64	66	58
1995	71	56	92	68	97	68	68	48
1996	75	52	91	64	92	75	77	58

25. What is the overall average of marks in the four subjects in the year 1995 ?
(1) 63 (2) 64
(3) 65 (4) 60

26. Supposing that there were 40 students in science in the year 1995, how much total of marks did they receive combined together?
(1) 2800 (2) 2720
(3) 2560 (4) 3000

27. In which year, the difference between the highest and the average marks in Mathematics was maximum ?

(1) 1995 (2) 1993
(3) 1994 (4) 1996

28. In which year, the difference between the highest and average marks in Social Science was the least ?
(1) 1996 (2) 1995
(3) 1994 (4) 1993

Directions (29–32) : The table given below depicts the export of a commodity through four ports in the years 1998 and 1999.

Study the table and answer the questions.

(SSC CGL Prelim Exam. 27.07.2008 (Ist Sitting)

Port	Export in 1998 (in crore rupees)	Export in 1999 (in crore rupees)
A	57	61
B	148	160
C	229	234
D	146	150

29. The percentage increase in the export of the commodity from the year 1998 to 1999 was the highest from which port ?
(1) A (2) B
(3) C (4) D

30. What was the change in the aggregate export of the commodity in the year 1999 as compared to the year 1998 ?
(1) Nearly 4.3% increase
(2) Nearly 4.3% decrease
(3) Nearly 0.04% increase
(4) Nearly 0.04% decrease

31. What was the average increase in the export of the commodity from the ports in the year 1999 as compared to the year 1998 ?
(1) ₹ 82500000
(2) ₹ 80000000
(3) ₹ 75000000
(4) ₹ 62500000

32. The percentage increase in the export of the commodity from the year 1998 to 1999 was the lowest from which port ?
(1) A (2) B
(3) C (4) D

Directions (33-36) : A survey of movie going habits of city dwellers from 5 cities A, B, C, D and E is given below. The first column gives the percentage of viewers in each city who watch less than two movies a week. The second column gives the total number of viewers who view two or more movies per week. Study the table and answer the questions.

(SSC CHSL DEO & LDC Exam. 04.12.2011 (IInd Sitting (North Zone)

City	I	II
A	60	2400
B	20	3000
C	85	2400
D	55	2700
E	75	8000

33. How many vieweres in city C watch less than two movies a week ?
(1) 2040 (2) 13600
(3) 16000 (4) 3600

34. The city with the lowest number of movie watchers is
(1) City E (2) City D
(3) City B (4) City C

35. The highest number of movie watchers in any given city (in the survey) is
(1) 36000 (2) 32000
(3) 6000 (4) 16000

36. Which two cities have the same number of movie watchers ?
(1) C and E (2) C and D
(3) A and B (4) D and A

Directions (37–40) : Number of toys of five types (A to E) manufactured over the years (in thousands) is given below. Study the table and answer the following questions.

(SSC CHSL DEO & LDC Exam. 04.12.2011 (IInd Sitting (East Zone)

Type / Year	A	B	C	D	E
2002	200	150	78	90	65
2003	150	80	100	105	70
2004	180	175	92	110	85
2005	195	160	120	125	75
2006	220	185	130	135	80

37. The approximate percentage increase in production of D type of toys from 2003 to 2005 was
(1) 5% (2) 19%
(3) 29% (4) 25%

38. The percentage drop in production of A type of toys from 2002 to 2004 was
(1) 10% (2) 20%
(3) 25% (4) 30%

39. The approximate percentage increase of the production of all types of toys from 2005 to 2006 was
(1) 9% (2) 10%
(3) 11% (4) 12%

40. The difference of the average number of toys (in thousands) of the type B and C, manufactured over the years, was
(1) 52 (2) 66
(3) 68 (4) 72

Directions (41-44) : Study the following table which shows the number of students appeared and passed in different streams in a University and answer the questions given below it

(SSC CHSL DEO & LDC Exam. 11.12.2011 (Ist Sitting (Delhi Zone)

	Engineering		Medical		Management		Commerce	
Year	App eared	Pass	App eared	Pass	App eared	Pass	App eared	Pass
2001	324	289	469	246	96	69	1467	1310
2002	356	312	430	364	74	62	1246	1129
2003	284	212	384	326	124	102	1387	1176
2004	310	246	395	298	106	92	1180	1074
2005	426	382	424	382	92	74	1562	1326
2006	380	286	466	405	78	63	1374	1207

41. Approximately what per cent of students appearing in medical, passed in 2003 ?
(1) 75% (2) 85%
(3) 78% (4) 88%

42. Approximately what per cent of total students appearing in 2004, appeared in commerce stream?
(1) 55.3% (2) 64.4%
(3) 52.5% (4) 59.3%

43. The number of students appearing in all streams was minimum in the year
(1) 2002 (2) 2003
(3) 2004 (4) 2006

44. The number of students passing in all streams was maximum in the year.
(1) 2001 (2) 2005
(3) 2006 (4) 2004

Directions (45–48) : The following table shows the production of food grains (in million tonnes) in a State for the period 1988 to 1992. Read the table and answer the following questions.

(SSC CHSL DEO & LDC Exam. 11.12.2011 (IInd Sitting (East Zone)

Year	Production in million tonnes				Total
	Wheat	Rice	Maize	Other Cereals	
1988	580	170	150	350	1250
1989	600	220	234	400	1454
1990	560	240	228	420	1448
1991	680	300	380	460	1820
1992	860	260	340	500	1960
Total	3280	1190	1332	2130	7932

45. During 1990, the percentage of decrease in production of maize as against the previous year was:
(1) 2.63% (2) 2.56%
(3) 2.71% (4) 2.47%

46. In 1991, the increase in production over the previous year was maximum for :
(1) Wheat (2) Rice
(3) Maize (4) Other Cereals

47. The increase in the production of other cereals (over the previous year) was minimum during the year :
(1) 1989 (2) 1990
(3) 1991 (4) 1992

48. During 1992, the percentage of increase in the production of wheat, over the previous year was:
(1) 26.47% (2) 20.92%
(3) 23.67% (4) 18.74%

49. Different choices made by a group of 200 students are given below in percentage. The number of students who have taken neither Science nor Commerce is

Percentage of Students in different streams	
Name of Streams	***Intake Ratio***
Science	29%
Arts	29%
Commerce	31%
Home Science	6%
Others	5%

(1) 80 (2) 120
(3) 60 (4) 40

(SSC Multi-Tasking Staff Exam. 17.03.2013, IInd Sitting)

Directions (50) : The table given below shows production of five types of cars by a company from the year 1998 to 2003. Study the table and answer the question.

Years / Types	1998	1999	2000	2001	2002	2003	Total
P	10	18	16	15	11	18	88
Q	14	12	13	12	11	14	76
R	16	20	14	13	15	12	90
S	5	8	12	14	20	31	90
T	26	18	24	20	23	21	132
Total	71	76	79	74	80	96	476

In which year the production of cars of all types taken together was approximately equal to the average of the total production during the period:

(1) 1999 (2) 2000
(3) 2002 (4) 1998

(SSC Graduate Level Tier-I Exam. 21.04.2013)

Directions (51–52) : The following table gives the result of a survey based on newspaper reading habits. Study the table and answer the questions.

(SSC Constable (GD) Exam. 12.05.2013 Ist Sitting)

Income Group (Salary/ Income per month)	Does not read news-papers	Reads news-papers published in regional languages only	Reads only English paper	Reads both in regional and English languages
Below ₹ 5,000	162	271	123	52
₹ 5,000 – ₹ 10,000	13	285	206	82
Above ₹ 10,000	21	209	325	187

51. The number of people who read only English newspapers.
(1) 975 (2) 654
(3) 1086 (4) 221

52. The total number of people surveyed are
(1) 2040 (2) 1086
(3) 12961 (4) 1936

Directions (53-56) : The following table shows the productions of foodgrains (in million tons) in a state for the period 1999 - 2000 to 2003 - 2004. Read the table and answer the questions.

(SSC CAPFs SI & CISF ASI Exam. 23.06.2013)

	Production (in million tons)			
Year	Wheat	Rice	Barley	Other cereals
1999-2000	680	270	250	450
2000-2001	800	420	440	300
2001-2002	680	350	320	460
2002-2003	720	400	380	500
2003-2004	820	560	410	690

53. In 2002 – 2003, the percentage increase in the production of barley as compared to the previous year was :
(1) 14.20% (2) 17.85%
(3) 18.75% (4) 7.90%

54. During the period 1999 - 2000 to 2003 – 2004, x per cent of the total production is production of wheat. The value of x is about :
(1) 12.6 (2) 37.4
(3) 37.8 (4) 20.2

55. In the year 2003 – 2004, the increase in production was maximum over the previous year for :
(1) Rice
(2) Barley
(3) Other cereals
(4) Wheat

56. The difference of average production of rice and the average production of barley over the years is (in million tonnes) :
(1) 50 (2) 60
(3) 80 (4) 40

Directions (57-60) : The following questions are based on the table given below which represents the distance (in km) travelled by two persons A and B in the same direction :

(SSC Section Officer (Commercial Audit) Exam. 16.11.2003)

Hour	Distance Travelled (in Km)	
	A	B
1st	20	25
2nd	30	40
3rd	20	35
4th	15	25
5th	25	35
6th	15	10
7th	25	25
8th	35	15
9th	20	25
10th	30	45

57. B's average speed (km/hour) during the first four hours is
(1) 21.25 (2) 22
(3) 31.25 (4) 32

58. The ratio of A's speed during the first five hours and the last five hours is
(1) 25 : 22 (2) 22 : 25
(3) 15 : 22 (4) 20 : 21

59. What is the distance (in km) between A and B at the end of 8th hour?
(1) 30 (2) 25
(3) 15 (4) 12

60. The distance between A and B is maximum at the end of
(1) 2 hours (2) 3 hours
(3) 4 hours (4) 5 hours

Directions (61–64) : Study the following table and answer the questions given below.

(SSC CHSL DEO & LDC Exam. 11.12.2011 (Ist Sitting (East Zone)

Annual income of five schools. (Figures in '000 rupees)

Source of Income	Schools				
	A	B	C	D	E
Tuition Fee.	120	60	210	90	120
Term Fee	24	12	45	24	30
Donation	54	21	60	51	60
Grants	60	54	120	42	55
Miscellaneous	12	3	15	3	15
Total	270	150	450	210	280

61. For school E, what per cent of the income from miscellaneous is the income from donation ?
(1) 25% (2) 40%
(3) $\frac{1}{4}$% (4) 400%

62. Which school has the highest percentage of income from tuition fee out of its total income ?
(1) A (2) B
(3) C (4) D

63. In case of how many schools, is the income by way of tuition fee, is less than four times of term fee ?
(1) 0 (2) 1
(3) 2 (4) 3

64. Which school has the lowest ratio of income by way of grants and tuition fee ?
(1) E (2) B
(3) C (4) D

Directions (65-69) : Refer to the following table. Read the table and answer the questions.

(SSC CGL Prelim Exam.: 24.02.2002 (Second Sitting)

Food Grains Production in a country in 1999 (in lakh tons)

State	Rice	Wheat	Jowar	Pulses	Others
P	45	103	—	27	29
Q	48	86	73	19	15
R	59	32	67	14	31
S	41	37	59	21	15
T	37	22	41	13	11
U	68	15	12	—	18
V	57	8	7	12	10
W	38	28	31	22	45

65. Which State had the highest grain production ?
(1) P (2) Q
(3) R (4) S

66. What was the proportion of rice production to wheat production in the country ?
(1) 1 : 1 (2) 0.8 : 1
(3) 1.2 : 1 (4) 2 : 1

67. Jowar was the most important food grain in the State/States :
(1) Q, R, S (2) Q
(3) R, S (4) R, S, T

68. State P alone accounted for approximately what percentage of wheat production in the country ?
(1) 73% (2) 50%
(3) 41% (4) 30%

69. If the average per hectare yield of rice in the country was 30 tons, then the area (approx.) under rice cultivation during the year was approx. (in lakh hectares)
(1) 1.5 (2) 8
(3) 13 (4) 40

Directions (70-74) : Read the following table and answer the questions below it:

(SSC CGL Prelim Exam. 24.02.2002 (Middle Zone) & (SSC CGL Prelim Exam. 13.11.2005) (IInd Sitting)

Loans Disbursed by Four Banks in crores of ₹ during the years

Rupees (In crores)

	Years			
Banks	1995	1996	1997	1998
A	18	23	45	30
B	27	33	18	41
C	29	29	22	17
D	13	19	28	32
Total	87	104	113	120

70. In which year the disbursement of loans by all the banks combined together was nearest to the average disbursement of loans over the years ?
(1) 1995 (2) 1996
(3) 1997 (4) 1998

71. What was the percentage increase of disbursement of loans of all banks together from 1997 to 1998 ?
(1) 6% (2) $6\frac{22}{113}$%
(3) $6\frac{11}{113}$% (4) $7\frac{11}{113}$%

72. In which year was the total disbursement of loans of banks A and B exactly equal to the total disbursement of loans of banks C and D ?
(1) 1995 (2) 1996
(3) 1998 (4) None of these

73. In which of the following banks, there was a continued increase in loan disbursement throughout the years ?
(1) A (2) B
(3) C (4) D

74. In which bank was the loan disbursement more than 30% of the disbursement of all banks combined together in 1998 ?
(1) A (2) B
(3) C (4) D

Directions (75-79) : A table showing the percentage of the total population of a State by age groups for the year 1991 is given below. Answer the questions given below it.

(SSC CGL Prelim Exam. 11.05.2003 (Ist Sitting)

Age group (in years)	Per cent
up to 15	30.00
16 – 25	17.75
26 – 35	17.25
36 – 45	14.50
46 – 55	14.25
56 – 65	5.12
66 & above	1.13
Total	**100.00**

75. Which age group accounts for the maximum population in the State?
(1) 16 – 25 (2) 26 – 35
(3) 36 – 45 (4) 56 – 65

76. Out of every 4200 persons, the number of persons below 26 years is :
(1) 2006 approx.
(2) 1260 approx.
(3) 746 approx.
(4) 515 approx.

77. There are 200 million people below 36 years. How many millions (approx.) people are in the age group 56 – 65 ?
(1) 30.07 (2) 15.75
(3) 12.72 (4) 59.30

78. If there are 10 millions people in the age group 56 years and above, what is the difference between the number of people in the age group 16 – 25 and 46 – 55 ?
(1) 6.8 millions
(2) 5.6 millions
(3) 28.4 millions
(4) 34.7 millions

79. If the difference between the number of people in the age groups (46 – 55) and (26 – 35) is 11.75 millions, then the total population of the State is approximately :
(1) 360.23 millions
(2) 391.67 millions
(3) 400 millions
(4) 460.67 millions

Directions (80-81) : Study the following table and answer the questions.

(SSC CHSL DEO & LDC Exam. 27.10.2013 IInd Sitting)

Year	Percentage of Candidates Qualified under discipline					Total Number of Candidates qualified
	Arts	Science	Commerce	Agriculture	Engineering	
2006	24	40	19	09	08	780
2007	15	42	18	13	12	650
2008	20	45	20	08	07	500
2009	15	45	16	14	10	620
2010	19	35	15	19	12	900
2011	18	42	14	12	14	850

80. The decrease in the number of candidates qualified under Arts discipline from 2010 to 2011 was
(1) 11 (2) 18
(3) 42 (4) 69

81. The difference in the average number of candidates qualified in Science discipline per year from 2006 to 2008 and the average number of candidates qualified in the same discipline from 2009 to 2011 was
(1) 47 (2) 57
(3) 74 (4) 141

Directions (82-83) : Study the table and answer the questions.

(SSC CHSL DEO & LDC Exam. 10.11.2013, Ist Sitting)

Height (in cm)	Number of girls
less than 140	4
less than 145	11
less than 150	29
less than 155	40
less than 160	46
less than 165	51

82. The number of girls whose height is above 150 cm is
(1) 22 (2) 29
(3) 86 (4) 97

83. Average height (in cm) of the girls whose heights are 155cm and above is about
(1) 158.7 (2) 159.8
(3) 160.4 (4) 162.6

Directions (84–85) : The table shows the percentage of total population of a city in different age groups. Study the table and answer the questions.

(SSC CHSL DEO & LDC Exam. 10.11.2013, IInd Sitting)

Age group	Percent
Up to 15	20.00
16 – 25	18.25
26 – 35	16.75
36 – 45	16.25
46 – 55	15.00
56 – 65	12.50
66 and above	1.25

84. If there are 22 million people below 36 years, then the number of people (in millions) in the age group (56 – 65) is
(1) 5 (2) 5.5
(3) 3 (4) 3.5

85. If the difference between the number of people in the age groups (46 – 55) and (16 – 25) is 0.975 million, then the total population (in millions) of the city is
(1) 27 (2) 30
(3) 22 (4) 25

Directions (86-88) : The following table gives zonewise survey report of the people of a country who take coffee. Study the table and answer the questions.

(SSC CGL Tier-I Exam. 19.10.2014)

Take coffee	Zone			
	North	East	West	South
More than 3 times a day	410	310	700	1450
1 to 3 times a day	1220	830	1250	1120
Twice a week	1640	710	950	420
Only once a week	620	540	530	350
Never	950	430	620	50

86. The percentage of people of south zone who take coffee at least once a day is close to
(1) 33.51 (2) 42.72
(3) 75.81 (4) 80.82

87. The percentage of people from non-west zone who take coffee 'only once a week' is approximately
(1) 11 (2) 12
(3) 13 (4) 14

88. The ratio of the total number of people surveyed who take coffee more than 3 times a day to the total number of people who do not take coffee at all is
(1) 1 : 1.4 (2) 1.4 : 1
(3) 1.5 : 1 (4) 1 : 1.1

Directions (89–91) : Study the following table and answer the questions.

(SSC CGL Tier-I Exam. 19.10.2014 TF No. 022 MH 3)

School	No. of students scoring marks less than 50%	Percentage of students scoring marks more than 50%	No. of students appeared
A	240	55	600
B	220	40	400
C	300	20	375
D	280	10	350
E	210	25	300

89. The ratio of the total number of students scoring marks less than 50% to that of scoring marks exactly 50% is
(1) 50 : 3
(2) 25 : 2
(3) 25 : 4
(4) 35 : 2

90. Which school has the highest number of students scoring exactly 50% marks ?
(1) D
(2) E
(3) B
(4) A

91. The total number of students scoring 50% or more marks is
(1) 1250 (2) 875
(3) 775 (4) 675

Directions (92 - 95) : The following questions are based on the table given below which shows production of the number of scooters by a company during the first half of 1992. Study the table and answer the questions.

(SSC CHSL (10+2) DEO & LDC Exam. 16.11.2014 , Ist Sitting TF No. 333 LO 2)

Production of Scooters by a Company during first half of 1992

Month / Type	January	February	March	April	May	June
X	25	25	18	40	20	15
Y	25	27	50	45	30	20
Z	25	27	15	25	30	20
T	25	26	25	0	30	35
Total	100	105	108	110	110	90

92. In which month, was the production of all types of scooters the lowest ?
(1) January (2) February (3) March (4) June

93. In which month, did the company produce equal number of all types of scooters ?
(1) January (2) March
(3) May (4) June

94. The total number of scooters produced by the company, during the first half of 1992 is
(1) 90 (2) 143
(3) 623 (4) 197

95. In which two months, was the number of scooters produced by the company the same ?
(1) January, February
(2) April, May
(3) January, March
(4) January, May

Directions : (96–100) : The table given below shows the statistics of top 10 scoresrs in IPL 2016. Few entries are missing in the table. Here INN, AVG, and SR stands for innings played, batting average, and batting strike rate respectively. Based on the table answer the following question :

(SSC CPO SI & ASI, Online Exam. 06.06.2016) (IInd Sitting)

(Strike rate = Runs/ balls faced × 100) (AVG = Runs/ INN - NOT OUT)

Player	INN	Runs	Not Out	Balls Faced	AVG	SR	4s	6s
Virat Kohli	12	752	3	508		148.03	60	28
AB de Villiers	12	597	2	344	59.7	173.55	51	32
David Wamer	12	567	2		56.7	155.77		23
Ajinkya Rahane	13	461		364	46.1		50	9
Rohit Sharma	13	459	3	351	45.9	130.77	45	
GautamGambhir	12	449	2	360	44.9	124.72	50	5
Shikhar Dhawan	12	402		352	50.25	114.2		4
Quinton de Kock	11	385	1	266	38.5		47	12
Murali Vijay	12	378	1	315	34.36		44	6
Ambati Rayudu	12	334	1	278	30.36	120.14	28	12

96. How many total balls were faced by Warner ?
(1) 331 (2) 364
(3) 423 (4) 286

97. Approoximately by what percent strike rate of Rahane is greater/ lower than strike rate of Kock ?
(1) 12% greater (2) 12% lower
(3) 10% greater (4) 10% lower

98. How many runs were scored by hitting sixes taking all the players together ?
(1) 780 (2) 880
(3) 786 (4) 886

99. By what percent approximately is the batting average of Virat Kohili more than that of Gautam Gambhir ?
(1) 80 (2) 85
(3) 75 (4) 70

100. What is the difference between the strike rate of Murali Vijay and that of Rohit Sharma ?

(1) 10.77 (2) 12.75 (3) 30.77 (4) 15.35

Directions (101–105) : Study the table and answer the questions.

The number of 5 types of cycles manufactured by a company over the years is given below :

(SSC CGL Tier-I (CBE) Exam. 03.09.2016 (IInd Sitting)

Years	Types of Cycles (in 1000)				
	A	B	C	D	E
1997	200	150	78	90	65
1998	150	180	100	105	70
1999	180	175	92	110	85
2000	195	160	120	125	75
2001	220	185	130	135	80

101. What was the approximate percentage of increase in production of 'D' type of the cycle from 1998 to 2000?

(1) 10 (2) 19

(3) 15 (4) 17

102. In the case of which type of cycles was total production of the given 5 years the maximum ?

(1) A (2) B

(3) C (4) D

103. What was the percentage drop in production of A type cycle from 1997 to 1999?

(1) 10 (2) 25

(3) 20 (4) 15

104. The production of E type of cycle in 2001 was what per cent of production of B type in 2000?

(1) 40 (2) 50

(3) 45 (4) 25

105. Refer the following data table and answer the following question.

	Cumulative production
January	590
February	1240
March	1940
April	2610
May	3050
June	3420

How many cars were manufactured in the months of April and May?

(1) 810 (2) 1370

(3) 5660 (4) 1110

(SSC CHSL (10+2) Tier-I (CBE) Exam. 15.01.2017) (IInd Sitting)

106. Refer the following data table and answer the following question.

Day of the week	Distance jogged (in kms)
Monday	3
Tuesday	2
Wednesday	2.5
Thursday	5
Friday	1
Saturday	2.5
Sunday	4

If 400 calories are burnt by jogging 5 km, how many calories were burnt in the given week?

(1) 1650 calories

(2) 1550 calories

(3) 1500 calories

(4) 1600 calories

(SSC CHSL (10+2) Tier-I (CBE) Exam. 15.01.2017) (IInd Sitting)

107. Refer the following data table and answer the following question.

Items Raw	Yearly Expense in Rs. lakhs
Materias	11
Labour	7
Rent	5
Interest	3
Taxes	3

Expenditure on raw materials and taxes is what percent of total expenses?

(1) 55.53 per cent

(2) 41.03 per cent

(3) 33.78 per cent

(4) 48.28 per cent

(SSC CHSL (10+2) Tier-I (CBE) Exam. 15.01.2017) (IInd Sitting)

108. Refer the bleow data table and answer the following Question.

	Cumulative production
January	480
February	1050
March	1630
April	1970
May	2670
June	3330

The polygon shows cumulative production of cars manufactured in the month starting from January. How many cars were manufactured in the months of April and May ?

(1) 1040 (2) 1360

(3) 920 (4) 4640

(SSC CHSL (10+2) Tier-I (CBE) Exam. 16.01.2017) (IInd Sitting)

109. Refer the below data table and answer the following Question.

Day of the week	Distance jogged (in kms)
Monday	2.5
Tuesday	4
Wednesday	2.5
Thursday	3.5
Friday	0.5
Saturday	2.5
Sunday	1.5

If 400 calories are burnt by jogging 5km, how many calories were burnt in the given week ?

(1) 1410 calories

(2) 1360 calories

(3) 1310 calories

(4) 1260 calories

(SSC CHSL (10+2) Tier-I (CBE) Exam. 16.01.2017) (IInd Sitting)

110. Refer the below data table and answer the following Question.

Items	Yearly Expense in Rs. lakhs
Raw Materials	12
Labour	6
Rent	3
Interest	4
Taxes	3

Raw Materials and Interest are what per cent of total expenses ?

(1) 49.89 per cent

(2) 42.64 per cent

(3) 64.39 per cent

(4) 57.14 per cent

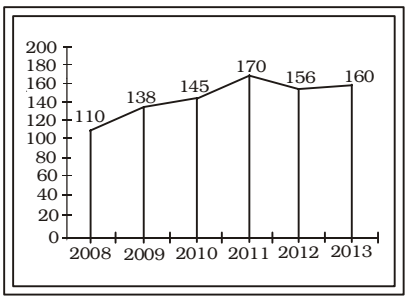
(SSC CHSL (10+2) Tier-I (CBE) Exam. 16.01.2017) (IInd Sitting)

TYPE-VIII

Directions (1 - 3) : Study the following frequency polygon and answer the questions.

Given a line graph showing the number of students passed in Higher Secondary Examination in a school over the years 2008 to 2013.

(SSC CGL Tier-I Exam, 09.08.2015 (IInd Sitting) TF No. 4239378)



1. The average of passed students in the years 2008, 2009, 2012 approximately is
(1) 134.32
(2) 134.41
(3) 134.56
(4) 134.67

2. The increase in percentage of passed students from 2008 to 2011 approximately is
(1) 55%
(2) 50.5%
(3) 54.5%
(4) 53.05%

3. The decrease in percentage of passed students from 2011 to 2012 approximately is
(1) 8.25% (2) 8.27%
(3) 8.24% (4) 8.22%

Directions (4 – 5) : Study the following data and answer the questions.

(SSC Constable (GD) Exam, 04.10.2015, Ist Sitting)

The score of students of a class are given as follows :

IQ Score	80-90	90-100	100-110	110-120	120-130	130-140
No. of Students	6	9	16	13	4	2

4. Number of students whose IQ score is 140 is
(1) undeterminable from given data
(2) 2
(3) 1 (4) 0

5. The number of students whose IQ score is 100 and more is
(1) 29 (2) 35
(3) 36 (4) 46

6. In the following table year wise ratio of number of taxable and non-taxable products produced by a company has been shown. The total production of the company increases by 10% every year.

Year	Taxable : Non-Taxable
2010	5 : 3
2011	4 : 1
2012	2 : 3
2013	4 : 5
2014	5 : 4

Find the ratio of taxable products produced in year 2011 and 2012 and non-taxable products produced in years 2011 and 2012.
(1) 3 : 2 (2) 62 : 43
(3) 43 : 62 (4) 2 : 5

(SSC CPO Exam. 06.06.2016) (Ist Sitting)

SHORT ANSWERS

TYPE-I

1. (2)	**2.** (1)	**3.** (4)	**4.** (1)
5. (3)	**6.** (4)	**7.** (2)	**8.** (3)
9. (2)	**10.** (2)	**11.** (1)	**12.** (3)
13. (1)	**14.** (2)	**15.** (4)	**16.** (3)
17. (1)	**18.** (3)	**19.** (2)	**20.** (4)
21. (3)	**22.** (2)	**23.** (3)	**24.** (4)
25. (4)	**26.** (1)	**27.** (2)	**28.** (3)
29. (3)	**30.** (1)	**31.** (1)	**32.** (1)
33. (3)	**34.** (4)	**35.** (3)	**36.** (2)
37. (1)	**38.** (2)	**39.** (1)	**40.** (2)
41. (2)	**42.** (4)	**43.** (2)	**44.** (1)
45. (2)	**46.** (3)	**47.** (2)	**48.** (1)
49. (3)	**50.** (2)	**51.** (1)	**52.** (3)
53. (4)	**54.** (1)	**55.** (2)	**56.** (4)
57. (3)	**58.** (3)	**59.** (4)	**60.** (2)
61. (3)	**62.** (3)	**63.** (1)	**64.** (3)
65. (4)	**66.** (1)	**67.** (1)	**68.** (2)
69. (3)	**70.** (1)	**71.** (2)	**72.** (3)
73. (2)	**74.** (2)	**75.** (3)	**76.** (1)
77. (4)	**78.** (3)	**79.** (1)	**80.** (1)
81. (3)	**82.** (2)	**83.** (4)	**84.** (2)
85. (4)	**86.** (1)	**87.** (2)	**88.** (2)
89. (1)	**90.** (2)	**91.** (3)	**92.** (3)
93. (3)	**94.** (1)	**95.** (2)	**96.** (4)
97. (1)	**98.** (4)	**99.** (4)	**100.** (2)
101. (3)	**102.** (1)	**103.** (3)	**104.** (2)
105. (3)	**106.** (4)	**107.** (2)	**108.** (1)
109. (4)	**110.** (3)	**111.** (4)	**112.** (1)
113. (3)	**114.** (4)	**115.** (2)	**116.** (4)
117. (3)	**118.** (4)	**119.** (1)	**120.** (4)
121. (1)	**122.** (4)	**123.** (1)	**124.** (1)
125. (1)	**126.** (3)	**127.** (1)	**128.** (4)
129. (2)	**130.** (3)	**131.** (1)	**132.** (2)
133. (*)	**134.** (4)	**135.** (3)	**136.** (1)
137. (3)	**138.** (4)	**139.** (1)	**140.** (4)
141. (1)	**142.** (2)	**143.** (2)	**144.** (4)
145. (3)	**146.** (2)	**147.** (3)	**148.** (3)
149. (2)	**150.** (1)	**151.** (1)	**152.** (2)
153. (2)	**154.** (2)	**155.** (4)	**156.** (1)
157. (1)	**158.** (1)	**159.** (*)	**160.** (*)
161. (1)	**162.** (1)	**163.** (1)	**164.** (1)
165. (1)	**166.** (4)	**167.** (3)	**168.** (3)
169. (3)	**170.** (4)	**171.** (1)	**172.** (2)
173. (2)	**174.** (1)	**175.** (1)	**176.** (2)
177. (1)	**178.** (4)	**179.** (4)	**180.** (4)
181. (4)	**182.** (4)	**183.** (1)	**184.** (2)
185. (2)	**186.** (1)	**187.** (2)	**188.** (1)
189. (4)	**190.** (2)	**191.** (4)	**192.** (3)
193. (1)	**194.** (3)	**195.** (3)	**196.** (2)
197. (3)	**198.** (1)	**199.** (1)	**200.** (3)
201. (4)	**202.** (2)	**203.** (1)	**204.** (3)
205. (1)	**206.** (4)	**207.** (2)	**208.** (4)
209. (2)	**210.** (4)	**211.** (1)	**212.** (4)
213. (2)	**214.** (1)	**215.** (3)	**216.** (4)
217. (3)	**218.** (2)	**219.** (2)	**220.** (2)
221. (1)	**222.** (3)	**223.** (1)	**224.** (1)
225. (2)	**226.** (1)	**227.** (4)	**228.** (1)
229. (1)	**230.** (2)	**231.** (2)	**232.** (3)
233. (1)	**234.** (2)	**235.** (2)	**236.** (3)
237. (4)	**238.** (2)	**239.** (2)	**240.** (4)
241. (2)	**242.** (2)	**243.** (4)	**244.** (4)
245. (1)	**246.** (3)	**247.** (3)	**248.** (2)

249. (2)	**250.** (3)	**251.** (2)	**252.** (1)
253. (3)	**254.** (1)	**255.** (3)	**256.** (1)
257. (4)	**258.** (1)	**259.** (2)	**260.** (1)
261. (3)	**262.** (4)	**263.** (1)	**264.** (2)
265. (4)	**266.** (3)	**267.** (2)	**268.** (4)
269. (4)	**270.** (2)	**271.** (1)	**272.** (4)
273. (2)	**274.** (1)	**275.** (*)	**276.** (2)
277. (3)	**278.** (4)	**279.** (4)	**280.** (3)
281. (2)	**282.** (2)	**283.** (1)	**284.** (3)
285. (2)	**286.** (3)	**287.** (3)	**288.** (2)
289. (4)	**290.** (3)	**291.** (1)	**292.** (3)
293. (1)	**294.** (1)	**295.** (4)	**296.** (1)
297. (2)	**298.** (4)		

TYPE-II

1. (3)	**2.** (3)	**3.** (4)	**4.** (2)
5. (2)	**6.** (2)	**7.** (2)	**8.** (1)
9. (4)	**10.** (1)	**11.** (2)	**12.** (3)
13. (4)	**14.** (4)	**15.** (1)	**16.** (3)
17. (4)	**18.** (4)	**19.** (2)	**20.** (2)
21. (4)	**22.** (4)	**23.** (4)	**24.** (1)
25. (3)	**26.** (1)	**27.** (2)	**28.** (3)
29. (4)	**30.** (1)	**31.** (3)	**32.** (2)
33. (3)	**34.** (4)	**35.** (2)	**36.** (1)
37. (2)	**38.** (3)	**39.** (1)	**40.** (3)
41. (3)	**42.** (3)	**43.** (1)	**44.** (2)
45. (3)	**46.** (2)	**47.** (2)	**48.** (1)

TYPE-III

1. (4)	**2.** (2)	**3.** (3)	**4.** (3)
5. (1)	**6.** (3)	**7.** (1)	**8.** (4)
9. (2)	**10.** (2)	**11.** (1)	**12.** (4)
13. (2)	**14.** (1)	**15.** (2)	**16.** (4)
17. (3)	**18.** (2)	**19.** (3)	**20.** (1)
21. (1)	**22.** (3)	**23.** (2)	**24.** (3)
25. (3)	**26.** (4)	**27.** (3)	**28.** (1)
29. (3)	**30.** (2)	**31.** (2)	**32.** (3)
33. (4)	**34.** (1)	**35.** (3)	**36.** (2)
37. (3)	**38.** (1)	**39.** (4)	**40.** (4)
41. (1)	**42.** (2)	**43.** (1)	**44.** (2)
45. (2)	**46.** (4)	**47.** (2)	**48.** (3)
49. (4)	**50.** (2)	**51.** (1)	**52.** (2)
53. (2)	**54.** (2)	**55.** (2)	**56.** (4)
57. (3)	**58.** (3)	**59.** (4)	**60.** (3)
61. (2)	**62.** (3)	**63.** (2)	**64.** (4)
65. (3)	**66.** (1)	**67.** (3)	**68.** (4)
69. (3)	**70.** (3)	**71.** (2)	**72.** (2)
73. (4)	**74.** (4)	**75.** (3)	**76.** (3)
77. (1)	**78.** (3)	**79.** (4)	**80.** (4)
81. (2)	**82.** (3)	**83.** (2)	**84.** (3)
85. (2)	**86.** (3)	**87.** (2)	**88.** (4)
89. (2)	**90.** (2)	**91.** (3)	**92.** (1)
93. (1)	**94.** (1)	**95.** (2)	**96.** (2)
97. (2)	**98.** (4)	**99.** (1)	**100.** (2)
101. (2)	**102.** (3)	**103.** (4)	**104.** (1)
105. (4)	**106.** (4)	**107.** (4)	**108.** (3)
109. (3)	**110.** (4)	**111.** (1)	**112.** (3)
113. (3)	**114.** (2)	**115.** (4)	**116.** (3)
117. (4)	**118.** (2)	**119.** (1)	**120.** (3)
121. (2)	**122.** (3)	**213.** (3)	**124.** (2)
125. (3)	**126.** (2)	**127.** (3)	**128.** (1)
129. (1)	**130.** (2)	**131.** (1)	**132.** (3)
133. (4)	**134.** (4)	**135.** (4)	**136.** (4)
137. (2)	**138.** (2)	**139.** (1)	**140.** (4)

TYPE-IV

1. (4)	**2.** (3)	**3.** (4)	**4.** (1)
5. (2)	**6.** (2)	**7.** (3)	**8.** (4)
9. (2)	**10.** (3)	**11.** (4)	**12.** (1)
13. (2)	**14.** (3)	**15.** (4)	**16.** (4)
17. (1)	**18.** (2)	**19.** (1)	**20.** (3)
21. (3)	**22.** (1)	**23.** (4)	**24.** (1)
25. (2)	**26.** (3)	**27.** (2)	**28.** (1)
29. (4)	**30.** (1)	**31.** (3)	**32.** (1)
33. (3)	**34.** (1)	**35.** (1)	**36.** (3)
37. (4)	**38.** (2)	**39.** (2)	**40.** (3)
41. (4)	**42.** (1)	**43.** (3)	**44.** (1)
45. (4)	**46.** (1)	**47.** (3)	

TYPE-V

1. (2)	**2.** (1)	**3.** (3)	**4.** (3)
5. (4)	**6.** (1)	**7.** (2)	**8.** (3)
9. (2)	**10.** (3)	**11.** (1)	**12.** (3)
13. (4)	**14.** (1)	**15.** (4)	**16.** (3)
17. (3)	**18.** (2)	**19.** (4)	**20.** (3)
21. (1)	**22.** (2)	**23.** (1)	**24.** (3)
25. (1)	**26.** (1)	**27.** (1)	**28.** (3)
29. (4)	**30.** (1)	**31.** (3)	**32.** (1)
33. (3)	**34.** (2)	**35.** (4)	**36.** (3)
37. (3)	**38.** (2)	**39.** (1)	**40.** (1)
41. (3)	**42.** (2)	**43.** (1)	**44.** (1)
45. (2)	**46.** (4)	**47.** (1)	**48.** (1)
49. (4)	**50.** (3)	**51.** (4)	**52.** (1)
53. (2)	**54.** (4)	**55.** (1)	**56.** (2)
57. (4)	**58.** (1)	**59.** (2)	**60.** (1)
61. (3)	**62.** (2)	**63.** (2)	**64.** (4)
65. (3)	**66.** (4)	**67.** (3)	**68.** (2)
69. (4)	**70.** (4)	**71.** (3)	**72.** (2)
73. (3)	**74.** (1)	**75.** (4)	**76.** (4)
77. (1)	**78.** (1)	**79.** (1)	**80.** (4)
81. (1)	**82.** (2)	**83.** (2)	**84.** (2)
85. (2)	**86.** (3)	**87.** (4)	**88.** (3)
89. (3)	**90.** (2)	**91.** (4)	**92.** (3)
93. (1)	**94.** (2)	**95.** (2)	**96.** (2)
97. (1)	**98.** (3)	**99.** (4)	**100.** (1)
101. (2)	**102.** (*)	**103.** (2)	**104.** (4)
105. (1)	**106.** (3)	**107.** (3)	**108.** (2)
109. (3)	**110.** (4)	**111.** (2)	**112.** (4)
113. (1)	**114.** (4)	**115.** (3)	**116.** (2)
117. (2)	**118.** (1)	**119.** (2)	**120.** (3)
121. (4)	**122.** (2)	**123.** (2)	**124.** (3)
125. (2)	**126.** (1)	**127.** (3)	**128.** (4)
129. (4)	**130.** (1)	**131.** (1)	**132.** (1)
133. (4)	**134.** (2)	**135.** (3)	**136.** (1)
137. (1)	**138.** (3)	**139.** (2)	**140.** (1)
141. (2)	**142.** (2)	**143.** (3)	**144.** (4)
145. (3)	**146.** (2)	**147.** (3)	**148.** (2)
149. (3)	**150.** (1)	**151.** (2)	**152.** (2)
153. (3)	**154.** (4)	**155.** (3)	**156.** (4)
157. (1)	**158.** (3)	**159.** (4)	**160.** (3)
161. (1)	**162.** (*)	**163.** (1)	**164.** (3)
165. (*)	**166.** (3)	**167.** (1)	**168.** (4)
169. (3)	**170.** (1)	**171.** (4)	**172.** (2)
173. (1)	**174.** (3)	**175.** (*)	**176.** (4)
177. (*)	**178.** (2)	**179.** (1)	**180.** (2)
181. (3)	**182.** (*)	**183.** (*)	**184.** (1)
185. (1)	**186.** (*)	**187.** (2)	**188.** (1)
189. (4)	**190.** (2)	**191.** (3)	**192.** (2)
193. (2)	**194.** (1)	**195.** (1)	**196.** (4)
197. (2)	**198.** (1)	**199.** (2)	**200.** (3)
201. (3)	**202.** (4)	**203.** (3)	**204.** (4)
205. (4)	**206.** (2)	**207.** (4)	**208.** (1)
209. (2)	**210.** (2)	**211.** (3)	**212.** (4)
213. (3)	**214.** (4)	**215.** (3)	**216.** (1)
217. (2)	**218.** (1)	**219.** (4)	**220.** (2)
221. (2)	**222.** (3)	**223.** (3)	**224.** (4)
225. (2)	**226.** (1)	**227.** (1)	**228.** (2)
229. (3)	**230.** (1)	**231.** (3)	**232.** (*)
233. (2)	**234.** (2)	**235.** (3)	**236.** (*)
237. (4)	**238.** (3)	**239.** (3)	**240.** (4)
241. (1)	**242.** (*)		

TYPE-VI

1. (4)	**2.** (3)	**3.** (2)	**4.** (1)
5. (1)	**6.** (3)	**7.** (2)	**8.** (3)
9. (2)	**10.** (4)	**11.** (3)	**12.** (1)
13. (2)	**14.** (1)	**15.** (3)	**16.** (3)
17. (1)	**18.** (2)	**19.** (4)	**20.** (3)
21. (1)	**22.** (1)	**23.** (1)	**24.** (4)
25. (3)	**26.** (3)	**27.** (2)	**28.** (1)
29. (4)	**30.** (2)	**31.** (3)	**32.** (3)
33. (2)	**34.** (2)	**35.** (4)	**36.** (1)
37. (3)	**38.** (4)	**39.** (3)	**40.** (1)
41. (3)	**42.** (1)	**43.** (2)	**44.** (2)
45. (4)	**46.** (4)	**47.** (1)	**48.** (2)
49. (1)	**50.** (2)	**51.** (3)	**52.** (3)
53. (1)	**54.** (1)	**55.** (3)	**56.** (3)
57. (4)			

TYPE-VII

1. (3)	**2.** (4)	**3.** (2)	**4.** (4)
5. (3)	**6.** (3)	**7.** (4)	**8.** (4)
9. (1)	**10.** (2)	**11.** (4)	**12.** (2)
13. (1)	**14.** (1)	**15.** (2)	**16.** (1)
17. (3)	**18.** (2)	**19.** (3)	**20.** (2)
21. (1)	**22.** (4)	**23.** (1)	**24.** (4)
25. (4)	**26.** (2)	**27.** (2)	**28.** (3)
29. (2)	**30.** (1)	**31.** (4)	**32.** (3)
33. (2)	**34.** (3)	**35.** (2)	**36.** (4)
37. (2)	**38.** (1)	**39.** (3)	**40.** (2)
41. (2)	**42.** (4)	**43.** (3)	**44.** (2)
45. (2)	**46.** (3)	**47.** (1)	**48.** (1)
49. (1)	**50.** (2)	**51.** (2)	**52.** (4)
53. (3)	**54.** (2)	**55.** (1)	**56.** (4)
57. (3)	**58.** (2)	**59.** (2)	**60.** (4)
61. (4)	**62.** (3)	**63.** (2)	**64.** (1)
65. (2)	**66.** (3)	**67.** (1)	**68.** (4)
69. (3)	**70.** (2)	**71.** (2)	**72.** (4)
73. (4)	**74.** (2)	**75.** (1)	**76.** (1)
77. (2)	**78.** (2)	**79.** (2)	**80.** (2)
81. (1)	**82.** (1)	**83.** (2)	**84.** (1)
85. (2)	**86.** (3)	**87.** (4)	**88.** (2)
89. (3)	**90.** (3)	**91.** (4)	**92.** (4)
93. (1)	**94.** (3)	**95.** (2)	**96.** (2)
97. (2)	**98.** (3)	**99.** (2)	**100.** (1)
101. (2)	**102.** (1)	**103.** (1)	**104.** (2)
105. (4)	**106.** (4)	**107.** (4)	**108.** (1)
109. (2)	**110.** (4)		

TYPE-VIII

1. (4)	**2.** (3)	**3.** (3)	**4.** (1)
5. (2)	**6.** (2)		

EXPLANATIONS

TYPE-I

1. (2) Total amount spent
= ₹ 46,000
Amount spent on food
= 23% of 46,000

$$= \frac{23}{100} \times 46{,}000 = ₹\ 10580$$

2. (1) Total amount spent
= ₹ 46,000
Amount spent clothing and housing together
= (10% + 15%) of ₹ 46000

$$= \frac{25}{100} \times 46000 = ₹\ 11500$$

3. (4) $\frac{\text{Expenditure on Housing}}{\text{Expenditure on Education}}$

$$= \frac{15\%}{12\%} = \frac{15}{12} = \frac{5}{4} = 5:4$$

4. (1) Maximum expenditure is 23% and it is on Food.

5. (3) Total expenditure
= ₹ 46,000
Amount saved
= 15% of ₹ 46000

$$= \frac{15}{100} \times ₹\ 46000 = ₹\ 6900$$

6. (4) 100% = 360°

$$\therefore\ 1\% = \frac{360°}{100}$$

$$\therefore\ 10\% = \frac{360° \times 10}{100} = 36°$$

7. (2) 35% total cost = ₹ 17500
∴ 15% of total cost

$$= ₹\ \frac{17500 \times 15}{35} = ₹\ 7500$$

8. (3) Difference in per cent cost of 'binding and cutting charges' and 'royalty'
= (18 – 15)% = 3%
Now, ∵ 4% of total cost
= ₹ 6000
∴ 3% of total cost

$$= ₹\ \frac{6000 \times 3}{4} = ₹\ 4500$$

9. (2) Difference in per cent expenses on printing cost and advertisement charges
= (35 – 18)% = 17%
Now, 1 % = 3.6°
∴ 17% = 3.6° × 17 = 61.2°

10. (2) The required per cent

$$= \frac{10 \times 100}{35} = 28.6\%\ (\text{approx.})$$

11. (1) Maximum expenditure of the family is on food, i.e., 23%.

12. (3) ∵ Expenditure on housing
= Savings = 15%

13. (1) % Expenditure on transport and other items = (20 + 5)%
= 25%

14. (2) Expenditure on the education of children
= 12% of ₹ 100000

$$= ₹\ \frac{12 \times 100000}{100}$$

= ₹ 12000

15. (4) The percentage difference in expenditure on housing and transport = (15 – 5)% = 10%
The required difference
= 10% of ₹ 100000
= ₹ 10000

16. (3) House rent per month

= 18% of ₹ 33650

$$= ₹\ \frac{18 \times 33650}{100} = ₹\ 6057$$

17. (1) Annual provident fund savings
= 12% of (₹ 33650 × 12)

$$= ₹\ \frac{12 \times 33650 \times 12}{100} = ₹\ 48456$$

18. (3) Remaining monthly income
= [100 – (12 + 18)]% of ₹ 33650

$$= ₹\ \frac{70 \times 33650}{100} = ₹\ 23555$$

19. (2) Amount spent on food and entertainment together
= 34% of ₹ 33650

$= ₹ \frac{34 \times 33650}{100} = ₹ 11441$

20. (4) Expenditure on children = 23%
Provident fund savings
= 12%
For no children, total savings = 35%
∴ Required savings
= 35% of ₹ 33650

$= ₹ \frac{35 \times 33650}{100} = ₹ 11777.50$

21. (3) Amount spent on cement

$= \left(\frac{100}{360} \times 72\right)\%$ of 600000

$= \frac{20}{100} \times 600000 = ₹ 1,20,000$

22. (2) Difference (%)

$= \left(\frac{100}{360} \times 90\right)\% - \left(\frac{100}{360} \times 54\right)\%$

= 25% – 15%
= 10% of the total cost

23. (3) Required per cent

$= \frac{100}{360^\circ} \times (72^\circ + 54^\circ + 54^\circ)$

$= \frac{100}{360^\circ} \times 180^\circ = 50$ per cent

24. (4) Differences in percentage

$= \left(\frac{100}{360^\circ} \times 90^\circ\right) - \left(\frac{100}{360^\circ} \times 54^\circ\right)\%$

∴ Required difference

$= 600000 \times \frac{10}{100} = ₹ 60,000$

25. (4) Corresponding angle of labour = 90°

Clearly, $90^\circ \equiv \frac{1500000 \times 90}{360}$

= ₹ 375000

26. (1) Corresponding angle on the expenditure on bricks, steel and cement
= 54 + 54 + 72 = 180°
∵ 360° ≡ 100%

$\therefore 180^\circ \equiv \frac{100}{360} \times 180 = 50\%$

27. (2) Required percentage

$= \frac{36}{72} \times 100 = 50\%$

28. (3) Corresponding angle of labour and supervision combined
= 90° + 54° = 144°
∵ 360° ≡ 1500000

$\therefore 144^\circ \equiv \frac{1500000}{360} \times 144$

= ₹ 600000

29. (3) Yasin got the minimum votes.
∵ 360° ≡ 720

$\therefore 60^\circ \equiv \frac{720}{360} \times 60 = 120$

30. (1) Sivaraman got the maximum votes. i.e.

$\frac{720}{360} \times 120 = 240$ votes

∴ He was the winner.

31. (1) Angle of the difference of votes of the winner and the nearest rival = 120 – 100 = 20°
∵ 360° ≡ 720

$\therefore 20^\circ \equiv \frac{720}{360} \times 20 = 40$

32. (1) ∵ 45° ≡ ₹ 9000
Angle of diff. of money spent of Hockey and Football = 55°

$\therefore 55^\circ \equiv \frac{9000}{45^\circ} \times 55^\circ = ₹ 11000$

33. (3) ∵ 45° ≡ ₹ 9000

$\therefore 160^\circ \equiv \frac{9000}{45^\circ} \times 160^\circ = ₹ 32000$

34. (4) ∵ 45° ≡ ₹ 9000

$\therefore 360^\circ \equiv \frac{9000}{45} \times 360^\circ = ₹ 72000$

35. (3) ∵ 32% ≡ 800000

$\therefore 3\% \equiv \frac{800000}{32} \times 3 = 75000$

36. (2) Required percentage

$= \frac{3}{25} \times 100 = 12\%$

37. (1) Required ratio = 3 : 7 (clear from the chart)

38. (2) ∵ 100% ≡ ₹ 25000
Total % spent on food and rent
= (45 + 14)%

$\therefore 59\% \equiv \frac{25000}{100} \times 59 = ₹ 14750$

39. (1) Required ratio = 15 : 45
= 1 : 3

40. (2) Required percentage

$= \frac{14}{9} \times 100 \approx 156\%$

41. (2) ∵ 360° ≡ 100%

$\therefore 108^\circ \equiv \frac{100}{360} \times 108 = 30\%$

Fuel + Education + Others
= 9 + 15 + 6 = 30%

42. (4) ∵ 540 ≡ 360°

$\therefore 105 \equiv \frac{360}{540} \times 105 = 70^\circ$

Hence, the student obtained 105 marks in Hindi

43. (2) Corresponding angle for science
= 360° – (90° + 65° + 55° + 70°)
= (360° – 280°) = 80°

44. (1) Difference of corresponding angles = 90° – 70° = 20°
∵ 360° ≡ 540

$\therefore 20^\circ \equiv \frac{540}{360} \times 20 = 30$

45. (2) Corresponding angle for science = 80°
∵ 360° ≡ 540

$\therefore 80^\circ \equiv \frac{540}{360} \times 80 = 120$

46. (3) ∵ 60° ≡ ₹ 8000
∴ Expenditure on Education

$= 30 \times \frac{8000}{60} = ₹ 4,000$

47. (2) Ratio of degree of expenditure on food to savings = 120° : 60°
= 2 : 1

48. (1) Total expenditure

$= \frac{8000}{60} \times (105 + 120 + 45 + 30)$

$= \frac{8000}{60} \times 300$

= ₹ 40000

49. (3) Difference in degree of amount spent on food & housing = (120 – 105) = 15° $= \frac{8000}{60} \times 15^\circ = ₹ 2000$

50. (2) ∵ 35% ≡ 17500

$\therefore 15\% \equiv \frac{17500}{35} \times 15 = ₹ 7500$

51. (1) ∵ 100% ≡ 360°

$\therefore 35\% \equiv \frac{360}{100} \times 35 = 126^\circ$

52. (3) Required percentage

$= \frac{4}{10} \times 100 = 40\%$

53. (4) Central angle for binding charges

$= \frac{360}{100} \times 18 = 64.8°$

Central angle for advertisement charges

$= \frac{360}{100} \times 18 = 64.8°$

$\therefore$ Required difference = 0°

Method 2 :

Percentage value for both is same. Therefore, difference between angles is same.

54. (1) Required ratio = 120° : 90°
= 4 : 3

55. (2) $\because$ 360° $\equiv$ 100%

$\therefore$ $1° \equiv \frac{100}{360}$

$\therefore$ $90° \equiv \frac{100}{360} \times 90$ = 25%

56. (4) $\because$ 360° $\equiv$ 7200 acres

$\therefore$ $1° \equiv \frac{7200}{360}$ = 20 acres

$\therefore$ 70° $\equiv$ 70 × 20 = 1400 acres

57. (3) Required percentage

$= \frac{20}{60} \times 100 = \frac{100}{3} = 33\frac{1}{3}\%$

58. (3) Difference in percentage
= (68 – 32)% = (36)%

$\therefore$ Required answer

$= \frac{36 \times 500}{100} = 180$

59. (4) $\because$ 100% $\equiv$ 360°

$\therefore$ $30\% \equiv \frac{360}{100} \times 30 = 108°$

60. (2) Percentage of failure in Maths, Language and Science = 30 + 36 + 32 = 98%

$\therefore$ Required no. of students

$= \frac{500 \times 98}{100} = 490$

61. (3) Required answer

$= \frac{500 \times 6}{100} = 30$

62. (3) Required percentage
= 30 + 36 = 66%

63. (1) Students enrolled in NCC activities

$= \frac{1200 \times 15}{100} = 180$

64. (3) Total students in HRD & Debating club

$= 1200 \times \frac{(13+11)}{100} = 288$

65. (4) Required per cent

$= \frac{22}{21} \times 100 = 104.76\%$

66. (1) Required ratio
= (18 + 21) : 13
= 39 : 13 = 3 : 1

67. (1) Eco-club: Human resource development club
= 22 : 11 = 2 : 1

68. (2) Required ratio = 144 : 72
= 2 : 1

69. (3) Required difference

$= (144 - 72) \times \frac{600}{360}$

$= \frac{72 \times 600}{360} = 120$

70. (1) $\because$ 360° $\equiv$ 100%

$\therefore$ $54° \equiv \frac{100}{360} \times 54 = 15\%$

71. (2) Required difference

$= (90 - 54) \times \frac{600}{360}$

$= \frac{36 \times 600}{360} = 60$

72. (3) $\because$ 360° = 100%

$\therefore$ $144° = \frac{100}{360} \times 144 = 40\%$

73. (2) Percentage of crop B exported

$= \frac{72}{360} \times 100 = 20\%$

74. (2) $\because$ 45° = 1.5 million quintals

$\therefore$ $360° = \frac{1.5 \times 360}{45} = 12$ million quintals

75. (3) A + B + C = 72° + 72° + 36° = 180°

76. (1) $\because$ 45° = 1.5 million quintals

$\therefore$ $36° = \frac{1.5 \times 36}{45}$

= 1.2 million quintals

77. (4) A : C = 3 × 72° : 36°
= 6 : 1

78. (3) Required ratio = $30 : \frac{25}{2}$

= 60 : 25 = 12 : 5

79. (1) Expenditure on clothes

$= 50000 \times \frac{25}{200}$ = ₹ 6250

80. (1) Expenditure on the study of children and food

$= 35000 \times \frac{55}{100}$ = ₹ 19250

81. (3) $\because$ 100% $\equiv$ 360°

$\therefore$ $10\% \equiv \frac{360}{100} \times 10 = 36°$

82. (2) $\because$ $\left(\frac{25}{2} - 10\right)\% \equiv$ ₹ 1500

$\Rightarrow \frac{5}{2}\% \equiv$ ₹1500

$\therefore$ $10\% \equiv 1500 \times \frac{2}{5} \times 10$

= ₹ 6000

83. (4) $\because$ 100% $\equiv$ 360°

$\therefore$ $15\% \equiv \frac{360}{100} \times 15 = 54°$

84. (2) $\because$ 55% $\equiv$ ₹ 110

$\therefore$ $100\% \equiv \frac{110}{55} \times 100$ = ₹ 200

85. (4) $\because$ 100% $\equiv$ ₹ 200

$\therefore$ $25\% \equiv \frac{200}{100} \times 25$ = ₹ 50

86. (1) $\because$ 360% $\equiv$ 100%

$\therefore$ $108° \equiv \frac{100}{360} \times 108$ = 30%

i.e. Paper + Miscellaneous (A + D)

87. (2) Average expenditure percentage = 20%
Expenditure on Printing + Binding is more than average expenditure.

88. (2) Corresponding angle of average expenditure

$= \frac{360°}{5}$ = 72° $\equiv$ cement

89. (1) Required ratio
= 36 : 72 : 54
= 2 : 4 : 3

90. (2) $\because$ 360° $\equiv$ 100%

$\therefore$ $108° \equiv \frac{100}{360} \times 108 = 30\%$

91. (3) $\because$ 360° $\equiv$ 1

$\therefore$ $90° \equiv \frac{90}{360} = \frac{1}{4}$

92. (3) Required percent

$= \frac{36+54}{360} \times 100 = 25\%$

93. (3) People who prefer flute

$= 60000 \times \frac{11}{100} = 6600$

New number of people who prefer flute

$= 6600 - 2100 = 4500$

$\therefore$ New percentage

$= \frac{4500}{60000} \times 100 = 7.5\%$

94. (1) Difference of percentage

$= 22 + 14 - 20 - 14 = 2\%$

$\therefore$ Required answer

$= 60000 \times \frac{2}{100} = 1200$

95. (2) People who prefer Sarod

$= \frac{60000 \times 14}{100} = 8400$

96. (4) People who prefer Piano

$= 60000 \times \frac{9}{100} = 5400$

$\therefore$ New number of people who prefer flute

$= 6600 + 5400 \times \frac{50}{300}$

$= 6600 + 900 = 7500$

$\therefore$ Required percentage

$= \frac{7500 \times 100}{60000}$

$= 12.5\%$

97. (1) Required no. of people

$= (22 - 11 - 9)\%$ of 60000

$= \frac{60000 \times 2}{100} = 1200$

98. (4) $\because$ $100\% \equiv 360^\circ$

$\therefore 16\% \equiv \frac{360}{100} \times 16 = 57.6^\circ$

99. (4) Percentage decrease

$= \frac{18-15}{18} \times 100$

$= \frac{50}{3} = 16\frac{2}{3}\%$

100. (2) $\because$ $4\% \equiv ₹\ 1848$

$\therefore 100\% \equiv ₹ \frac{1848}{4} \times 100$

$= ₹\ 46200$

$\therefore$ C.P. of each book $= \frac{46200}{5500}$

$= ₹\ 8.4$

$\therefore$ Marked price of each copy

$= \frac{8.4 \times 125}{100} = ₹\ 10.50$

101. (3) $\because$ $35\% \equiv ₹\ 17500$

$\therefore 15\% \equiv ₹ \frac{17500}{35} \times 15 = ₹\ 7500$

102. (1) $\because$ $4\% \equiv ₹\ 6000$

$\therefore 18\% \equiv \frac{6000}{4} \times 18 = ₹\ 27000$

103. (3) Number of students who come to school by car.

$= \frac{70}{360} \times 2160 = 420$

104. (2) Car : Bus $= 70^\circ : 90^\circ$

$= 7 : 9$ or $21 : 27$

105. (3) No. of students coming by (bus + walking)

$= \frac{80+90}{360} \times 2160 = 1020$

106. (4) No. of students do not come by train

$= \frac{360-120}{360} \times 2160 = 1440$

107. (2) (Bus – Walking)%

$= \frac{90-80}{80} \times 100 = 12.5\%$

108. (1) Difference between the students of commerce and science $= 200$

[$\because$ $100^\circ \equiv 1000$

$\therefore 1^\circ \equiv 10$

$\therefore 20^\circ \equiv 200$]

109. (4) Required ratio

$= 100 : 120$

$= 5 : 6$

110. (3) $\because$ $100^\circ \equiv 1000$

$\therefore 360^\circ \equiv \frac{1000}{100} \times 360 = 3600$

111. (4) Expenditure on education in April

$= 24000 \times \frac{47}{100} = ₹\ 11280$

Expenditure on education in May

$= \frac{25000 \times 50}{100} = ₹\ 12500$

Percentage increase

$= \frac{12500 - 11280}{11280} \times 100$

$= 10.82\%$

112. (1) Required ratio

$= \frac{24000 \times 18}{100} : \frac{25000 \times 2}{100}$

$= 24 \times 18 : 25 \times 2$

$= 216 : 25$

113. (3) Expenditure on grocery

$= \frac{25000 \times 14}{100} = ₹\ 3500$

Expenditure on electricity

$= \frac{25000 \times 9}{100} = ₹\ 2250$

114. (4) Required average

$= \frac{1}{3} \times 24000 \times (47 + 4 + 18)\%$

$= \frac{1}{3} \times \frac{24000 \times 69}{100} = ₹\ 5520$

115. (2) $\because$ $(81 + 63)^\circ \equiv 80000$

$\therefore 360^\circ \equiv \frac{80000}{144^\circ} \times 360^\circ$

$= ₹\ 200000$

116. (4) Required percentage

$= \frac{63-36}{36} \times 100 = 75\%$

117. (3) Required percentage

$= \frac{81-54}{81} \times 100$

$= \frac{27}{81} \times 100 = 33\frac{1}{3}\%$

118. (4) Expenditure on agriculture sector $= \frac{72^\circ}{360} \times 1000$

$= ₹\ 200$ crores

119. (1) $\because 360^\circ \equiv ₹\ 96000$

$\therefore 115.2^\circ \equiv \frac{96000}{360^\circ} \times 115.2$

$= ₹\ 30720$

120. (4) Difference of respective angles
$= 144° - 43.2°$
$= 100.8°$
$\therefore$ Required difference
$= \frac{96000}{360°} \times 100.8° = ₹\ 26880$

121. (1) Difference of corresponding angles :
Physics and Chemistry
$= 85 - 70 = 15°$
Chemistry and social science
$= 70 - 55 = 15°$

122. (4) Sum of corresponding angles of Maths and Chemistry
$= 90 + 70 = 160°$
Sum of corresponding angles of Physics and Social Science
$= 85 + 55 = 140°$
Difference $= 20°$
$\because\ 360° \equiv 810$
$\therefore\ 20° \equiv \frac{810}{360} \times 20 = 45$

123. (1) $\because\ 360° \equiv 810$
$\therefore\ 1° \equiv \frac{810}{360} = \frac{9}{4}$
$\therefore\ 60° \equiv \frac{9}{4} \times 60 = 135$

124. (1) English + Physics + Social Science $= 200°$
Maths + Chemistry $= 160°$
Required percentage
$= \frac{40}{360} \times 100 = \frac{100}{9}\%$ or $11\frac{1}{9}\%$

125. (1) $\because\ 360° \equiv 9000$ tonnes
$\therefore\ 110° \equiv \frac{9000 \times 110}{360}$
$= 2750$ tonnes

126. (3) C.P. $= \frac{180 \times 100}{120} = ₹\ 150$
$\therefore$ Cost of paper $= \frac{150 \times 15}{100}$
$= ₹\ 22.50$

127. (1) Required percentage
$= \frac{20 - 15}{20} \times 100 = 25\%$

128. (4) Expenses on food
$= 40000 \times \frac{17}{100} = ₹\ 6800$

129. (2) Expenses on clothes
$= 48000 \times \frac{30}{100} \times \frac{10}{100}$
$= ₹\ 1440$

130. (3) Savings per month $= 8\%$
$\therefore$ Required savings
$= \frac{48000 \times 8}{100} = ₹\ 3840$

131. (1) Difference of percentage
$= 25 - (5 + 15) = 5\%$
$\therefore$ Required difference
$= \frac{48000 \times 5}{100} = ₹\ 2400$

132. (2) $\because\ 360° \equiv 100\%$
$\therefore\ 108° \equiv \frac{100}{360} \times 108 = 30\%$

133. (*) Expenditure on labourers :
Year 1991 $\Rightarrow \frac{360000 \times 90}{360}$
$= ₹\ 90000$
Year 2001 $\Rightarrow \frac{864000 \times 100}{360}$
$= ₹\ 240000$
Percentage increase
$= \frac{240000 - 90000}{90000} \times 100$
$= \frac{1500}{9} = 166.7\%$

134. (4) Expenditure on steel :
Year 1991 $\Rightarrow \frac{360000}{360} \times 50$
$= ₹\ 50000$
Year 2001 $\Rightarrow \frac{864000}{360} \times 60$
$= ₹\ 144000$

135. (3) Two wheelers : cars
$= 15 : 21$
$= 5 : 7$

136. (1) Required difference
$= (36 - 21)\%$ of 1400
$= \frac{1400 \times 15}{100} = 210$

137. (3) Number of Metro rail users
$= \frac{1400 \times 8}{100} = 112$

138. (4) Number of car users
$\Rightarrow \frac{1400 \times 21}{100} = 294$

139. (1) Food + Rent + Clothing + Miscellaneous
$\Rightarrow 108° + 90° + 36° + 72°$
$= 306°$
$\therefore$ Savings $\Rightarrow 360° - 306° = 54°$.

140. (4) Expenditure of food $= 25\%$
Savings $= 15\%$
$\because\ 15\% \equiv ₹\ 3000$
$\therefore\ 25\% \equiv \frac{3000}{15} \times 25 = ₹\ 5000$

141. (1) Number of employees in HR department
$= \frac{800 \times 5}{100} = 40$

142. (2) Number of employees in Marketing department
$= \frac{800 \times 24}{100} = 192$
$\therefore$ Required percentage
$= \frac{165}{192} \times 100 = 86$

143. (2) Number of employees in IT department
$= \frac{800 \times 20}{100} = 160$
Number of females
$= 160 - 74 = 86$
$\therefore$ Required percentage
$= \frac{86}{800} \times 100$
$= 10.75$

144. (4) Total employees in Marketing department $= 192$
Males $= 165$
Females $= 192 - 165 = 27$
$\therefore$ Required ratio $= 165 : 27$
$= 55 : 9$

145. (3) $\because\ 30\% \equiv$ Rs. 9000
$\therefore\ 1\% \equiv \frac{9000}{30}$
$\therefore\ 18\% \equiv \frac{9000 \times 18}{30}$
$=$ Rs. 5400

146. (2) $\because\ 100\% \equiv 360°$
$\therefore\ 1\% \equiv \frac{360}{100}$
$\therefore\ 15\% \equiv \frac{360}{100} \times 15 = 54°$

147. (3) Percentage expenditure on house rent + education
= 38%
Remaining expenses
= 100 – 38 = 62%
$\because$ 15% ≡ Rs. 3000

$\therefore$ 62% ≡ $\frac{3000}{15} \times 62$

= Rs. 12400

148. (3) 30% = x% of (12 + 18 + 15)%

$\Rightarrow 30 = \frac{x \times 45}{100}$

$\Rightarrow x = \frac{30 \times 100}{45} = \frac{200}{3}$

$= 66\frac{2}{3}\%$

149. (2) House rent + clothing + fuel
$\Rightarrow$ 20 + 12 + 15 = 47%
Food $\Rightarrow$ 30%
Difference = 47 – 30 = 17%

150. (1) Corresponding angle for children who go on walking
= 360 – 120 – 72 – 24 = 144°

151. (1) Corresponding angle for children using scooter = 72°
$\because$ 360° ≡100%

$\therefore 72° \equiv \frac{100}{360} \times 72 = 20\%$

152. (2) $\because$ 24° ≡ 10 students

$\therefore$ 120° ≡ $\frac{10}{24} \times 120°$

= 50 students

153. (2) $\because$ 144° ≡ 180 students

$\therefore$ 360° ≡ $\frac{180}{144} \times 360$

= 450 students

154. (2) Corresponding angle to the number of students who travel by public bus = 54°
$\because$ 360° ≡ 800

$\therefore$ 54° ≡ $\frac{800}{360} \times 54° = 120$

155. (4) Corresponding angle to number of students who do not use institute bus
= 360° – 216° = 144°
$\because$ 360° ≡ 800

$\therefore$ 144° ≡ $\frac{800}{360} \times 144 = 320$

156. (1) Corresponding angle to the number of students who go to institute on foot
= 360° – (216° + 54° + 18°)
= 72°
$\therefore$ Required answer

= $\frac{72 \times 800}{360} = 160$

157. (1) $\because$ 100% ≡ 360°

$\therefore$ 10% ≡ $\frac{360}{100} \times 10 = 36°$

$\therefore$ Corresponding angle for expenditure on health and education
≡ 36 + 54 = 90°
$\because$ 360° ≡ Rs. 100000 crores

$\therefore$ 90° ≡ $\frac{100000}{360} \times 90°$

= Rs. 25000 crores

158. (1) Expenditure on state development ⇒ 15%
$\because$ 100% ≡ 360°

$\therefore$ 15% ≡ $\frac{360}{100} \times 15 = 54°$

$\therefore$ Expenditure on (state development – sports)
= 54° – 18° = 36°
$\therefore$ Required amount

= Rs. $\left(\frac{36}{360} \times 300000\right)$ crores

= Rs. 30000 crores

159. (*) Expenditure on defence
≡ 15% ≡ 54°
$\therefore$ Required per cent

= $\frac{54 - 36}{54} \times 100 = \frac{100}{3}\%$

160. (*) Expenditure on others
= 30% = 108°
Required per cent

= $\frac{108 - 18}{18} \times 100$

= $\frac{90}{18} \times 100 = 500\%$

161. (1)
Expenditure on health ≡ 54°
$\because$ 360° ≡ 100%

$\therefore 54° \equiv \frac{100}{360} \times 54 = 15\%$

162. (1) Number of A–type employees in the year 1998

$\Rightarrow \frac{48640 \times 22}{100} \approx 10700$

Number of C and D-type employees in the year 1997

$\Rightarrow \frac{42980 \times 25}{100}$

= 10745

163. (1) It is obvious from the pie–chart.
Percentage increase

= $\frac{10 - 6}{6} \times 100$

= $\frac{200}{3} \approx 67\%$

164. (1) Required difference

= $\frac{48640 \times 10}{100} - \frac{42980 \times 6}{100}$

= 4864 – 2579 = 2285

165. (1) Required per cent

= $\frac{5000}{48640} \times 100 \approx 10$

166. (4) Number of A–type employees : Year 1997

$\Rightarrow \frac{42980 \times 20}{100} = 8596$

Year 1998 $\Rightarrow$ 10700
$\therefore$ Required percent

= $\frac{10700}{8596} \times 100 \approx 125$

167. (3) If the amount permitted be Rs. x then,

$x \times \frac{100}{110} = 4910$

$\Rightarrow x = \frac{4910 \times 110}{100}$

= Rs. 5401 crores

168. (3) Difference
= Rs. (11486 – 9695) crores
= Rs. 1791 crores
If increase be x%, then

$29952 \times \frac{x}{100} = 1791$

$\Rightarrow x = \frac{179100}{29952} \approx 6\%$

169. (3) Total funds = Rs. (11486 + 5252 + 4910 + 6000 + 29952) crores

= Rs. 57600 crores

$\because$ 57600 $\equiv 360°$

$\therefore 29952 \equiv \frac{360}{57600} \times 29952$

$= 187.2°$

170. (4) Expenditure on food : savings = 120° : 60° = 2 : 1

171. (1) $\because$ 70° – 54° $\equiv$ Rs. 1600

$\because$ 16° $\equiv$ Rs. 1600

$\therefore 1° \equiv \frac{1600}{16}$ = Rs. 100

$\therefore 120° \equiv 120 \times 100$

= Rs. 12000

172. (2) $\because$ 360° $\equiv$ Rs. 36000

$\therefore 1° \equiv \frac{36000}{360}$ = Rs. 100

$\therefore 60° \equiv 60 \times 100$ = Rs. 6000

$\therefore$ Annual savings

= Rs. (6000 × 12)

= Rs. 72000

173. (2) According to the question,

$\because$ Market tax $\equiv$ Rs. 165 crores

$\therefore$ 33% $\equiv$ Rs. 165 crores

$\therefore$ 100 – 33 = 67% $\equiv \frac{165 \times 67}{33}$

= Rs. 335 crores

174. (1) $\because$ 100% $\equiv$ Rs. 733 crores

$\therefore$ 35 + 10 = 45% $\equiv \frac{733}{100} \times 45$

= Rs. 329.85 crores

175. (1) $\because$ 100% $\equiv 360°$

$\therefore 1\% \equiv \frac{360°}{100}$

$\therefore 35\% \equiv \frac{360°}{100} \times 35 = 126°$

176. (2) $\because$ 360° $\equiv$ Rs. 40000 crores

$\therefore 1° \equiv \frac{40000}{360}$

$\therefore 72° \equiv \frac{72 \times 40000}{360}$

= Rs. 8000 crores

177. (1) According to the question,

Outlay on agriculture $\times \frac{x}{100}$ = Outlay of irrigation

$\Rightarrow 108° \times \frac{x}{100} = 54°$

$\Rightarrow x = \frac{54 \times 100}{108} = 50\%$

178. (4) Required ratio = 54 : 45 = 6 : 5

179. (4) Maximum angle = 120°

$\Rightarrow$ company V

180. (4) Required difference

$= \text{Rs.}\left[\left(\frac{120°-100°}{360}\right) \times 72\right]$ crores

= Rs. 4 crores

181. (4) Corresponding angle of expenditure on library = 60°

$\therefore$ Required percent

$= \frac{60}{360} \times 100$

$= \frac{50}{3} = 16.67\%$

182. (4) $\because$ 100% $\equiv 360°$

$\therefore 1\% \equiv \frac{360}{100}$

$\therefore 25\% \equiv \frac{360}{100} \times 25 = 90°$

$\Rightarrow$ Art and craft

183. (1) Corresponding angle of expense on library = 60°

Corresponding angle of expense on science = 60°

184. (2) Corresponding angle of expense on sports = 120°.

185. (2) Required ratio = 120° : 90° = 4 : 3

186. (1) Required percent

= (100 – 75 – 15 – 5)%

= 5%

187. (2) Non–members = 40 = 5%

= Members of cricket club only.

188. (1) Required ratio

= 5 : 15 = 1 : 3

189. (4) $\because$ 5% $\equiv$ 40

$\therefore 75\% \equiv \frac{40}{5} \times 75$

= 600

190. (2) Corresponding angle for conveyance = 90°

$\because$ 360° $\equiv$ Rs. 60000

$\therefore 90° \equiv \frac{60000}{360} \times 90$

= Rs. 15000

191. (4) Corresponding angle for expenditure on electricity = 72°

$\because$ 360° $\equiv$ 100%

$\therefore 72° \equiv \frac{100}{360} \times 72 = 20\%$

192. (3) Corresponding angle for overhead expenses = 108°

$\because$ 360° $\equiv$ Rs. 60000

$\therefore 108° \equiv \frac{60000}{360} \times 108$

= Rs. 18000

193. (1) Corresponding angle for raw materials = 90°

$\because$ 360° $\equiv$ 100%

$\therefore 90° \equiv \frac{100}{360} \times 90 = 25\%$

194. (3) Required percent

$= \left(\frac{20-15}{20} \times 100\right)\%$

$= \left(\frac{5}{20} \times 100\right)\% = 25\%$

195. (3) Percentage expense on royalty = 15%

$\because$ 100% $\equiv 360°$

$\therefore 15\% \equiv \frac{360}{100} \times 15 = 54°$

196. (2) Transportation cost = 10%

$\because$ 10% $\equiv$ Rs. 82500

$\therefore$ 100% $\equiv$ Rs. 825000

$\therefore$ Cost for publishing 1 book = $\frac{825000}{5500}$ = Rs. 150

For a profit of 25%,

$\therefore$ Required S.P. = $\frac{150 \times 125}{100}$

= Rs. 187.50

197. (3) Percentage of printing cost = 20%

Percentage of Royalty cost = 15%

$\because$ 20% $\equiv$ Rs. 30600

$\therefore 15\% \equiv \frac{30600}{20} \times 15$

= Rs. 22950

198. (1) Total amount of expenditure is not given.

199. (1) Required percent

$= \frac{30}{120} \times 100$

$= 25\%$

200. (3) Required ratio = 150° : 30°

= 5 : 1

201. (4) Corresponding angle for expense on food = 150°

$\because 360° \equiv$ Rs. 7200

$\therefore 150° \equiv$ Rs. $\left(\frac{7200}{360} \times 150\right)$

= Rs. 3000

202. (2) Expenditure on clothes

= Rs. 825

$\because 36° \equiv$ Rs. 825

$\therefore 360° \equiv \frac{825}{36} \times 360$

= Rs. 8250

203. (1) Corresponding angle for savings = 54°

$\because 360° \equiv 100\%$

$\therefore 54° \equiv \frac{100}{360} \times 54 = 15\%$

204. (3) Required ratio = 108 : 72

= 3 : 2

205. (1) Total expenditure

= Rs. 8250

Expenditure on clothes and rent

$= \frac{8250 \times (36° + 90°)}{360°}$

$= \frac{8250 \times 126}{360}$ = Rs. 2887.5

$\therefore$ Average expenditure

$= \frac{2887.5}{2}$ = Rs. 1443.75

206. (4) Required ratio

$= \frac{108 + 36 + 72}{3} : \frac{54 + 90}{2}$

$= \frac{216}{3} : \frac{144}{2} = 72 : 72 = 1 : 1$

207. (2) United States $\Rightarrow$ \$1.2 million doller

South Africa $\Rightarrow$ \$888.8 million doller

Mexico $\Rightarrow$ \$1 billion

United Kingdom

$\Rightarrow$ \$637.4 million

Sri Lanka $\Rightarrow$ \$596.9 million

208. (4) Exports to United states

= 8.40%

Exports to United Kingdom and Turkey

= (4.4 + 4)% = 8.4%

209. (2) Third largest importer $\Rightarrow$ South Africa

Seventh largest importer $\Rightarrow$ Turkey

Required difference

= \$ (888.8 – 580.4) million

= \$ 308.4 million

210. (4) Required average

$= \frac{433.6 + 592.1 + 596.9}{3}$

$= \frac{1622.6}{3}$

= \$540.8 million

211. (1) $\because 100\% \equiv 360°$

$\therefore 4\% \equiv \frac{360 \times 4}{100} = 14.4°$

212. (4) Time spent in studying history and chemistry

$= 4\frac{1}{2}$ hours.

Their corresponding percentage = (15 + 15)% = 30%

$\because 30\% \equiv \frac{9}{2}$ hours

$\therefore 20\% \equiv \frac{9 \times 20}{2 \times 30} = 3$ hours

213. (2) $\because 15\% \equiv 3$ hours

$\therefore 10\% \equiv \frac{3}{15} \times 10 = 2$ hours

214. (1) $\because 100\% \equiv 10$ hours

$\therefore 30\% \equiv \frac{10}{100} \times 30 = 3$ hours

215. (3) Usual time spent in studying Maths

$= \frac{20}{100} \times 30 = 6$ hours

Usual time spent in studying other subjects

$= \frac{10}{100} \times 20 = 2$ hours

New time spent in studying other subjects

$= \frac{15 \times 20}{100} = 3$ hours

Difference = 6 – 1 = 1 hours

116. (4) Corresponding angle for cigarette, pipe and bidi users

= 180° + 36° + 90° = 306°

Corresponding angle for other product consumers = 36°

Difference = 306 – 36 = 270°

$\because 360° \equiv 100\%$

$\therefore 270° \equiv \frac{100}{360} \times 270 = 75\%$

117. (3) $\because 360° \equiv 119060$

$\therefore 1° = \frac{119060}{360}$

$\therefore 180° \equiv \frac{119060 \times 180}{360}$

= 59530

118. (2) $\because 360° \equiv 119060$

$\therefore 90° \equiv \frac{119060}{360} \times 90$

= 29765

119. (2) Difference between corresponding angles for cigarette and pipe users = 180° – 36°

= 144°

$\because 360° \equiv 119060$

$\therefore 144° \equiv \frac{119060}{360} \times 144$

= 47624

220. (2) Percentage of people without smoking habits

$= \frac{18 \times 100}{360} = 5\%$

221. (1) Number of Engineering colleges in 80's

$= \frac{20000 \times 15}{100}$

= 3000

Number of Engineering colleges in 90°s $= \frac{40000 \times 40}{100}$

= 16000

Required difference

= 16000 – 3000

= 13000

222. (3) Number of Management colleges in 80's

$= \frac{20000 \times 10}{100} = 2000$

Number of Management colleges in 90's $\frac{40000 \times 19}{100}$

$= 7600$

Required difference

$= 7600 - 2000 = 5600$

223. (1) Required percentage increase

$= \left(\frac{20000 - 5000}{5000}\right) \times 100$

$= \frac{15000 \times 100}{5000} = 300\%$

224. (1) Number of Medical colleges in 1980

$= 20000 \times \frac{12}{100} = 2400$

Number of Medical colleges in 1990 $= \frac{40000 \times 8}{100} = 3200$

$\therefore$ Required percent

$= \left(\frac{3200 - 2400}{3200}\right) \times 100$

$= \frac{800}{32} = 25\%$

225. (2) Required average

$= \frac{(5 + 10 + 20 + 40 + 80) \times 1000}{5}$

$= \frac{155000}{5} = 31000$

226. (1) Literate males

$= 35000 \times \frac{45}{100} = 15750$

Literate females

$= 35000 \times \frac{35}{100} = 12250$

Required difference

$= 15750 - 12250 = 3500$

227. (4) Required difference in percentage shares

$= 12 - 8 = 4\%$

$\because$ $100\% \equiv 360^\circ$

$\therefore$ $4\% \equiv \frac{360 \times 4}{100} = 14.4^\circ$

228. (1) $\because$ $360^\circ \equiv 100\%$

$\therefore$ $36^\circ \equiv \frac{100 \times 36}{360} = 10\%$

Difference between percentage shares of literate males literate and females $= 45 - 35$

$= 10\%$

229. (1) $\because$ $360^\circ \equiv 100\%$

$\therefore$ $169.2^\circ \equiv \frac{169.2 \times 100}{360} = 47\%$

Percentage share of literate females and illiterate females $= (35 + 12)\% = 47\%$

230. (2) Percentage of miscellaneous charges $= 4\%$

Percentage of advertisement charges $= 18\%$

$\because$ $4\% \equiv$ Rs. 6000

$\therefore$ $18\% \equiv \frac{6000 \times 18}{4}$

$=$ Rs. 27000

231. (2) Difference of percentage charges on printing and advertisement $= 35 - 18 = 17\%$

$\because$ $100\% \equiv 360^\circ$

$\therefore$ $17\% \equiv \frac{360}{100} \times 17 = 61.2^\circ$

232. (3) $\because$ $100\% \equiv 360^\circ$

$\therefore$ $10\% \equiv \frac{360}{100} \times 10 = 36^\circ$

233. (1) Required ratio $= 15 : 18$

$= 5 : 6$

234. (2) Percentage of people involved in trade $= 6.7\%$

Percentage of people involved in service $= 20\%$

Difference of percentage

$= (20 - 6.7)\%$

$= 13.3\%$

$\therefore$ Required answer

$= 13.3\%$ of 20000

$= \frac{20000 \times 13.3}{100}$

$= 2660$

235. (2) Required ratio = ratio of corresponding percentages

$= 20 : 30 = 2 : 3$

236. (3) Corresponding percentage of service $= 20\%$

$\because$ $100\% \equiv 360^\circ$

$\therefore$ $1\% \equiv \frac{360}{100}$

$\therefore$ $20\% \equiv \frac{360}{100} \times 20 = 72^\circ$

237. (4) Difference of corresponding percentages $= (33.30 - 6.7)\%$

$= 26.6\%$

$\therefore$ Required answer

$= 26.6\%$ of 20000

$= \frac{20000 \times 26.6}{100} = 5320$

238. (2) Corresponding angle of year 2013 $= 135^\circ$

Correspomding angle of year 2011 $= 75^\circ$

$\because$ $135^\circ \equiv$ Rs. 31500

$\therefore$ $75^\circ \equiv$ Rs. $\left(\frac{31500}{135} \times 75\right)$

$=$ Rs. 17500

239. (2) Required ratio

= Ratio of corresponding central angles

$= 45^\circ : 135^\circ$

$= 1 : 3$

240. (4) Required percentage increase

$= \left(\frac{135 - 75}{75}\right) \times 100$

$= \frac{60 \times 100}{75} = 80\%$

241. (2) Percentage increase in 2012 in comparison to 2011

$= \left(\frac{105 - 75}{75}\right) \times 100$

$= \frac{3000}{75} = 40$

Percentage increase in 2013 in comparison to 2012

$= \left(\frac{135 - 105}{105}\right) \times 100$

$= \frac{3000}{105} = \frac{200}{7}$

$\therefore$ Required ratio

$= 40 : \frac{200}{7}$

$= 7 : 5$

242. (2) Percentage expenditure on (football + basket ball + cricket)
$= (15 + 12.5 + 25)\% = 52.5\%$
Percentage expenditure on (tennis + hockey + golf)
$= (10 + 15 + 12.5)\%$
$= 37.5\%$
$\therefore$ Required ratio
$= 52.5 : 37.5 = 7 : 5$

243. (4) $\because$ 100% $\equiv$ Rs. 12000000

$\therefore \frac{25}{2}\% \equiv \frac{12000000}{100} \times \frac{25}{2}$

= Rs. 1500000

244. (4) Percentage expenditure on (hockey + football + others)
$= (15 + 15 + 10)\% = 40\%$
$\because$ 100% $\equiv 360°$

$\therefore 1\% \equiv \frac{360°}{100}$

$\therefore 40\% \equiv \frac{360°}{100} \times 40$

$= 144°$.

245. (1) According to the question,
$\because$ 25% $\equiv$ Rs. 2000000

$\therefore 1\% \equiv \text{Rs.} \left(\frac{2000000}{25}\right)$

$\therefore 10\% \equiv \text{Rs.} \left(\frac{2000000}{25} \times 10\right)$

$\equiv$ Rs. 800000

246. (3) Total population of village X = x (let).

$\therefore \frac{x \times 38}{100} = 12160$

$\Rightarrow x = \frac{12160 \times 100}{38} = 32000$

$\because$ 16% $\equiv$ 32000

$\therefore 11\% \equiv \frac{32000}{16} \times 11 = 22000$

247. (3) Required ratio
$= 46 \times 21 : 42 \times 11 = 23 : 11$

248. (2) Population percentage of village R = 16%
Population percentage of village Y = 15%
$\because$ 16% $\equiv$ 32000

$\therefore 15\% \equiv \frac{32000}{16} \times 15$

$= 30000$
$\therefore$ Population below poverty line in village Y
= 52% of 30000

$= 30000 \times \frac{52}{100}$

$= 15600$

249. (2) Population percentage of village V in 2009 = 10%
$\because$ 15% $\equiv$ 30000

$\therefore 10\% \equiv \frac{30000}{15} \times 10 = 20000$

Population of village V in 2010

$= \frac{20000 \times 110}{100} = 22000$

$\therefore$ Population below poverty line

$= \frac{22000 \times 58}{100} = 12760$

250. (3) Total sales of English News Papers = 2500 + 2000 + 1800 + 3000 + 200 = 9500
Total sales of Hindi News Papers = 3500 + 2400 + 3600 + 2500 + 4000 = 16000
Required difference
= 16000 – 9500 = 6500

251. (2) Required central angle

$= \frac{4000}{16000} \times 360° = 90°$

252. (1) Ratio = 160 : 95
$= 32 : 19$
Required sum = 32 + 19 = 51

253. (3) Required ratio

$= \frac{(2000 + 1800 + 200)}{3} : \left(\frac{2500 + 3000}{2}\right)$

$= \frac{4000}{3} : \frac{5500}{2}$

$= \frac{8}{3} : \frac{11}{2}$

$= 16 : 33$

254. (1) Required ratio

$= \frac{5000}{2} : \frac{16000}{5}$

$= 2500 : 3200$
$= 25 : 32$

255. (3) Total number of children
= 871 + 222 + 275 + 657 + 60
= 2085
$\therefore$ Required per cent

$= \frac{871}{2085} \times 100 \approx 41.7$

256. (1) Required average

$= \frac{2085}{5} = 417$

257. (4) Required ratio = 60 : 275
$= 12 : 55$

258. (1) Number of children with disorders except language disorder
= 2085 – 657 = 1428

Their average = $\frac{1428}{4} = 357$

Required ratio = 657 : 357
$= 219 : 119$

259. (2) Number of blood group 'O' donors

$= \frac{100.8}{360} \times 150 = 42$

260. (1) Persons with blood group A or B

$= \frac{(129.6 + 72)}{360} \times 150$

$= \frac{201.6 \times 150}{360} = 84$

261. (3) $\because$ 360° $\equiv$ 100%

$\therefore 1° \equiv \frac{100}{360}\%$

$\therefore 57.6° \equiv \left(\frac{57.6 \times 100}{360}\right)\%$

= 16%

262. (4) Required ratio

$= 72° : \left(\frac{100.8 + 129.6 + 57.6}{3}\right)°$

$= 72° : \frac{288°}{3}$

$= 72° : 96°$
$= 3 : 4$

263. (1) Let the total production of foodgrains be x units.
$\therefore$ Required ratio

$= \frac{(30 + 10)x}{100} : \frac{(55 - 5)x}{100}$

$= 40 : 50 = 4 : 5$

264. (2) Production percentage of rice and tea = 60%

Production percentage of wheat = 30%

Required percentage

$= \left(\frac{60-30}{30}\right)\times 100 = 100\%$

265. (4) $\because$ 100% ≡ 360°

$\therefore$ 30% ≡ $\frac{360^\circ}{100}\times 30 = 108^\circ$

266. (3) Total production

= 500000 kg

Production percentage of rice

= 55%

$\therefore$ Production of rice

$= \frac{500000\times 55}{100} = 275000$ kg.

267. (2) Expenditure per cent on clothing and grocery

= (8 + 20)% = 28%

$\because$ 100% ≡ Rs. 32000

$\therefore$ 28% ≡ Rs. $\left(\frac{32000}{100}\times 28\right)$

= Rs. 8960

268. (4) Budgetary expenditure on miscellaneous items

= 7% of Rs. 32000

= Rs. $\left(\frac{32000\times 7}{100}\right)$

= Rs. 2240

New expenditure = Rs. 3040

$\therefore$ Increase = Rs. (3040 – 2240)

= Rs. 800

269. (4) Required difference

= (19 – 6)% of Rs. 32000

= Rs. $\left(\frac{32000\times 13}{100}\right)$

= Rs. 4160

270. (2) Budgetary expenditure on grocery

= Rs. $\left(\frac{32000\times 20}{100}\right)$ = Rs. 6400

Actual expenditure

= Rs. 4672

Difference = Rs. (6400 – 4672)

= Rs. 1728

271. (1) Percentage expenditure on cricket and hockey = 40%

$\because$ 100% ≡ Rs. 15000000

$\therefore$ 40% ≡ Rs. $\left(\frac{15000000\times 40}{100}\right)$

≡ Rs. 6000000

272. (4) $\because$ 100% ≡ Rs. 12000000

$\therefore$ 12.5% ≡ Rs. $\left(\frac{12000000}{100}\times 12.5\right)$

= Rs. 1500000

273. (2) Required ratio = 15 : 15

= 1 : 1

274. (1) Percentage expenditure on tennis = 10%

$\because$ 100% ≡ 360°

$\therefore$ 10% ≡ $\frac{360}{100}\times 10 = 36^\circ$

275. (*) Corresponding central angle :

Food ⇒ 90°

Education + Clothing

⇒ 27 + 18 = 45°

$\therefore$ Required per cent

$= \frac{90^\circ-45^\circ}{45}\times 100 = 100\%$

276. (2) Central angle for savings

= 108°

$\because$ 360° ≡ 100%

$\therefore$ 108° ≡ $\left(\frac{100}{360}\times 108\right)\%$

= 30%

277. (3) Corresponding angle for rent = 54°

$\because$ 360° ≡ Rs. 72000

$\therefore$ 54° ≡ Rs. $\left(\frac{72000\times 54}{360}\right)$

= Rs. 10800

278. (4) Corresponding angle for clothing, transportation and entertainment

= 18° + 14° + 13° = 45°

$\because$ 360° ≡ 100%

$\therefore$ 45° ≡ $\frac{100}{360}\times 45 = \frac{25}{2}$

= 12.5%

279. (4) Corresponding percentage of paper = 16%

$\because$ 100% ≡ 360°

$\therefore$ 1% ≡ $\frac{360^\circ}{100}$

$\therefore$ 16% ≡ $\frac{360}{100}\times 16 = 57.6^\circ$

280. (3) Corresponding percentage of printing = 42%

Corresponding percentage of royalty = 12%

$\because$ 42% ≡ Rs. 16800

$\therefore$ 12% ≡ Rs. $\left(\frac{16800}{42}\times 12\right)$

= Rs. 4800

281. (2) Required percent

$= \frac{(24-12)}{24}\times 100$

$= \frac{12}{24}\times 100 = 50\%$

282. (2) $\because$ 2% ≡ Rs. 12000

$\therefore$ 24% ≡ Rs. $\left(\frac{12000}{2}\times 24\right)$

= Rs. 144000

283. (1) Corresponding angle for steel = 36°

$\because$ 360° ≡ 100%

$\therefore$ 36° ≡ $\left(\frac{100}{360}\times 36^\circ\right)\% = 10\%$

284. (3) Required ratio = 72° : 54°

= 4 : 3

285. (2) Corresponding angle for cement = 72°

Corresponding angle for labour expenses = 90°

$\because$ 72° ≡ Rs. 5000

$\therefore$ 90° ≡ Rs. $\left(\frac{5000}{72^\circ}\times 90^\circ\right)$

= Rs. 6250

286. (3) Sum of the corresponding angles for steel, cement and miscellaneous items

= (36° + 72° + 108°) = 216°

$\because$ 360° ≡ 100%

$\therefore$ 216° ≡ $\frac{100}{360}\times 216 = 60\%$

$\therefore$ Required average = 20%

287. (3) Corresponding angle for English, Science and Social Science = 55° + 80° + 65°

= 200°

Corresponding angle for Hindi and Maths = 90 + 70 = 160°

$\therefore$ Required percent

$= \frac{200-160}{160}\times 100$

$= \frac{400}{16} = 25\%$

288. (2) Corresponding angle for Hindi = 70°

$\because$ 360° ≡ 540

$\therefore$ $70° \equiv \frac{540}{360} \times 70 = 105$

289. (4) Difference between corresponding angles for English and Science = 80° – 55° = 25°

Difference between corresponding angles for Maths and Social Science = 90° – 65° = 25°

290. (3) Corresponding angles :

Hindi + English ⇒ 70 + 90= 160°

English + Social Science

⇒ 55° + 65° = 120°

Difference = 160 – 120 = 40°

$\because$ 360° ≡ 540

$\therefore$ $40° \equiv \frac{540}{360} \times 40 = 60$

291. (1) Corresponding central angle for the cost on timber = 36°

$\because$ 360° ≡ Rs. 600000

$\therefore$ $36° \equiv \text{Rs.} \left(\frac{600000 \times 36}{360}\right)$

= Rs. 60000

292. (3) Corresponding central angles :

Labour ⇒ 90°

Supervision ⇒ 54°

Difference = 90° – 54° = 36°

$\therefore$ Required excess amount

$= \text{Rs.} \left(\frac{36}{360} \times 600000\right)$

= Rs. 60000

293. (1) Corresponding central angles :

Labour ⇒ 90°

Steel ⇒ 54°

$\therefore$ Required excess amount

= 90° – 54° = 36°

i.e. 10% of total cost.

294. (1) Corresponding angle for cement, steel and supervision

= 72° + 54° + 54° = 180°

$\therefore$ Required per cent

$= \frac{180°}{360°} \times 100 = 50\%$

295. (4) Corresponding central angle for miscellaneous expenditure = 108°

$\because$ 360° ≡ 100%

$\therefore$ $1° \equiv \frac{100}{360}\%$

$\therefore$ $108° \equiv \frac{108 \times 100}{360} = 30\%$

296. (1) Required ratio = Ratio of corresponding central angles

= 135° : 81°

= 5 : 3

297. (2) Corresponding angle for expenses on education = 36°

$\because$ 360° ≡ Rs. 16000

$\therefore$ $36° \equiv \frac{16000 \times 36}{360}$ = Rs. 1600

298. (4) Difference between the respective angles for rent and education

= 81 – 36 = 45°

$\therefore$ Required answer

$= \text{Rs.} \left(\frac{45}{360} \times 16000\right)$

= Rs. 2000

TYPE-II

1. (3) ₹ 45.7 [Clear from graph]

2. (3) 24 years [Clear from graph]

3. (4) Required premium

= 43·75 × 10 = ₹ 437·5

4. (2) Required increase

$\frac{46.544}{44} \times 100 = 5.68\%$

5. (2) Required difference

= (44 – 43.50) × 100

= 0.50 × 100 = ₹ 50

6. (2) The car covers 6 km in 1 hour.

$\therefore$ Speed = 6 kmph

7. (2) Speed = 6 kmph

$= \frac{6 \times 1000}{60}$ m/min.

=100m/min.

8. (1) Required distance

= Speed × Time

= 6×4.5 = 27 km

9. (4) Time taken = $\frac{\text{Distance}}{\text{Speed}}$

$= \frac{15}{6} = 2\frac{1}{2}$ hours.

10. (1) Both the lines intersect when time is 10:30 a.m.

11. (2) Time = $\frac{5}{2}$ hours,

Distance = 120 km

$\therefore$ Speed of scooterist

$= \frac{120}{5} \times 2 = 48$ kmph

12. (3) Time = 11:30 – 9:00

$= 2\frac{1}{2}$ hours

13. (4) Clear from the graph.

14. (4) Clear from table.

15. (1) Range of prices :

Year 2000 ⇒ 23 – 5 = ₹ 18

Year 2001 ⇒ 20 – 17 = ₹ 3

Year 2002 ⇒ 14 – 10 = ₹ 4

Year 2003 ⇒ 11 – 5 = ₹ 6

16. (3) Price of rice in June = ₹ 21

17. (4) Clear from table.

Difference = 23 – 5

= 18 ₹ i.e. month is December.

18. (4) Average marks

$= \frac{10 + 12.5 + 15}{3}$

$= \frac{37.5}{3} = 12.5$

19. (2) Difference between temperatures :

Sunday ⇒ 39 – 23 = 16°

Saturday ⇒ 42.5 – 24 = 18.5°

Wednesday ⇒ 32.5 – 15 = 17.5°

20. (2)

Wages	Number of workers
120	12
140	26 – 12 = 14
160	34 – 26 = 8
180	40 – 34 = 6
200	50 – 40 = 10

$\therefore$ Required per cent

$= \frac{8}{50} \times 100 = 16\%$

21. (4) Median

$= \frac{\text{Lowest value + Highest value}}{2}$

$= \frac{120 + 200}{2}$ = ₹ 160

22. (4) Definite income is not known.

23. (4) It is obvious from the graph.

24. (1) Number of students

= 15 + 30 + 35 + 30 + 25 + 22.5 + 22.5 = 180

25. (3) Percentage decrease

$$= \frac{32-27}{32} \times 100$$

$$= \frac{5 \times 100}{32} = \frac{125}{8} = 15\frac{5}{8}\%$$

26. (1) $\frac{\text{Exports}}{\text{Imports}} = 1.75$

$$= \frac{175}{100} = \frac{7}{4}$$

After 40% increase in imports,

$$\frac{\text{Exports}}{\text{Imports}} = \frac{7}{\frac{4 \times 140}{100}} = \frac{700}{4 \times 140}$$

$$= \frac{5}{4} = 1.25$$

27. (2) In the year 2005,
Imports of company X
= ₹ 180 crores
Exports = 1.75 × 180
= ₹ 315 crores
Exports of company Y
= ₹ 157.5 crores
∴ Imports of company Y

$$= \frac{157.5}{0.75}$$

= ₹ 210 crores,

28. (3) Number of examinees getting more than average marks
= 72 + 48 + 24 + 8 = 152

29. (4) Number of students who got above 80% marks = 24 + 8 = 32
∴ Required percent

$$= \frac{32}{273} \times 100 = 11.72\%$$

30. (1) Number of students who got marks above 60% and below 80%
= 72 + 48 = 120
∴ Required percentage

$$= \frac{120 \times 100}{273} = 43.95\%$$

31. (3) Number of students who got 40% or less marks
= 2 + 4 + 12 + 26 = 44
∴ Required percentage

$$= \frac{44}{273} \times 100 = 16.11\%$$

32. (2) Required percentage

$$= \frac{3150}{4500} \times 100 = 70\%$$

33. (3) Average demand

$$\left(\frac{2100+3150+2600+5000+2800+3300}{6}\right)$$

lakh tonnes

$$= \frac{18950}{6} \text{ lakh tonnes}$$

Average production

$$= \left(\frac{1450+3660+3100+4200+3700+4500}{6}\right)$$

lakh tonnes

$$= \frac{20610}{6} \text{ lakh tonnes}$$

Required difference

$$= \frac{20610}{6} - \frac{18950}{6}$$

$$= \frac{1660}{6} = 276.7 \text{ lakh tonnes}$$

∴ Required answer
= 275 lakh tonnes

34. (4) Required per cent

$$= \frac{1450}{2600} \times 100$$

$$= \frac{1450}{26} = 55.8$$

35. (2) Companies having more demand than production
⇒ A and D
Companies having more production than demand
⇒ B, C, E and F
∴ Required ratio = 2 : 4 = 1 : 2

36. (1) Average production of type P vehicles

$$= \frac{100+125+200+225+275+275}{6}$$

$$= \frac{1200}{6} = 200 \text{ thousands}$$

Required years
⇒ 2012, 2013 and 2014

37. (2) Required percentage decrease

$$= \left(\frac{150-125}{150}\right) \times 100$$

$$= \frac{25}{150} \times 100 = \frac{50}{3}$$

= 16.7%

38. (3) Total production of type P vechicles in 2009 and 2011
= 100 + 200 = 300 thousands
Total production of type Q vehicles in 2010 and 2014
= 150 + 225 = 375 thousands
∴ Required percent

$$= \frac{300}{375} \times 100 = 80\%$$

39. (1) Total production of type P vehicles = 1200 thousands
Total production of type Q vehicles
= 175 + 150 + 125 + 175 + 175 + 225 = 1025
∴ Required ratio
= 1200 : 1025 = 48 : 41

40. (3) Required percent

$$= \frac{150}{275} \times 100 = 54.5\%$$

41. (3) Required percent

$$= \left(\frac{73.70-36.49}{36.49}\right) \times 100$$

$$= \frac{3721}{36.49} \approx 102\%$$

42. (3) Difference in 2014
= Rs. (73.70 – 66.79)
= Rs. 6.91
It is obvious from the graph.

43. (1) Required average

$$= \text{Rs. } \frac{\left(\begin{array}{l}33.65+32.85+34.04+\\32.76+38.51+40.01+43.47\end{array}\right)}{7}$$

$$= \frac{255.29}{7} = \text{Rs. } 36.47$$

44. (2) Required ratio = 45 : 50
= 9 : 10

45. (3) Number of employees recruited in 2012 = 25
Number of employees recruited in 2014 = 40
∴ Required percent

$$= \frac{25}{40} \times 100 = 62.5\%$$

46. (2) Required answer = 640 + 35 + 45 + 25 + 50 + 40 = 835

47. (2) Percentage increase

$$= \frac{35}{640} \times 100 \approx 5.5$$

48. (1) Employees recruited in 2015

$$= \frac{40 \times 140}{100} = 56$$

TYPE-III

1. (4) According to graph income spend on food is 20%.

2. (2) Percentage expenditure on clothing = 15%
Percentage savings = 12.5%
$\therefore$ Required difference
= (15 – 12.5)% = 2.5%

3. (3) Savings
= 12.5% of ₹ 100000

$$= ₹ \frac{12.5 \times 100000}{100} = ₹ 12500$$

4. (3) Both expenditures are equal to 20% each.

5. (1) The expenditure on housing is 10% which is less than 12.5%, the savings.

6. (3) Birth–rate of Germany = 16
Birth–rate of England = 20

$$\% \text{ Diff.} = \frac{20-16}{16} \times 100 = 25\%$$

It is 25% more than 16.

7. (1) Birth–rate of India = 33
Birth-rate of England = 20
$\therefore$ Required percentage

$$= \frac{33}{20} \times 100 = 165\ \%$$

8. (4) Birth- rate of China = 40
Birth – rate of Germany = 16
$\therefore$ Required answer

$$= \frac{40}{16} = 2.5$$

9. (2) Required ratio $= \frac{33}{15}$

$$= \frac{11}{5} = 11:5$$

10. (2) Birth–rate of England = 20
Birth–rate of New Zealand = 30
Required percentage

$$= \frac{30-20}{30} \times 100 = \frac{100}{3}\%$$

$$= 33\frac{1}{3}\%$$

11. (1) Population in 1971
= 54.80 crores
Population in 1981 = 68.40 crores
Increase = (68.40 – 54.80) crores
= 13.6 crores
$\therefore$ Increase%

$$= \frac{13.6}{54.80} \times 100 = 24.8\ \%$$

12. (4) Percentage increase in 1981 = 24.8% (From Q. 11)
Percentage increase in 1971

$$= \left(\frac{54.80 - 43.92}{43.92}\right) \times 100$$

= 24.77%
Hence, increase is highest in 1981.

13. (2) Percentage increase in 1941

$$= \left(\frac{31.85 \times 27.90}{27.90}\right) \times 100$$

$$= \frac{3.95 \times 100}{27.90} = 14.16\%$$

Percentage increase in 1951

$$= \left(\frac{36.14 \times 31.85}{31.85}\right) \times 100$$

$$\frac{4.29 \times 100}{31.85} = 13.47\%$$

Hence, % increase is least in 1951

14. (1) Total Increase
= (68.40 – 27.90) crores
= 40.5 crores
$\therefore$ Annual increase

$$= \frac{40.5}{50} \text{ crores}$$

$$= \frac{40.5 \times 10000000}{50} = 8100000$$

15. (2) Required answer
= 16 + 8 + 20 = 44

16. (4) It is obvious from the graph.

17. (3) Required answer
= 7 + 24 + 14 = 45

18. (2) Required number of cycles
= 1060 + 920 = 1980

19. (3) Required number of cycles
= 1440

20. (1) Required number of cycles
= 800 + 1300 + 1060 + 920 + 1440 = 5520

21. (1) Percentage decrease

$$= \frac{70-25}{70} \times 100$$

$$= \frac{4500}{70} = 64.2\ \%$$

22. (3) It is obvious from the graph.
Required average production
= 40000 tonnes

23. (2) Percentage increase

$$= \frac{90-40}{40} \times 100 = 125\ \%$$

24. (3) Average production

$$= \frac{(40+30+70+25+55+50+80+90)1000}{8} \text{ tonnes}$$

$$= \frac{440}{8} \times 1000 = 55000 \text{ tonnes}$$

Years having more production than it ≡ 2003, 2007 and 2008

25. (3) Percentage decrease

$$= \frac{60-45}{60} \times 100 = 25\ \%$$

26. (4) Average production

$$= \left(\frac{25+40+60+45+65+50+75+80}{8}\right)$$

ten thousand tonnes
= 55 × ten thousand tonnes
$\therefore$ Required years = 1997, 1999, 2001 and 2002.

27. (3) Percentage increase :
In Year 1996

$$\Rightarrow \frac{40-25}{25} \times 100 = 60\ \%$$

In Year 1997

$$\Rightarrow \frac{60-40}{40} \times 100 = 50\ \%$$

% increase is maximum in 1996

28. (1) Required ratio
= (40 + 60) : (25 + 45 + 50)
= 100: 120 = 5 : 6

29. (3) It is obvious from the graph.

30. (2) Required total daily payment
= 35 × 9 = ₹ 315

31. (2) Required answer

$$= \frac{4200}{2800} = 1.5$$

32. (3) Percentage increase

$$= \frac{4200-2100}{2100} \times 100 = 100\%$$

33. (4) Percentage increase

$$1992\text{-}93 \Rightarrow \frac{3600-2600}{2600} \times 100 \approx 38\%$$

$$1990\text{-}91 \Rightarrow \frac{2800-2100}{2100} \times 100 \approx 33.3\%$$

$$1988\text{-}89 \Rightarrow \frac{3100-2200}{2200} \times 100 \approx 41\%$$

34. (1) Average deficit = $\frac{23200}{8}$

= ₹ 2900 crore

∴ Required ratio = 3 : 5

35. (3) Required percentage

$= \frac{3600}{2900} \times 100 \approx 125\%$

36. (2) Required difference

$= \frac{1}{3}[(70 + 80 + 90 - 80 - 60 - 75)]$ lakh tonnes

$= \frac{25}{3}$ lakh tonnes

$= 8\frac{1}{3}$ lakh tonnes

37. (3) Required ratio
= (70 + 90 + 60) : (80 + 80 + 75)
= 220 : 235 = 44 : 47

38. (1) $(90 + 60) \times \frac{x}{100} = 80 + 75$

$\Rightarrow \frac{150 \times x}{100} = 155$

$\Rightarrow x = \frac{155 \times 100}{150} = \frac{310}{3}$

$= 103\frac{1}{3}$

39. (4) In year 2000 average production of fertilizers

$= \frac{455}{6} = 75\frac{5}{6}$ lakh tonnes

40. (4) It is obvious from the graph.

41. (1) Average sales of the branches B1 and B4

$= \frac{20 + 80}{2} = 50$ thousand

Average sales of the branches B3 and B5

$= \frac{55 + 45}{2} = 50$ thousand

42. (2) Average sales of all branches

$= \frac{300}{6} = 50$ thousand

The sale of branches B1, B2 and B5 are less than the average sales.

43. (1) New sale of books from branch B2 = $\frac{40 \times 130}{100}$

= 52 thousand

New sale of books from branch B4

$= \frac{80 \times 90}{100} = 72$ thousand

New average sales = $\frac{304}{6}$

$= \frac{152}{3}$ thousand

Increase = $\frac{152}{3} - 50 = \frac{2}{3}$ thousand

∴ Percentage increase

$= \frac{2}{3 \times 50} \times 100 = \frac{4}{3} = 1.33\%$

44. (2) Required total sales

$= \frac{300 \times 102}{100} = 306$ thousand

45. (2) B1 + B4 = B2 + B6
= B3 + B5 = 100000
B3 – B5 = 55 – 45
= 10 thousand
B4 – B1 = 80 – 20
= 60 thousand
B6 – B2 = 60 – 40
= 20 thousand
∴ Minimum diff. = 10

46. (4) Total number of students
= (6 + 15 + 11 + 18 + 16) × 10
= 66 × 10 = 660

47. (2) Bicycle and Rickshaw users
= (18 + 16) × 10 = 340

48. (3) Number of students who use bus = 150

∴ Required percentage

$= \frac{150}{660} \times 100$

$= \frac{250}{11} = 22\frac{8}{11}\%$

49. (4) Required ratio = 6 : 16 = 3 : 8

50. (2) Required sales
= ₹ (1773 + 1115) crore
= ₹ 2888 crore

51. (1) It is obvious from the bar diagram.

52. (2) Clear from the graph

53. (2) Required average

$= \frac{8730 + 924}{2}$

$= \frac{9654}{2}$ = ₹ 4827 crores

54. (2) Required difference
= ₹ (5345 – 1841) crores
= ₹ 3504 crore

55. (2) It is obvious from the bar graph.
Section A = section F = 34

56. (4) Required ratio = 34 : 31

57. (3) Total number of students
= 34 + 35 + 31 + 32 + 33 + 34
= 199

58. (3) Required ratio = 35 : 31

59. (4) Required percentage

$= \frac{31}{199} \times 100 = 15.57\%$

60. (3) Required percentage

$= \frac{440}{400} \times 100 = 110\%$

61. (2) Percentage decrease(2001)

$= \frac{340 - 320}{340} \times 100 = 6\%$

Percentage decrease (2005)

$= \frac{440 - 400}{440} \times 100 = 9\%$

∴ % decrease is least in 2001

62. (3) Required difference
= (420 – 320) × 1000
= ₹ 100000

63. (2) Required answer

$= \frac{320}{400} = 0.8$

64. (4) Percentage increase in 2004

$= \frac{440 - 420}{420} \times 100 = 4.76\%$

Percentage increase in 2003

$= \frac{420 - 400}{400} \times 100 = 5\%$

∴ % Increase in least in 2004

65. (3) Year 1999 ⇒ 1500 quintals

66. (1) Percentage increase

$= \frac{1000 - 500}{500} \times 100 = 100\%$

67. (3) Production in 1999
= 1500 quintal
Production in 2000
= 1300 quintal
Percentage decrease

$= \frac{1500 - 1300}{1500} \times 100$

$= \frac{40}{3} = 13\frac{1}{3}\%$

68. (4) Required total production
= (1200 + 600 + 500 + 1000) quintals
= 3300 quintals

69. (3) Average production

$$= \frac{8834}{7} = 1262 \text{ quintals}$$

Years of more than average production
= 2003, 2005 and 2006

70. (3) Per cent rate of decline :
Year 2004

$$\Rightarrow \frac{400}{1640} \times 100 = 24.4\%$$

Year 2002

$$\Rightarrow \frac{1085 - 720}{1085} \times 100$$

$$= \frac{365}{1085} \times 100 = 33.64\ \%$$

71. (2) Average marks obtained by the student.

$$= \frac{60 + 30 + 80 + 50 + 60}{5}$$

$$= \frac{280}{5} = 56$$

72. (2) It is obvious from the bar graph.

73. (4) Required ratio = 100 : 40
= 5 : 2

74. (4) Required ratio = 80 : 60
= 4 : 3

75. (3) Required average

$$= \frac{70 + 40}{2} = \frac{110}{2} = 55$$

76. (3) Required number of girls
= 15 + 10 = 25

77. (1) Number of girls who ate six or more servings per day
= 3 + 3 + 3 = 9
∴ Required percentage

$$= \frac{9}{72} \times 100 = \frac{25}{2} = 12.5\%.$$

78. (3) Required number of girls
= 10 + 8 + 5 = 23

79. (4) Required per cent

$$= \frac{(17.5 - 12.5)}{12.5} \times 100$$

$$= \frac{500}{12.5} = 40\%$$

80. (4) Required ratio
= (20 + 12.5) : (10 + 17.5)
= 32.5 : 27.5 = 13 : 11

81. (2) Difference in percentage for expenditure on transport and taxes
= 12.5 – 10 = 2.5%
∵ 15 % ≡ ₹ 2.10 crore

$$\therefore 2.5\% \equiv \frac{2.10 \times 2.5}{15}$$

= ₹ 0.35 crore
= ₹ 35 lakh

82. (3) Total expenditure = 5 × N

$$\therefore N = \frac{100}{5} = 20$$

83. (2) Percentage of (Advertisement + Taxes + Research and development) = 15 + 10 + 5 = 30%
∵ 17.5% ≡ ₹ 2.45 crore

$$\therefore 30\% \equiv \frac{2.45}{17.5} \times 30$$

= ₹ 4.2 crore

84. (3) Difference of percentage expenditure on transportation and taxes
= 12.5 – 10 = 2.5%
Expenditure on advertisement = 15%
∵ 15% ≡ Rs. 2.10 crores
∴ 2.5%

$$\equiv \text{Rs.} \left(\frac{2.10}{15} \times 2.5 \right) \text{ crores}$$

= Rs. 0.35 crore
= Rs. 35 lakhs

85. (2) Required ratio
= (20 + 12.5) : (10 + 17.5)
= 32.5 : 27.5
= 13 : 11

86. (3) Percentage expenditure on loans = 17.5%
Percentage expenditure on advertisement, taxes and research and development
= (15 + 10 + 5)% = 30%
∵ 17.5% ≡ Rs. 2.45 crores

$$\therefore \ 30\% \equiv \frac{2.45}{17.5} \times 30$$

= Rs. 4.2 crores

87. (2) Required percentage

$$= \left(\frac{17.5 - 12.5}{12.5} \right) \times 100$$

$$= \frac{500}{12.5} = 40$$

88. (4) According to the question,

$$\frac{x \times 100.17}{100} = 77.23 - 76.23$$

$$\Rightarrow \frac{x \times 100.17}{100} = 1$$

$$\Rightarrow x = \frac{100}{100.7} \approx 1$$

89. (2) Required ratio = (77.23 + 88.93) : (76.23 + 100.17)
= 166.16 : 176.40
= 16616 : 17640 = 2077 : 2205

90. (2) Average production during 1920 – 1927

$$= \left(\frac{71.30 + 43.51 + 67.66 + 76.23 + 77.23 + 88.93 + 91.75 + 100.17}{8} \right)$$

million tonnes

$$= \frac{616.78}{8} = 77.1 \text{ million tonnes}$$

∴ Required years = 1920, 1921, 1922 and 1923

91. (3) Average production of steel = 77.1 million tonnes

92. (1) Average production =

$$\left(\frac{25 + 40 + 60 + 45 + 65 + 50 + 75 + 80}{8} \right)$$

ten thousand tonnes

$$= \frac{440}{8} = 55 \text{ ten thousand tonnes}$$

Required years ⇒ 1997, 1999, 2001 and 2002

93. (1) Total production in 1996 and 1997
= 40 + 60 = 100 ten thousand tonnes
Total production in 1995 and 2001
= 25 + 75 = 100 ten thousand tonnes

94. (1) Required percentage increase

$$= \left(\frac{80 - 25}{25} \right) \times 100$$

$$= \frac{55 \times 100}{25} = 220\%$$

95. (2) Percentage increase in 1997

$$= \frac{60-40}{40} \times 100$$

$= 50\%$

Percentage increase in 1996

$$= \frac{40-25}{25} \times 100$$

$$= \frac{1500}{25} = 60\%$$

96. (2) Required percentage decrease

$$= \frac{60-45}{60} \times 100$$

$$= \frac{1500}{60} = 25\%$$

97. (2) FDI in 1992 and 1993
= Rs. (5.7 + 10.15) crores
= Rs. 15.85 crores.

98. (4) Highest FDI in :
Year 1997 $\Rightarrow$ Rs. 31.36 crores
Year 1996 $\Rightarrow$ Rs. 24.23 crores

99. (1) Average investment

$$= \text{Rs.} \left(\frac{5.7 + 10.15 + 20.16 + 10.22 + 24.23 + 31.36}{6} \right) \text{ crores}$$

$$= \frac{101.82}{6} = \text{Rs. } 16.97 \text{ crores}$$

$\therefore$ Required ratio
= 31.36 : 16.97
$\approx$ 2 : 1

100. (2) Required difference
= Rs. (31.36 – 24.23) crores
= Rs. 7.13 crores

101. (2) Total foodgrain production in 1982 and 1984
= (20 + 15) thousand tonnes
= 35 thousand tonnes
= Production in 1981

102. (3) Required difference
= (35 – 30) thousand tonnes
= 5000 tonnes

103. (4) Percentage increase

$$= \frac{30-15}{15} \times 100 = 100\%$$

104. (1) It is obvious from the graph.
Year 1981 $\Rightarrow$ 35 from 30 (Increase)
Year 1982 $\Rightarrow$ 20 from 35 (Decrease)
Year 1983 $\Rightarrow$ 25 from 20 (Increase)
Year 1984 $\Rightarrow$ 15 from 25 (Decrease)
Year 1985 $\Rightarrow$ 30 from 15 (Increase)
By calculating percentage, answer can be found.

105. (4) There is continuous increase in population as evident form the bar diagram.

106. (4) Clearly in the year 2011 the population will be maximum as it increases each year.

107. (4) We have only percentage increase in population, and no data about population in 2008 or else where is available.

108. (3) Single equivalent percentage increase for 2005 and 2006

$$= \left(6 + 3 + \frac{6 \times 3}{100}\right)\%$$

$= 9.18\%$

Similarly,

Single equivalent percentage increase for 9.18% and 4%

$$= \left(9.18 + 4 + \frac{9.18 \times 4}{100}\right)\%$$

$= 13.18 + 0.3672 \approx 13.55\%$

Single equivalent percentage increase for 13.55% and 8%

$$= \left(13.55 + 8 + \frac{13.55 \times 8}{100}\right)\%$$

$= 21.55 + 1.08 \approx 22.63\%$

109. (3) Average foreign exchange reserve

$$= \frac{(2640 + 3720 + 2520 + 3360 + 3120 + 4320 + 5040 + 3120)}{8} \text{ million dollar}$$

$$= \frac{27840}{8} = 3480 \text{ million dollar}$$

$\therefore$ Required ratio = 3 : 5

110. (4) Required per cent

$$= \frac{4320}{3480} \times 100 \approx 124\%$$

111. (1) Percentage increase

$$= \frac{5040-2520}{2520} \times 100$$

$$= \frac{2520}{2520} \times 100 = 100\%$$

112. (3) Required ratio
= (2640 + 3720 + 2520) : (3120 + 4320 + 5040)
= 8880 : 12480 = 37 : 52

113. (3) Percentage expenditure on interest on loans = 17.5%
Percentage expenditure on transport = 12.5%
$\therefore$ Required per cent

$$= \left(\frac{17.5-12.5}{12.5}\right) \times 100$$

$$= \frac{500}{12.5} = 40\%$$

114. (2) Percentage expenditure on interest on loans
= 17.5%
Percentage expenditure on advertisement, tax and research and development
= 15 + 10 + 5
= 30%
$\because$ 17.5% $\equiv$ Rs. 2.45 crores

$$\therefore 30\% \equiv \text{Rs.} \left(\frac{2.45}{17.5} \times 30\right) \text{crores}$$

$\equiv$ Rs. 4.2 crores

115. (4) Required ratio
= (20 + 12.5) : (10 + 17.5)
= 32.5 : 27.5
= 13 : 11

116. (3) Ratio of expenses on transport and salary
= 12.5 : 20
= 125 : 200
= 5 : 8

117. (4) Total accidents in the city = 25 + 19 + 30 + 43 + 35 + 27 = 179
Accidents in April = 43
$\therefore$ Required per cent

$$= \frac{43}{179} \times 100 = 24\%$$

118. (2) Required per cent

$= \left(\frac{25-19}{25}\right) \times 100$

$= \frac{6}{25} \times 100 = 24\%$

119. (1) Average Number of accidents

$= \frac{179}{6} = 29.83$

Required answer = 43 – 29.83
= 13.17

120. (3) Required per cent

$= \left(\frac{35-27}{35}\right) \times 100$

$= \frac{8}{35} \times 100 = \frac{160}{7}$

$= 22\frac{6}{7}\%$

121. (2) Maximum production = 540
Minimum production = 120
Difference = 540 – 120 = 420

122. (3) Required average

$= \frac{260+540+360+120+200+320}{6}$

$= \frac{1800}{6} = 300$

213. (3) Required ratio
= (260 + 540 + 360) : (120 + 200 + 320)
= 1160 : 640 = 29 : 16

124. (2) Average production on Monday and Tuesday

$= \frac{260+540}{2} = \frac{800}{2} = 400$

Average production of the week = 300
Required difference
= 400 – 300 = 100 fans

125. (3) Total expenditure
= Rs. (80 + 10 + 20 + 10 + 15) lakhs
= Rs. 135 lakhs
Expenditure on miscellaneous items = Rs. 15 lakhs
∴ Required per cent

$= \frac{15}{135} \times 100$

$= \frac{100}{9} = 11\frac{1}{9}\%$

126. (2) Required answer

$= \frac{10}{135} = \frac{2}{27}$

127. (3) Total expenditure
= Rs. 135 lakhs

128. (1) Required ratio
= 20 : 80
= 1 : 4

129. (1) There was steady increase from March to May.

130. (2) Income in February
= Rs. 4 lakhs
Income in March = Rs. 9 lakhs
Required ratio = 9 : 4
It is obvious from the graph.

131. (1) Required answer $= \frac{13}{4}$
= 3.25

132. (3) Average income of the company

$= \text{Rs.} \left(\frac{7+4+9+11+13}{5}\right)$ lakhs

$= \frac{44}{5} = \text{Rs. } 8.8$ lakhs

133. (4) Number of cycles parked from 9 am to 7 pm.
= 95 + 75 + 85 + 65 + 75 + 55 + 65 + 45 + 55 + 35 + 45
= 695
∴ Collected amount
= Rs. 695

134. (4) Required percentage decrease $= \left(\frac{45-25}{45}\right) \times 100$

$= \frac{2000}{45} = 44.44\%$

135. (4) Required average

$= \frac{695+25}{12} = \frac{720}{12} = 60$

136. (4) Required answer = 6 times
i.e., 95, 75, 85, 65, 75 and 65.

137. (2) Required average height

$= \frac{8200+6000+8600+7500+8800+6500}{6}$

$= \frac{45600}{6} = 7600$ metre

138. (2) Height of mountain peak C
= 8600 metre

139. (1) Required ratio
= 8800 : 6000
= 22 : 15

140. (4) The ascending order is :
6000 < 6500 < 7500 < 8200 < 8600 < 8800
Required average

$= \frac{7500+8200}{2}$

$= \frac{15700}{2} = 7850$ metre

TYPE-IV

1. (4) Totat accidents = 230 + 150 + 120 + 160 + 40 + 200 + 100 = 1000
Percentage of accidents involving two-wheelers and two wheelers

$= \frac{230}{1000} \times 100 = 23\%$

Percentage of accidents involving two-wheelers and other objects

$= \frac{770 \times 100}{1000} = 77\%$

∴ Required difference
= 77 – 23 = 54%

2. (3) Two-wheelers + Cars + Buses + Stationary Vehicles
= 230 + 150 + 120 + 100
= 600 ≈ 60%

3. (4) ∵ $1000 \equiv 360°$

∴ $100 \equiv \frac{360}{1000} \times 100 = 36°$

4. (1) Required percentage

$= \frac{40+200}{1000} \times 100$

$= \frac{24000}{1000} = 24\%$

5. (2) Required difference

$= \frac{160-120}{1000} \times 100 = 4\%$

6. (2) Number of Graduate job-seekers in 1974 = 525
Number of Senior secondary job-seekers in
1974 = 1050 – 525 = 525

7. (3) Number of job-seekers :
Year 1973 → 1625
Year 1977 → 4000
Difference = 4000 – 1625 = 2375

8. (4) Number of Matriculate job-seekers :
Year 1976 → 3300 – 1800 = 1500
Year 1977 → 4000 – 2200 = 1800
→ maximum

9. (2) Required number of job-seekers = 1850 – 1050 = 800

10. (3) Required answer

$$= \frac{35\times30}{100} + \frac{35\times15}{100} + \frac{35\times15}{100}$$

$$= \frac{35}{100}(30+15+15)$$

$$= \frac{35\times60}{100} = 21 \text{ lakhs}$$

11. (4) Percentage variation :

$$\text{Model A} \Rightarrow \frac{40-30}{30}\times100 = 33\frac{1}{3}\%$$

$$\text{Model B} \Rightarrow \frac{20-15}{15}\times100 = 33\frac{1}{3}\%$$

$$\text{Model C} \Rightarrow \frac{15-20}{20}\times100 = -25\%$$

12. (1) Required difference

$$= \frac{44\times20}{100} - \frac{35\times15}{100}$$

$$= \frac{880-525}{100} = \frac{355}{100} \text{ lakhs}$$

= 355000

13. (2) Required production

$$= \frac{44\times30}{100} \text{ lakhs}$$

= 1320000

14. (3) Required answer

$$= 35\times\frac{10}{100}\times\frac{15}{100} + 44\times\frac{10}{100}\times\frac{15}{100}$$

$$= \frac{150}{10000}\times79 = 1.1850 \text{ lakhs}$$

= 118500

15. (4) Total students in 2008 = 170
Students passed in 1st division = 20
∴ Required percentage

$$= \frac{20}{170}\times100$$

$$= \frac{200}{17} = 11\frac{13}{17}\%$$

16. (4) Total students who passed in 2008 = 140
∴ Required percentage

$$= \frac{140}{170}\times100$$

$$= \frac{1400}{17} = 82\frac{6}{17}\%$$

17. (1) Percentage of passed candidates :

$$\text{Year 2008} \Rightarrow 82\frac{6}{11}\%$$

$$\text{Year 2009} \Rightarrow \frac{140}{190}\times100$$

= 73.7%

$$\text{Year 2010} \Rightarrow \frac{150}{200}\times100 = 75\%$$

18. (2) Students passed in third division in 2008 = 140 – 80 = 60

19. (1) Required percentage

$$= \frac{60}{200}\times100 = 30\%$$

20. (3) Percentage expenditure on clothes for family B = 15
∴ Required expenditure

$$= \frac{10000\times15}{100} = ₹\ 1500$$

21. (3) Expenditure on education for family A = 20%

$$\text{Required fraction} = \frac{20}{100} = \frac{1}{5}$$

22. (1) Food + clothes + house rent = 30 + 15 + 15 = 60%
∴ Required expenditure

$$= \frac{30000\times60}{100} = ₹\ 18000$$

23. (4) Number of students who stood second in the year 2000 = 50
∴ Required percentage

$$= \frac{50}{160}\times100$$

$$= \frac{125}{4} = 31\frac{1}{4}\%$$

24. (1) Required percentage

$$= \frac{60}{120}\times100 = 50\%$$

25. (2) Number of students who passed with third class in 2002 = 10

26. (3) Number of students who passed with second class in 2002 = 130 – 80 = 50

27. (2) Required ratio = 45 : 30 = 3 : 2

28. (1) Production of sandal perfume remained same.

29. (4) Production of jasmine perfume in 1977 = 30% of 5000

$$= \frac{5000\times30}{100} = 1500 \text{ units}$$

30. (1) Total students in year 2007 = 190
Students who passed in first division = 30
Required percent

$$= \frac{30}{190}\times100 = \frac{300}{19}$$

$$= 15\frac{15}{19}\%$$

31. (3) Total students in the year = 240
Successful students = 180
∴ Required percentage

$$= \frac{180}{240}\times100 = 75\%$$

32. (1) Students who passed in third division in 2006 = 140 – 80 = 60

33. (3) Pass percentage :

$$\text{Year 2006} \Rightarrow \frac{140}{170}\times100$$

≈ 82.35

$$\text{Year 2007} \Rightarrow \frac{150}{190}\times100$$

≈ 78.94
Year 2008 ⇒ 75%

34. (1) Required percent

$$= \frac{200-160}{160}\times100$$

$$= \frac{40}{160}\times100 = 25\%$$

35. (1) Ascending order of yield per acre :
82, 120, 120, 130, 160, 200
∴ Required difference
= [(130 + 160 + 200) – (82 + 120 + 120)]
= (490 – 322) quintals
= 168 quintals

36. (3) Total product per acre
= 490 + 322 = 812 quintal
∴ Required percent

$$= \frac{120}{812}\times100 \approx 14.8\%$$

37. (4) Required average =

$$\left(\frac{80+120+132+120+160+200}{6}\right) \text{ kg.}$$

$$= \frac{812}{6} = \frac{406}{3} = 135\frac{1}{3}\text{kg.}$$

38. (2) Required percent

$$= \frac{200-160}{160} \times 100$$

$$= \frac{40\times100}{160} = 25\%$$

39. (2) Required percent

$$= \frac{132}{812} \times 100 \approx 16.2\%$$

40. (3) Ascending order of yield per acre :

80 < 120 = 120 < 132 < 160 < 200

Required difference

= [(132 + 160 + 200) – (80 + 120 + 120)] kg.

= (492 – 320) kg. = 172 kg.

41. (4) Required answer = $\frac{5040}{3360}$

= 1.5

42. (1) Required percentage increase

$$= \frac{5040-2520}{2520}\times100$$

$$= \frac{2520}{2520}\times100 = 100\%$$

43. (3) Average foreign exchange reserves

$$= \frac{(2640+3720+2520+3360+3120+4320+5040+3120)}{8}$$

million dollar

$$= \left(\frac{27840}{8}\right) \text{ million dollar}$$

= 3480 million dollar

Years that have more than average foreign exchange reserves ⇒ 2007, 2011, 2012

Required ratio = 3 : 5

44. (1) Total exports = Rs. (22.6 + 12.5 + 12.1 + 10.6 + 3.3 + 2.5 + 1.6 × 3 + 1.2) billion

= Rs. 69.6 billion

Total exports to bottom six countries = Rs. (3.3 + 2.5 + 1.6 × 3 + 1.2) billion

= Rs. 11.8 billion

∴ Required ratio = $\frac{11.8}{69.6} \approx \frac{1}{6}$

45. (4) Average exports = $\frac{69.6}{10}$

= Rs. 6.96 billion

Exports to UAE

= Rs. 3.3 billion

46. (1) Required ratio

= (12.5 + 12.1 + 10.6) : (69.6 – 35.2)

= 35.2 : 34 : 4

≈ 35 : 34

47. (3) Required answer = $\frac{10.6}{1.1}$

≈ 10

TYPE-V

1. (2) Required percent increase

$$= \frac{7500-5300}{5300}\times100 = 41.5\%$$

2. (1) Profit in year 1996-97 = Gross Traffic Receipt – Total expenditure

= 8500 – 8000 = 500

Therefore, profit percent of Gross Traffic Receipt

$$= \frac{500}{8500}\times100 = 5.9\%$$

3. (3) Profit percent of Gross Traffic Receipt in year 1997-98

$$= \frac{9400-8800}{9400}\times100 = 6.38\%$$

In year 1995-1996

$$\Rightarrow \frac{7500-5900}{7500}\times 100 = 21.33\%$$

4. (3) Profit percent

$$= \frac{\text{Gross Traffic profit - Total expenditure}}{\text{Gross Traffic profit}}\times100$$

$$\Rightarrow \frac{\text{Total Expenditure}}{\text{Gross Traffic profit}}$$

$$= 1-\frac{10}{100} = 0.9$$

According to question,

Total expenditure = 5800

$$\therefore \text{ Gross Traffic profit } = \frac{5800}{0.9}$$

= ₹ 6444 crores

5. (4) Required increase = ₹ (8800 – 5100) crores = ₹ 3700 crore

6. (1) Growth rate per annum of expense for :

$$1995 \rightarrow \frac{100}{300}\times100 = \frac{100}{3}\%$$

$1996 \rightarrow 0\%$

$$1997 \rightarrow \frac{200}{400}\times100 = 50\%$$

$$1998 \rightarrow \frac{100}{600}\times100 = \frac{50}{3}\%$$

∴ Average

$$= \frac{\frac{100}{3}+50+\frac{50}{3}+0}{4} = 25\%$$

7. (2) It was lowest in 1996 as 3 : 4.

8. (3) Required average

$$= \frac{100-200+200+300}{5}$$

= ₹ 80 crores

9. (2) Profit in

1994 → 100, 1995 → 100, 1996 → – 100

1997 → – 100, 1998 →100

10. (3) Sales : capital in

1994 → 2 : 1,

1995 → 5 : 2,

1996 → 3 : 2,

1997 → 5 : 3,

1998 → 8 : 3

11. (1) In Arts faculty, there was a regular decrease in students' strength as it was 600 in 1990-91, 550 in 1991-92 and 500 in 1992-93.

12. (3) Number of students in all faculties taken together in 1990-91.

= 600 + 400 + 200 + 150

= 1350

Number of students in science faculty = 400

∴ Required percentage

$$= \frac{400}{1350}\times100 = 29.6\%$$

13. (4) Total students' strength in 1991-92

= 550 + 500 + 250 +200 = 1500

Students' strength in commerce in 1991-92 = 250

$$\therefore \text{ Required answer } = \frac{1500}{250} = 6$$

14. (1) Students' strength in Science in 1990-91 = 400
Students' strength in Science in 1992-93 = 600
Increase = 600 – 400 = 200
Per cent increase

$$= \frac{200}{400} \times 100 = 50\%$$

15. (4) Companies with more demand than production are A, C and E.
Companies with more production than demand are B and D.
∴ Required ratio = 3 : 2

16. (3) Average demand

$$= \frac{3300 + 1200 + 3000 + 600 + 2500}{5}$$

$$= \frac{10600}{5} = 2120$$

Average production

$$= \frac{2200 + 2700 + 1500 + 1800 + 1000}{5}$$

$$= \frac{9200}{5} = 1840$$

∴ Required difference
= 2120 – 1840 = 280

17. (3) Required percentage

$$= \frac{600}{2500} \times 100 = 24\%$$

18. (2) Average demand of companies B and D

$$= \frac{1200 + 600}{2} = \frac{1800}{2} = 900$$

Average production of companies B and D

$$= \frac{2700 + 1800}{2} = 2250$$

∴ Required ratio = 900 : 2250
= 2 : 5

19. (4) Required answer $= \frac{6}{15} = 0.4$

20. (3) It is obvious from the graph.

21. (1) Total cotton production in State C = (6 + 11 + 15) lac × 100 kg
= 320000000 kg

22. (2) Required states are B and E.

23. (1) Required difference
= (350 – 250) × thousand tonnes
= 100 thousand tonnes

24. (3) Required ratio

$$= \left(\frac{250 + 500 + 400}{5}\right) : \left(\frac{350 + 400 + 500}{5}\right)$$

= 1150 : 1250 = 23 : 25

25. (1) Required percentage increase

$$= \frac{400 - 350}{350} \times 100 = \frac{100}{7}\%$$

$$= 14\frac{2}{7}\%$$

26. (1) Average production :
Company X

$$= \frac{300 + 450 + 250 + 500 + 400}{5}$$

$$= \frac{1900}{5} = 380 \text{ thousand tonnes}$$

Company Y

$$= \frac{250 + 350 + 350 + 400 + 500}{5}$$

$$= \frac{1850}{5} = 370 \text{ thousand tonnes}$$

Company Z

$$= \frac{350 + 400 + 450 + 350 + 350}{5}$$

$$= \frac{1900}{5} = 380 \text{ thousand tonnes}$$

∴ X & Z has maximum production

27. (1) In 1997,
Gross profit =₹ 50 lakh
Net profit = ₹ 25 lakh

28. (3) Required percentage

$$= \frac{15}{40} \times 100 = 37.5\%$$

29. (4) Required difference

$$= ₹\ \frac{1}{4}\ (20 + 25 + 20 + 25) \text{ lakhs}$$

$$= \frac{1}{4} \times 90 = ₹\ 22.5 \text{ lakhs}$$

30. (1) Gross profit : net profit
In Year 1994 ⇒ 3 : 1
Year 1995 ⇒ 40 : 15 = 8 : 3
Year 1996 ⇒ 45 : 25 = 9 : 5
Year 1997 ⇒ 50 : 25 = 2 : 1

31. (3) Required ratio
= 165 : 75 = 11 : 5

32. (1) Required ratio = 3300 : 2200
= 3 : 2

33. (3) Required percentage

$$= \frac{600}{2500} \times 100 = 24\%$$

34. (2) Required answer

$$= \frac{2700}{1500} = 1.8$$

35. (4) Required ratio = 3 : 2

36. (3) Required difference in profit
= ₹ [(50 – 30) – (40 – 30)] lakh
= ₹ 10 lakh

37. (3) Average income

$$= ₹\left(\frac{30 + 50 + 40 + 60 + 60}{5}\right) \text{lakh}$$

$$= \frac{240}{5} = ₹\ 48 \text{ lakh}$$

In the years 1983, 1985 and 1986, the income were more than the average income.

38. (2) Average profit

$$= ₹\left(\frac{10 + 20 + 10 + 20 + 25}{5}\right) \text{lakh}$$

= ₹ 17 lakh
Required ratio = 48 : 17

39. (1) Required percentage increase

$$= \frac{25 - 10}{10} \times 100$$

$$= \frac{15}{10} \times 100 = 150\%$$

40. (1) Total income = ₹ 240 lakh
Total expenditure = ₹ 155 lakh
∴ Difference = 240 – 155
= ₹ 85 lakhs

41. (3) Required percentage drop

$$= \frac{30 - 22.5}{30} \times 100$$

$$= \frac{7.5}{30} \times 100 = 25\%$$

42. (2) Required difference
= [(12.5 + 27.5 + 30) – (25 + 20)] thousand
= (70 – 45) thousand
= 25 thousand

43. (1) Total production :
Year 1993 ⇒ 65 thousand (least)
Year 1994 ⇒ 75 thousand
Year 1995 ⇒ 85 thousand (maximum
Year 1996 ⇒ 75 thousand
Year 1997 ⇒ 80 thousand

44. (1) It is obvious from above answer

45. (2) Required ratio :

$$\text{Year } 1993 \Rightarrow \frac{30}{65}$$

$$\text{Year } 1994 \Rightarrow \frac{30}{75}$$

$$\text{Year } 1996 \Rightarrow \frac{25}{75}$$

$$\text{Year } 1997 \Rightarrow \frac{22.5}{80}$$

46. (4) January

$$\Rightarrow \frac{2500}{1000} \times 100 = 250\%$$

$$\text{February} \Rightarrow \frac{100}{1300} \times 100 = \frac{100}{13}\%$$

$$\text{April} \Rightarrow \frac{700}{2200} \times 100 \approx 32\%$$

47. (1) Required percentage

$$= \frac{100}{2000} \times 100 = 5\%$$

48. (1) Required answer

$$= \frac{2200}{1000} = 2.2$$

49. (4) Average demand

$$= \frac{8100}{5} = 1620$$

Average production

$$= \frac{6800}{5} = 1360$$

Required difference
= 1620 – 1360 = 260

50. (3) Required ratio = 3 : 2

51. (4) Number of Hindus

$$= 80 \times \frac{25}{100} = 20 \text{ lakhs}$$

52. (1) Percentage decrease

$$= \frac{30 - 15}{30} \times 100 = 50\%$$

53. (2) Required difference = 15%

54. (4) Number of Muslims
= 16 lakhs

55. (1) Legal = $\frac{20}{30} = \frac{2}{3} = 0.67$

$$\text{Clerical} = \frac{30}{35} = 0.86$$

$$\text{Medical} = \frac{10}{20} = \frac{1}{2} = 0.5$$

56. (2) Required percentage

$$= \frac{70 + 80}{205} \times 100 = 73.17\%$$

57. (4) Required ratio
= (75 + 65) : (85 + 95)
= 140 : 180 = 7 : 9

58. (1) Average sales of stores B_1, B_2 and B_3 in 2001

$$= \frac{105 + 65 + 110}{3} = \frac{280}{3}$$

Average sales of stores B_1, B_3 and B_6 in 2000

$$= \frac{80 + 95 + 70}{100} = \frac{245}{3}$$

Required percentage

$$= \frac{245}{280} \times 100 = 87.5\%$$

59. (2) Required average

$$= \frac{80 + 75 + 95 + 85 + 75 + 70}{6}$$

$$= \frac{480}{6} = 80$$

60. (1) Year 2007
Decrease%

$$= \frac{60 - 50}{60} \times 100 = 16\frac{2}{3}\%$$

61. (3) Required percentage

$$= \frac{60 + 60}{50 + 40} \times 100$$

$$= \frac{120 \times 100}{90} = 133.3\%$$

62. (2) Total production :
Flavour P = 300 lakh bottles
Flavour Q = 325 lakh bottles
Flavour R = 300 lakh bottles

63. (2) Percentage decrease

$$= \frac{60 - 40}{60} \times 100 = 33\frac{1}{3}\%$$

or 33.33%

64. (4) Average production of flavour Q during 2008, 2009 and 2010

$$= \frac{55 + 50 + 55}{3}$$

$$= \frac{160}{3} \text{ lakh bottles}$$

Average production of flavour P in 2005, 2006 and 2007

$$= \frac{50 + 40 + 55}{3}$$

$$= \frac{145}{3} \text{ lakh bottles}$$

$$\text{Difference} = \frac{160}{3} - \frac{145}{3}$$

$$= \frac{15}{3} = 5 \text{ lakh bottles}$$

65. (3) Total income
= ₹ 30.75 thousand

$$\text{Average} = \frac{30.75}{5}$$

= ₹ 6.15 thousands = ₹ 6150

66. (4) Income range
= ₹ (8.75 – 4.25) thousand
= ₹ 4500

67. (3) Required ratio = 30 : 45
= 2 : 3

68. (2) Hindus + Muslims

$$= \frac{500000 \times 55}{100} = 275000$$

69. (4) Hindus = $\frac{5000000 \times 35}{100}$
= 1750000

70. (4) Total students in 2001 – 2002
= 1350
∴ Required percentage

$$= \frac{400}{1350} \times 100 = 29.6\%$$

71. (3) Total students in 2003-04
= 1600
∴ Required percentage

$$= \frac{250}{1600} \times 100 = 15.6\%$$

72. (2) Required percentage increase

$$= \frac{600 - 400}{400} \times 100 = 50\%$$

73. (3) Required percentage

$$= \frac{35}{85 + 35} \times 100$$

$$= \frac{35}{120} \times 100 \approx 29\%$$

74. (1) Required ratio
= 70 : 40 = 7 : 4

75. (4) Required ratio
= 50 : 85 = 10 : 17

76. (4) Difference in 2010
= 85 – 35 = 50 million

77. (1) It is obvious from the graph.

78. (1) Required average

$$= \left(\frac{5 + 4 + 4 + 3 + 4}{5}\right) \text{ million}$$

tonnes = 4 million tonnes

79. (1) Percentage increase :
In Year 1996

$$\Rightarrow \frac{(225 - 120)}{120} \times 100 \approx 87.5\%$$

In Year 1997

$$\Rightarrow \frac{(375 - 225)}{225} \times 100 \approx 67\%$$

80. (4) Average of total investment

$= \frac{1}{6}(120 + 225 + 375 + 330 + 525 + 420)$

$= \frac{1}{6} \times 1995 =$ ₹ 332.5 lakhs

Average value of sales

$= \frac{1}{6}(200 + 300 + 500 + 400 + 600 + 460)$

$= \frac{1}{6} \times 2460$

= ₹ 410 lakhs

Difference = 410 – 332.5

= ₹ 77.5 lakh

81. (1) Students in arts = 2400

Students in commerce = 1000

Ratio = 2400 : 1000 = 24 : 10

= 12 : 5

82. (2) Percentage increase in Science students

$= \frac{500 - 450}{450} \times 100$

$\frac{100}{9} = 11.1\%$

83. (2) It is obvious from the bar diagram. The bar of West Bengal (W.B.) is lowest.

84. (2) The bar of West Bengal is the largest.

85. (2) Total production of rice = 24 million tonnes

Haryana's share $= \frac{2}{24} = \frac{1}{12}$

86. (3) Total production of rice and wheat is least in

Maharashtra 5 million tonnes

87. (4) Uttar Pradesh (UP) produces 16 million tonnes of wheat that is largest.

88. (3) Required percentage

$= \frac{600}{2500} \times 100 = 24\%$

89. (3) Average demand = 2120

Average production = 1840

Difference = 2120 – 1840 = 280

90. (2) Required ratio

$= \left(\frac{1500 + 1800 + 1000}{3}\right) : \left(\frac{2700 + 2200}{2}\right)$

$= 2 \times 4300 : 4900 \times 3$

= 86 : 147

91. (4) Required ratio = 3 : 2

92. (3) Required answer

$= \frac{2700}{1500} = \frac{9}{5} = 1.8$

93. (1) Required average price

$= \frac{1}{2}(33 \times 120 + 33 \times 120)$

$= \frac{1}{2} \times 120 \times 66 =$ ₹ 3960

94. (2) Required cost of wheat

= 36 × 156 = ₹ 5616

95. (2) Required number of students in 2002

= 15 + 60 + 120 = 195

96. (2) Required % increase

$= \frac{120 - 120}{120} \times 100 = 0$

97. (1) Number of students :

Year 2000 ⇒ 20 + 50 + 90 = 160

Year 2001 ⇒ 30 + 60+110= 200

Year 2002 ⇒ 195

Year 2003 ⇒ 170

98. (3) Required ratio = 50 : 160

= 5 : 16

99. (4) It is obvious from the graph.

Minimum sales in 1989

= 60 lakh bottles.

100. (1) Average annual sales during 1988 – 1993 :

cool sip ⇒

$\left(\frac{25 + 6 + 19 + 15 + 25 + 30}{6}\right)$

$= \frac{120}{6} = 20$ lakh bottles

Pep – up ⇒

$\left(\frac{30 + 35 + 30 + 25 + 20 + 20}{6}\right)$

$= \frac{160}{6} = 26\frac{2}{3}$ lakh bottles.

101. (2) Sales of Pep – up :

Year 1989 ⇒ 35 lakh bottles

Year 1990 ⇒ 30 lakh bottles

∴ Required percent

$= \frac{35 - 30}{35} \times 100$

$= \frac{100}{7} \approx 14\ \%$

102. (*) Sales of Cool – sip in 1989 = 6 lakh bottles

Sales in 1990 = 19 lakh bottles

Required percent

$= \frac{19 - 6}{6} \times 100$

$= \frac{1300}{6} \approx 217$

103. (2) Sales of Dew - drop in 1992 = 30 lakh bottles.

104. (4) Average annual sales of Dew - drop

$= \left(\frac{10 + 15 + 25 + 15 + 30 + 25}{6}\right)$

$= \frac{120}{6} = 20$ lakh bottles.

Average annual sales of Cool - sip = 20 lakh bottles.

105. (1) Profit of company during 2007 = 45 – 40 = ₹ 5 crore

Profit of company during 2008 = 60 – 50 = ₹10 crore

Difference = 10 – 5 = ₹ 5 crore

106. (3) Average expenditure of company

$= ₹ \frac{1}{5}$ (25+40+40+50+55) crore

$= \frac{210}{5} =$ ₹ 42 crore

Required answer

⇒ Year 2008 and 2009

107. (3) Required percentage increase

$= \frac{(60 - 45)}{45} \times 100$

$= \frac{100}{3} = 33\frac{1}{3}\%$

108. (2) Total income of company

= ₹ (35 + 50 + 45 + 60 + 60) crore

= ₹ 250 crore

Total expenditure of company

= ₹ 210 crore

Required ratio = 250 : 210

= 25 : 21

109. (3) Number of wrist watches sold in 2010 = 28.7 lakhs

Number of table clocks sold in 2010 = 22.3 lakhs

$\therefore$ Required per cent

$$= \left(\frac{28.7 - 22.3}{22.3}\right) \times 100$$

$$= \frac{6.4}{22.3} \times 100 \approx 28.7\%$$

110. (4) Required ratio = 3.5 : 9.5 = 7 : 19

111. (2) Required per cent

$$= \frac{30.7 - 9.5}{30.7} \times 100$$

$$= \frac{21.2 \times 100}{30.7} = 69.05\%$$

112. (4) Here, decrease is evident from bar diagram.

Wrist watches : 21.3 $\Rightarrow$ 28.7 lakhs

Table clocks 9.5 $\Rightarrow$ 22.3 lakhs

Wall clocks 30.7 $\Rightarrow$ 32.7 lakhs

113. (1) Percentage increase in the sales of table clocks

$$= \frac{(22.3 - 9.5)}{9.5} \times 100$$

$$= \frac{12.8}{9.5} \times 100 \approx 135$$

114. (4) More demand than production in companies A, C and E

Less demand than production in companies B and D = B

Required ratio = 3 : 2

115. (3) Required difference

$$= \left(\frac{3300 + 1200 + 3000 + 600 + 2500}{5}\right)$$

$$- \left(\frac{2200 + 2700 + 1500 + 1800 + 1000}{5}\right)$$

= 2120 – 1840 = 280

116. (2) Required percentage

$$= \frac{600}{2500} \times 100 = 24$$

117. (2) Required ratio = 900 : 2250 = 2 : 5

118. (1) Ratio of demand and production :

Company E $\Rightarrow \frac{2500}{1000} = 2.5$

Company C $\Rightarrow \frac{3000}{1500} = 2$

Company A $\Rightarrow \frac{3300}{2200} = 1.5$

119. (2) Required answer

$$= \frac{9}{12} = \frac{3}{4}$$

= 0.75

120. (3) Total production of state B = 12 + 18 + 18 = 48 lakh bales

Total production of state A = 6 + 14 + 21 = 41 lakh bales

121. (4) Average production in 1992–93 $= \frac{6 + 12 + 5 + 9 + 8}{5}$

$$= \frac{40}{5} = 8 \text{ lakh bales}$$

Average production in 1993-94

$$= \frac{14 + 18 + 9 + 9 + 14}{5}$$

$$= \frac{64}{5} = 12.8 \text{ lakh bales}$$

Required answer $\Rightarrow$ state A

122. (2) Required average production

$$= \frac{21 + 18 + 15 + 12 + 7}{5}$$

$$= \frac{73}{5} = 14.6 \text{ lakh bales}$$

123. (2) Percentage increase in Maths is maximum.

124. (3) Percentage increase

$$= \left(\frac{265 - 248}{248}\right) \times 100$$

$$= \frac{1700}{248} = 6.85\%$$

125. (2) Required percentage increase

$$= \frac{(2580 - 2170) \times 100}{2170}$$

$$= \frac{41000}{2170} = 18.89\%$$

126. (1) Required percentage increase

$$= \frac{(1454 - 1240) \times 100}{1240}$$

$$= \frac{21400}{1240} = 17.26\%$$

127. (3) Required percentage increase

$$= \frac{(2230 - 1870)}{1870} \times 100$$

$$= \frac{36000}{1870} = 19.25\%$$

128. (4) Total sale of branches B1, B3 and B5 together for both the years = (80 + 105 + 95 +110 + 75 + 95) thousands = 560 thousands

129. (4) Required ratio = (75 + 65) : (85 + 95) = 140 : 180 = 7 : 9

130. (1) Average sale of branches B1, B2 and B3 in 2001

$$= \frac{105 + 65 + 110}{3}$$

$$= \frac{280}{3} \text{ thousand}$$

Average sale of branches B1, B3 and B6 in 2000

$$= \left(\frac{80 + 95 + 70}{3}\right) \text{Thousand}$$

$$= \frac{245}{3} \text{ Thousand}$$

$\therefore$ Required percentage

$$= \frac{\frac{245}{3}}{\frac{280}{3}} \times 100$$

$$= \frac{24500}{280} = 87.5\%$$

131. (1) Required percentage

$$= \frac{(110 - 65)}{65} \times 100$$

$$= \frac{45 \times 100}{65} = 69.2\ \%$$

132. (1) Girls in Biology = 300

Girls in all other departments

= 140 + 180 + 260 + 220 = 800

∴ Required percentage

$$= \frac{300}{800} \times 100$$

$$= \frac{75}{2} = 37\frac{1}{2}\%$$

133. (4) Total number of boys

= 60 + 220 + 100 + 160 + 120

= 660

Total number of girls = 1100

Required difference

= 1100 – 660 = 440

134. (2) Average number of boys

$$= \frac{660}{5} = 132$$

135. (3) Boys in Biology = 220

∴ Required percentage

$$= \frac{220}{660} \times 100 = \frac{100}{3} = 33\frac{1}{3}\%$$

136. (1) Required ratio = 140 : 220

= 7 : 11

137. (1) From class IX 75 students participated in exhibition.

138. (3) Average number of students participating in cultural events

$$= \frac{60 + 45 + 45 + 30}{4}$$

$$= \frac{180}{4} = 45$$

139. (2) Average number of students

Participating in exhibition

$$= \frac{45 + 30 + 60 + 75}{4} = \frac{210}{4}$$

= 52.5

140. (1) Required ratio

= 75 : (75 + 30)

= 75 : 105

= 5 : 7

141. (2) Total number of participants in cultural events = 180

Students of class VIII = 45

Required percentage

$$= \frac{45}{180} \times 100 = 25\%$$

142. (2) Required ratio

= (100 + 160) : (180 + 60)

= 260 : 240 = 13 : 12

143. (3) Boys who use smart phones

= 100 + 160 + 240 + 40 = 540

∴ Required percentage

$$= \frac{100}{540} \times 100$$

= 18.52%

144. (4) Girls who use smart phones

= 180 + 60 + 120 + 20 = 380

∴ Required percentage

$$= \frac{120}{380} \times 100$$

= 31.58%

145. (3) Required difference

= (240 + 120) – (100 + 180)

= 360 – 280 = 80

146. (2) Profit of company :

Year 2006 ⇒ 60 – 35

= Rs. 25 crore

Year 2007 ⇒ 50 – 40

= Rs. 10 crore

Difference = 25 – 10

= Rs. 15 crore

147. (3) Average income of company

$$= \text{Rs.} \left(\frac{40 + 60 + 50 + 65 + 70}{5}\right) \text{crore}$$

$$= \frac{285}{5} = \text{Rs. 57 crore}$$

Required years ⇒ 2005 and 2007

148. (2) Required percent increase

$$= \frac{50 - 40}{40} \times 100$$

$$= \frac{100}{4} = 25\%$$

149. (3) **Profit of company :**

Year 2005 ⇒ 40 – 30

= Rs. 10 crore

Year 2006 ⇒ Rs. 25 crore

Year 2007 ⇒ 10 crore

Year 2008 ⇒ 65 – 50

= Rs. 15

Year 2009 ⇒ 70 – 60

= Rs. 10 crore

150. (1) Required ratio

= (75 + 65) : (85 + 95)

= 140 : 180 = 7 : 9

151. (2) Total sales of branch B 6 for both the years

= 70 + 80 = 150 thousand

Total sales of branch B 3 for both the years

= 95 + 110 = 205 thousand

$$\therefore \ 205 \times \frac{x}{100} = 150$$

$$\Rightarrow x = \frac{150 \times 100}{205} = 73.17\%$$

152. (2) Total sales of branches B1, B2 and B3 in 2010 = 105 + 65 + 110 = 280 thousand

Total sales of branches B1, B3 and B6 in 2009 = 80 + 95 + 70

= 245 thousand

$$\therefore \ \frac{280}{3} \times \frac{x}{100} = \frac{245}{3}$$

$$\Rightarrow x = \frac{245 \times 100}{280} = 87.5\%$$

153. (3) Average sales of all the branches in 2009 = $\frac{1}{6}$ (80 + 75 + 95 + 85 + 75 + 70) thousand

$$= \frac{1}{6} \times 480 = 80 \text{ thousand}$$

154. (4) Total sales of branches B1, B3 and B5 for both the years

= (80+105 + 95 + 110 + 75 + 95) thousand

= 560 thousand

155. (3) Required ratio = 100 : 70

= 10 : 7

156. (4) Required average

$$= \frac{80 + 80 + 75 + 65 + 60}{5}$$

$$= \frac{360}{5} = 72$$

157. (1) Total number of all products produced in 2006 and 2008 together

= (10 + 7.5 + 15 + 25 + 30 + 20) × 1000

= 107.5 × 1000 = 107500

158. (3) Average number of pen drives

$$= \frac{1}{5}(15 + 7.5 + 15 + 30 + 17.5) \times 1000$$

$$= \frac{85000}{5} = 17000$$

159. (4) Required difference
$= (25 + 30 - 15) \times 100$
$= 40000$

160. (3) Required ratio
$= 15 : 30 : 20$
$= 3 : 6 : 4$

161. (1) Required ratio $= 22.5 : 25$
$= 225 : 250$
$= 9 : 10$

162. (*) Value per lakh bags :

Year 2000 $\Rightarrow \frac{500}{200}$ = Rs. 2.5 crore

Year 2001 $\Rightarrow \frac{120}{50}$ = Rs. 2.4 crore

Percentage decrease

$$= \frac{2.5 - 2.4}{2.5} \times 100 = 4\%$$

163. (1) Required difference
$= (200 - 100)$ lakhs
$= 100$ lakhs
$= 10000000$

164. (3) Value per lakh bags

Year 2001 $\Rightarrow \frac{120}{50}$ = Rs. 2.4 crores

Year 1999 $\Rightarrow \frac{150}{100}$ = Rs. 1.5 crores

Year 1996 $\Rightarrow \frac{150}{120}$ = Rs. 1.25 crores

Year 1997 $\Rightarrow \frac{260}{130}$ = Rs. 2 crores

165. (*) Percentage increase

$$= \frac{150 - 130}{130} \times 100$$

$$= \frac{200}{13} \approx 15.4\%$$

166. (3) Total production of electronic items :

Year 2009 $\Rightarrow 6000 + 7000 = 13000$

Year 2010 $\Rightarrow 9000 + 9400 = 18400$

Year 2011 $\Rightarrow 13000 + 9000$

$= \boxed{22000}$

year 2012 $\Rightarrow 11000 + 10000$
$= 21000$

Year 2013 $\Rightarrow 8000 + 12000 = 20000$

167. (1) Required Ratio
$= 9000 : 12000 = 3 : 4$

168. (4) Average production of T.V. from 2009 to 2012

$$= \frac{6000 + 9000 + 13000 + 11000}{4}$$

$$= \frac{39000}{4} = 9750$$

Average production of LCD from 2009 to 2012

$$= \frac{7000 + 9400 + 9000 + 10000}{4}$$

$$= \frac{35400}{4} = 8850$$

Required difference
$= 9750 - 8850 = 900$

169. (3) Required ratio
$= 6000 : 9000 = 2 : 3$

170. (1) Required average runs

$$= \frac{60 + 80}{2} = \frac{140}{2} = 70$$

The required cricketer is M.S. Dhoni.

171. (4) The required cricketer is Cheteshwar Pujara.
$\therefore$ Required average runs

$$= \frac{70 + 10}{2} = \frac{80}{2} = 40$$

172. (2) Required total score
$= 60 + 50 + 70 + 30 = 210$

173. (1) Required average score

$$= \frac{80 + 50 + 10 + 20}{4} = \frac{160}{4}$$

$= 40$

174. (3) Average units consumption in 2012

$$= \frac{600 + 700 + 400 + 300 + 200}{5}$$

$$= \frac{2200}{5} = 440 \text{ units}$$

Required months $\Rightarrow$ July, August

175. (*) Average units consumption in the year 2013

$$= \frac{550 + 500 + 400 + 350 + 500}{5}$$

$$= \frac{2300}{5} = 460 \text{ units.}$$

176. (4) In the month of November,
Difference $= 500 - 200 = 300$ units
In the month of August,
Difference $= 700 - 500 = 200$ units.

177. (*) Total consumption in 2012 = 2200 units
Total consumption in 2013
= 2300 units
Percentage increase

$$= \left(\frac{2300 - 2200}{2200}\right) \times 100$$

$$= \frac{100}{22} = \frac{50}{11} = 4.5\%$$

178. (2) Percentage increase

Year 2010 $\Rightarrow \frac{70 - 64}{64} \times 100$

≈ 9.4
Year 2011

$\Rightarrow \frac{77 - 70}{70} \times 100 = 10$

Year 2012 $\Rightarrow \frac{85 - 77}{77} \times 100$

≈ 10.4

179. (1) Required average production

$$= \left(\frac{72 + 90 + 100}{3}\right) \text{ thousands}$$

$$= \frac{262}{3} = 87.33 \text{ thousands}$$

180. (2) Required average

$$= \left(\frac{70 + 77 + 85 + 93}{4}\right) \text{ thousands}$$

$$= \frac{325}{4} = 81.25 \text{ thousands}$$

181. (3) Required ratio

$$= \left(\frac{64 + 70}{2}\right) : \left(\frac{72 + 80}{2}\right)$$

$= 67 : 76$

182. (*) Total income
= Rs. (35 + 50 + 40 + 40 + 50) crores = Rs. 215 crores
Total expenditure
= Rs. (45 + 40 + 45 + 30 + 45) crores
= Rs. 205 crores
∴ Profit percent

$$=\left(\frac{\text{Income} - \text{Expenditure}}{\text{Expenditure}}\right)\times 100$$

$$= \frac{215-205}{205} \times 100$$

$$= \frac{1000}{205} = 4.88\%$$

183. (*) Income of company Q in 2000

$$= \frac{100}{110} \times 40 = \text{Rs. } \frac{400}{11} \text{ crores}$$

If expenditure in 2000 be Rs. x crores,
Profit% =

$$\left(\frac{\text{Income} - \text{Expenditure}}{\text{Expenditure}}\right) \times 100$$

$$= \frac{\frac{400}{11} - x}{x} \times 100$$

$$\Rightarrow \frac{20}{100} = \frac{1}{5} = \frac{400 - 11x}{11x}$$

$$\Rightarrow 5 \times 400 - 55x = 11x$$

$$\Rightarrow 66x = 2000$$

$$\Rightarrow x = \frac{2000}{66}$$

= Rs. 30.30 crores

184. (1) It is obvious from bar diagram.
Profit percent of company Q.

$$= \frac{40-30}{30} \times 100$$

$$= \frac{100}{3} = 33\frac{1}{3}\%$$

185. (1) Total income of companies M and N
= Rs. (35 + 50) crores
= Rs. 85 crores
Total expenditure
= Rs. (45 + 40) crores
= Rs. 85 crores

186. (*) Expenditure of company R in 2000

$$\equiv \frac{45 \times 100}{120} = \text{Rs. } 37.5 \text{ crores}$$

Let the income of company in 2000 be Rs. x crores.

$$\therefore \ 10 = \frac{x - 37.5}{37.5} \times 100$$

$$\Rightarrow x - 37.5 = \frac{37.5 \times 10}{100} = 3.75$$

$$\Rightarrow x = 37.5 + 3.75$$

= Rs. 41.25 crores

187. (2) Difference between demand and production of company A = 3000 – 1500 = 1500
Difference between production and demand of company D
= 2700 – 1200 = 1500

188. (1) According to the question,

$$\frac{2500 \times x}{100} = 600$$

$$\Rightarrow 25x = 600$$

$$\Rightarrow x = \frac{600}{25} = 24$$

189. (4)

$$h = \frac{\text{Production of company D}}{\text{Production of company A}}$$

$$= \frac{2700}{1500} = \frac{9}{5} = 1.8$$

190. (2) Total production = 1500 + 1800 + 1000 + 2700 + 2200 = 9200
Total demand = 3000 + 600 + 2500 + 1200 + 3300 = 10600
Required difference

$$= \frac{1}{5}(10600 - 9200)$$

$$= \frac{1}{5} \times 1400 = 280$$

191. (3) Required ratio = 3 : 2

192. (2) Percentage of production of company Z to that of company Y :

Year 1998 $\Rightarrow \frac{45}{35} \times 100$

$\approx 129\%$

Year 1996 $\Rightarrow \frac{35}{25} \times 100$

= 140%

193. (2) Average production during 1998 – 2000 :
Company X

$$\Rightarrow \left(\frac{25+50+40}{3}\right) \text{ lakh tonnes}$$

$$= \frac{115}{3} \text{ lakh tonnes}$$

Company Y

$$\Rightarrow \left(\frac{35+40+50}{3}\right) \text{ lakh tonnes}$$

$$= \frac{125}{3} \text{ lakh tonnes}$$

$$\text{Required ratio} = \frac{115}{3} : \frac{125}{3}$$

= 23 : 25

194. (1) Average production for 5 years :
Company X

$$\Rightarrow \left(\frac{30+45+25+50+40}{5}\right)$$

lakh tonnes

$$\Rightarrow \frac{190}{5} = 38 \text{ lakh tonnes}$$

Company Y

$$\Rightarrow \left(\frac{25+35+35+40+50}{5}\right)$$

lakh tonnes

$$= \frac{185}{5} = 37 \text{ lakh tonnes}$$

Company Z

$$\Rightarrow \left(\frac{35+40+45+35+35}{5}\right)$$

lakh tonnes

$$= \frac{190}{5} = 38 \text{ lakh tonnes}$$

195. (1) Required percentage increase

$$= \left(\frac{40-25}{25} \times 100\right)$$

$$= \frac{15 \times 100}{25} = 60\%$$

196. (4) Required difference
= (45 – 25) lakh tonnes
= 2000000 tonnes

197. (2) Total votes received by X
= 45 + 73 + 51 + 56 = 225
Total votes
= (41 + 97 + 52 + 59) + 225

= 474

∴ Required per cent

$= \frac{225}{474} \times 100 \approx 47.5\%$

198. (1) Required per cent

$= \frac{23}{474} \times 100 \approx 4.9\%$

199. (2) Required per cent

$= \frac{88-73}{73} \times 100$

$= \frac{1500}{73} \approx 21\%$

200. (3) Required per cent

$= \frac{73}{225} \times 100 \approx 32$

201. (3) Difference between male and female students in statistics = 16 – 15 = 1

202. (4) Difference of the choices of subject between male and female students chemistry

= 61 – 24 = 37

203. (3) In Economics and Mathematics :

Total male students

= 30 + 32 = 62

Total female students

= 20 + 34 = 54

Difference = 62 – 54 = 8

∴ Required percent

$= \frac{8}{54} \times 100$

= 14.8% more

204. (4) It is obvious from the bardiagram.

The percentage of females in Chemistry is least.

205. (4) The number of children in respective standard is not known.

206. (2) Number of students admitted in 2001 = 9000

Number of students admitted in 2003 = 12000

Percentage increase

$= \frac{12000-9000}{9000} \times 100$

$= \frac{100}{3}\% = 33.3\%$

207. (4) From 2000 to 2003,

Total students admitted

= (6 + 9 + 8 + 12) thousands

= 35 thousands

Total students passed

= (4 + 6 + 6 + 9) thousands

= 25 thouseands

∴ Required ratio = 25 : 35

= 5 : 7

208. (1) Passing percentage in 2000

$= \frac{4}{6} \times 100$

$= \frac{200}{3} = 66\frac{2}{3}\%$

Passing percentage in 2001

$= \frac{6}{9} \times 100 = \frac{200}{3} = 66\frac{2}{3}\%$

209. (2) Required ratio = $8 : \frac{9+9}{2}$

= 8 : 9

210. (2) Required average

$= \frac{90+75}{2} = \frac{165}{2} = 82.5$

211. (3) Difference between the marks in Biology

= 85 – 60 = 25

Difference between the marks in Maths = 100 – 80

= 20

212. (4) Required percent

$= \left(\frac{70+65}{200}\right) \times 100 = \frac{135}{2}$

= 67.5%

213. (3) Required ratio

$= \frac{85+60}{2} : \frac{70+100}{2}$

= 145 : 170 = 29 : 34

214. (4) Required percentage increase

$= \left(\frac{36.2-26.6}{26.6}\right) \times 100$

$= \frac{9.6 \times 100}{26.6} \approx 36\%$

215. (3) Change in world = 16 – 14.6 = 1.4

216. (1) USA had better control on inflation.

217. (2) Percentage increase

$= \left(\frac{36.2-16}{16}\right) \times 100$

$= \frac{20.2 \times 100}{16} = 126.25$

≈ 126

218. (1) Required answer = (40 + 30 + 60 + 20 + 10 + 20) thousand

= 180000

219. (4) Required ratio = 30 : 40

= 3 : 4

220. (2) Required ratio = 40 : 50 : 40

= 4 : 5 : 4

221. (2) Required ratio

$= \frac{30+60+10}{3} : \frac{40+20+20}{3}$

= 100 : 80 = 5 : 4

222. (3) Required answer

= 14000 – 12000 = 2000

223. (3) Required total enrolment

= {(8 + 10) + (14 +12) + (12 + 14)} thousands

= (18 + 26 + 26) thousands

= 70 thousands

224. (4) Required ratio

= (8 + 12) : (10 + 14)

= 20 : 24

= 5 : 6

225. (2) Required total collected amount as fees

= Rs. (12000 × 6500)

= Rs. 78000000

226. (1) The number of students in arts decreased regularly.

227. (1) Required percentage increase

$= \frac{600-400}{400} \times 100$

$= \frac{200}{4} = 50\%$

228. (2) Required ratio

= (200 + 250 + 250) : (150 + 200 + 250)

= 700 : 600 = 7 : 6

229. (3) Number of students in arts during 1992–93 = 300

Year 1990–91 ⇒ 600

Year 1991–92 ⇒ 550

230. (1) Total population in 1991

= (44 + 41) crores

= 85 crores

∴ Required per cent

$= \frac{41}{85} \times 100 \approx 48.23\%$

231. (3) Number of men per thousand women in 1971

$= \frac{28}{26} \times 100 \approx 1077$

232. (*) Required ratio

$= \frac{21}{23} \times 1000 : \frac{44}{41} \times 100$

= 21 × 41 : 44 × 23

= 861 : 1012

233. (2) Total population in 1981
= 35 + 33 = 68 crores
Total population in 1991
= 44 + 41 = 85 crores
Percentage increase

$$= \frac{85-68}{68} \times 100$$

$$= \frac{1700}{68} = 25\%$$

$\therefore$ Total population in 2001
= 125% of 85 crores

$$= \left(\frac{85 \times 125}{100}\right) \text{crores}$$

= 106.25 crores

234. (2) Total number of students :
Science $\Rightarrow$ 400 + 400 + 450 + 500 = 1750
Commerce $\Rightarrow$ 200 + 250 + 300 + 250 = 1000

$\therefore$ Required ratio = $\frac{1750}{4} : \frac{1000}{4}$

= 7 : 4

235. (3) Required percentage increase

$$= \left(\frac{700-550}{550}\right) \times 100$$

$$= \frac{1500}{55} = 27.27\%$$

236. (*) Total number of students in during 2006-07
= 550 + 450 + 300 = 1300
$\therefore$ Required per cent

$$= \frac{450}{1300} \times 100 = \frac{450}{13} = 34.6\%$$

237. (4) Total number of students :
Session 2004-05 $\Rightarrow$ 600 + 400 + 200 = 1200
Session 2007-08 $\Rightarrow$ 700 + 500 + 250 = 1450
Percentage increase

$$= \left(\frac{1450-1200}{1200}\right) \times 100$$

$$= \frac{250}{12} = 20.83\%$$

238. (3) Total number of men
= (3500 + 4500 + 4700 + 2250 + 3250)
= 18200
Total number of women
= 3000 + 3500 + 4000 + 1500 + 3700
= 15700
Difference = 18200 – 15700
= 2500

239. (3) Average number of women =

$$\frac{15700}{5} = 3140$$

Number of men in organisation D = 2200
Required per cent

$$= \frac{3140-2250}{2250} \times 100$$

$$= \frac{8900}{225} \approx 40\%$$

240. (4) Required ratio
= (3500 + 4000) : (2250 + 3250)
= 7500 : 5500
= 15 : 11

241. (1) Required per cent

$$= \frac{3500+4500}{10200} \times 100$$

$$= \frac{8000}{102} \approx 78.4$$

242. (*) Required ratio

$$= \frac{3000+3500+4000}{3}$$

$$: \frac{4700+2250+3250}{3}$$

= 3500 : 3400 = 35 : 34

TYPE-VI

1. (4) Required number of students
= 4 + 7 + 5 = 16
2. (3) Number of failures = 2 + 6 + 10 = 18
3. (2) Number of successful students = 45 – 18 = 27
$\therefore$ Required percentage

$$= \frac{27}{45} \times 100 = 60\%$$

4. (1) It is obvious from the histogram.
5. (1) Bar of class interval 30–40
6. (3) Required number of persons
= 450 + 250 + 150 + 75 + 50 + 25 = 1000
7. (2) Required answer
= 250 + 150 = 400
8. (3) Required ratio = 250 : 75
= 10 : 3
9. (2) Age group 15 – 20 $\rightarrow$ 450

$$\Rightarrow \frac{450}{500} = \frac{9}{10}$$

10. (4) Required percentage

$$= \frac{25}{500} \times 100 = 5\%$$

11. (3) Total number of workers
= 3 + 8 + 5 + 4 + 9 + 8 + 6 + 7
= 50
12. (1) Required ratio = 3 : 7
13. (2) Required amount
= 3000 + 8800 + 6000 + 5200 + 12600 + 12000 + 9600 + 11900 + 50 × 50 = ₹ 71600
14. (1) Wage group – 1400 – 1500
Amount = 1450 × 9 = ₹ 13050
15. (3) Number of students
= 2 + 8 = 10
16. (3) Students obtaining above 60 = 35
$\therefore$ Required percentage

$$= \frac{35}{50} \times 100 = 70\%$$

17. (1) Required number of students
= 4 + 6 + 10 + 8 + 5 = 33
18. (2) Students in class interval 20 – 30 = 10
19. (4) Required class interval
= 0 – 10
20. (3) Required ratio = 4 : 5
21. (1) Required percentage increase

$$= \frac{1000-400}{400} \times 100$$

$$= \frac{600}{4} = 150\%$$

22. (1) Required percentage decrease

$$= \frac{900-800}{900} \times 100$$

$$= \frac{100}{9} = 11\frac{1}{9}\%$$

23. (1) Percentage increase :
Year 2007 – 2008

$$\Rightarrow \frac{200}{1000} \times 100 = 20\% \text{ (lowest)}$$

Year 2006 – 2007

$$\Rightarrow \frac{200}{800} \times 100 = 25\%$$

24. (4) Required percentage increase

$$= \frac{1200-600}{600} \times 100 = 100\%$$

25. (3) Required average

$$= \frac{100+220+300+200+250}{5}$$

$$= \frac{1070}{5} = 214$$

26. (3) Number of families = 15 + 10 + 40 + 5 + 20 + 30 + 15 + 10 + 40 + 15 = 200

27. (2) Required number of families = 40 + 15 = 55

28. (1) Required number of families = 15 + 10 = 25

29. (4) Required answer = 55

30. (2) Required percentage

$= \frac{90}{200} \times 100 = 45\%$

31. (3) Required number of students = 25 + 7 + 4 + 2 = 38

32. (3) Required number of students = 6 + 8 = 14

33. (2) Number of students in 150 – 160 class interval = 25

34. (2) Required answer = 4 patients

35. (4) Required answer = 4 + 3 + 2 + 1 = 10

36. (1) Required answer = 8 + 7 + 5 = 20

37. (3) Total number of patients = 1 + 4 + 8 + 7 + 5 + 4 +3 + 2 + 1 = 35

Patients of age less than 45 years = 1 + 4 + 8 = 13

Required percent

$= \frac{13}{35} \times 100 \approx 37\ \%$

38. (4) 11% of 35 = $\frac{35 \times 11}{100}$

$= 3.85 \approx 4$

Patients between 35 years and 40 years = 4

Patients between 55 years and 60 years = 4

39. (3) Number of workers who earn more than Rs. 950 = 10 + 5 + 3 + 3 + 5 = 26

40. (1) Number of workers who earn less than Rs. 950 = 3 + 2 + 4 + 9 + 5 = 23

41. (3) Total number of workers surveyed = 26 + 23 = 49

42. (1) Required number of workers = 5 + 10 = 15

43. (2) Number of workers who earn between Rs. 950 to Rs.960 = 10

Required percentage

$= \frac{10}{49} \times 100 = 20.4\%$

44. (2) Unsuccessful students in Maths $\Rightarrow$ 10

Class-interval 25–30 = 15

45. (4) Total students in the class $\Rightarrow$ 15 + 20 + 40 + 50 + 10 = 135

46. (4) Total students $\Rightarrow$ 135

Successful students

$\Rightarrow$ 20 + 40 + 50 + 10 = 120

$\therefore$ Required per cent

$= \frac{120}{135} \times 100$

$= \frac{800}{9} = 88\frac{8}{9}\%$

47. (1) Number of students who score more than 90% = class – interval 45 – 50 = 10

48. (2) Number of literate people in the age group 15 to 45 years = 900 + 800 + 650 + 600 + 500 + 250 = 3700

49. (1) Required answer = 800 + 650 + 600 = 2050

50. (2) Number of literate people in the age group 30–45 years = 600 + 500 + 250 = 1350

Total literate people = 3700 + 350 = 4050

Required percent

$= \frac{1350}{4050} \times 100$

$= \frac{100}{3} = 33.33\%$

51. (3) Required ratio = (800 + 650 + 600) : (600 + 500 + 250) = 2050 : 1350 = 41 : 27

52. (3) Students who score less than 60 marks = 7 + 8 + 18 = 33

53. (1) Required average marks

$= \frac{10 \times 7 + 30 \times 8 + 50 \times 18 + 70 \times 4 + 90 \times 13}{50}$

$= \frac{70 + 240 + 900 + 280 + 1170}{50}$

$= \frac{2660}{50} = 53.2$

Mid-value of class-interval (x)

$= \frac{\text{Highest value} + \text{Lowest value}}{2}$

$\therefore$ Average = $\frac{\sum fx}{\sum f}$

where $\sum f$ = Total number of students

54. (1) Required answer = 18 + 4 = 22

55. (3) Students who score more than 59 marks = 4 + 13 = 17

$\therefore$ Required per cent

$= \frac{17}{50} \times 100 = 34\%$

56. (3) Total number of students = 5 + 10 + 15 + 19 + 13 = 62

Number of students who obtained 40 marks or less = 15

Required per cent

$= \frac{15}{62} \times 100 \approx 24.2$

57. (4) Required ratio = (19 + 13) : (5 + 10 + 15) = 32 : 30 = 16 : 15

TYPE-VII

1. (3) 15 per cent ≈ 24000

$\therefore$ 85 per cent ≈ $\frac{85 \times 24000}{15}$

= 136000

2. (4) According to table T

3. (2) According to table Q

4. (4) According to table T

5. (3) According to table 452500

6. (3) Average $= \frac{476}{6} = 79.33 \approx 80$

Which is equal to total production of all types of cars in 1993.

7. (4)

Year→	1989	1990	1991	1992	1993	1994
P + Q	24	30	30	29	33	20
R + S	25	23	26	31	33	39

Therefore, the required answer is year 1993, which is none of the above.

8. (4) From visual inspection of table it is clear that the continuous increase in production is obtained from S type of car.

9. (1) According to question,

$25\%\ \text{of}\ 80 = \frac{25 \times 80}{100}$

= 20 i.e. Equal to S type of car in 1993.

10. (2) Required answer

$= \frac{(90 - 75)}{75} \times 100 = 20\ \%$

11. (4) The number of children in 1988 = 146947 – (65104 + 60387) = 146947 – 125491 = 21456

12. (2) The total population in 1989 = population in 1988 + increase = 146947 + 11630 = 158577

13. (1) Number of children in 1989 = Total population in 1989 – Total population of men and women = 158577 – (70391 + 62516) = 25670

14. (1) Number of women in 1991 = Total population in 1991 – total population of men and children in 1991
= (153922 – 5337) – (69395 + 21560) = 57630

15. (2) Total population in 1992 = 160998
Total population in 1991 = 153922 – 5337 = 148585
∴ Increase in population in 1992 over 1991 = 160998 – 148585 = 12413

16. (1) Average number of scooters produced per year (in thousands)

$$= \frac{115+108+149+102+101}{5}$$

$$= \frac{575}{5} = 115$$

Clearly, it was in the year 1985.

17. (3) Company Q produced 20 thousands scooters in 1988 and 15 thousands in 1989. Clearly, a decrease of 25%.
Similar is the case with company R also.

18. (2) Required ratio $= \frac{20}{40}$
= 1 : 2

19. (3) It was maximum in the year 1987.

20. (2) Total production of scooters during 1985 - 1989 in thousands.
= 115 + 108 + 149 + 102 + 101 = 575
Now, 20% of 575

$$= \frac{20\times 575}{100} = 115$$

It was in the year 1985.

21. (1) The difference between the total sales and the gross profit is the least in the year 1990.

22. (4) Total sales in 1993 = ₹ 439.7 lakhs
Total sales in 1990 = ₹ 351.6 lakhs
∴ Required percentage

$$= \frac{439.7}{351.6}\times 100$$

$$\approx \frac{440}{350}\times 100 \approx 125\%$$

23. (1) It is obvious from the table.

24. (4) Percentage increase in the year,

$$1992 \rightarrow \frac{(149.9-134.3)}{134.3}\times 100$$

$$= \frac{15.6\times 100}{134.3} = 11.6\%$$

$$1993 \rightarrow \frac{(160.5-149.9)}{149.9}\times 100$$

$$= \frac{10.6\times 100}{149.9} = 7\%$$

$$1994 \rightarrow \frac{(203.3-160.5)}{160.5}\times 100$$

$$= \frac{42.8\times 100}{160.5} = 26.6\,\%$$

Note : It is not necessary to calculate percentage increase for every year. It can be inferred easily from the data given in the table.

25. (4) Required average of marks in 1995

$$= \frac{56+68+68+48}{4} = \frac{240}{4} = 60$$

26. (2) Total marks = 68×40 = 2720

27. (2) It was maximum in the year 1993.
Highest marks = 94
Average marks = 60
Difference = 94 – 60 = 34

28. (3) It was in the year 1994.
Highest marks = 66
Average marks = 58
Difference = 66 – 58 = 8

29. (2) Percentage increase in the export from :

$$\text{Port A} \rightarrow \frac{61-57}{57}\times 100 = 7\%$$

$$\text{Port B} \rightarrow \frac{160-148}{148}\times 100 = 8.1\%$$

$$\text{Port C} \rightarrow \frac{234-229}{229}\times 100 = 2.2\%$$

$$\text{Port D} \rightarrow \frac{150-146}{146}\times 100 = 2.74\%$$

Export form B is highest.

30. (1) Aggregate export in 1998
= ₹ (57 + 148 + 229 + 146) crore
= ₹ 580 crore
Aggregate export in 1999
= ₹ (61 + 160 + 234 + 150) crore
= ₹ 605 crore
Increase = ₹ (605 – 580) crore
= ₹ 25 crore
∴ Percentage increase

$$= \frac{25}{580}\times 100 = 4.3\%$$

31. (4) Average increase in export

$$= ₹\ \frac{25}{4}\ \text{crore}$$

$$= ₹\ \frac{25}{4}\times 10000000$$

= ₹ 62500000

32. (3) The Percentage increase in the export of the commodity was the lowest from port C.

33. (2) ∵ 15% ≡ 2400

$$\therefore 85\% \equiv \frac{2400}{15}\times 85 = 13600$$

34. (3) It is obvious from the table.

35. (2) In city E,
∵ 25% ≡ 8000

$$\therefore 100\% \equiv \frac{8000}{25}\times 100 = 32000$$

36. (4) City A

$$\Rightarrow \frac{2400}{40}\times 100 = 6000$$

City D

$$\Rightarrow \frac{8000\times 100}{75} = 6000$$

37. (2) Percentage increase

$$= \frac{125-105}{105}\times 100$$

$$= \frac{20}{105}\times 100 \approx 19\%$$

38. (1) Percentage decrease

$$= \frac{200-180}{200}\times 100$$

$$= \frac{20}{200}\times 100 = 10\%$$

39. (3) Total production of toys in 2005 = 675 thousand
Total production of toys in 2006 = 750 thousand
Percentage increase

$$= \frac{750-675}{675}\times 100 = 11\%$$

40. (2) Difference in production of toys of type B and C :
Year 2002 ⇒ 150 – 78
= 72 thousand
Year 2003 ⇒ 180 – 100
= 80 thousand
Year 2004 ⇒ 175 – 92
= 83 thousand
Year 2005 ⇒ 160 – 120
= 40 thousand
Year 2006 ⇒ 185 – 130
= 55 thousand
∴ Required answer

$$= \frac{72+80+83+40+55}{5}$$

$$= \frac{330}{5} = 66 \text{ thousand}$$

41. (2) Required percentage

$$= \frac{326}{384} \times 100 \approx 85\,\%$$

42. (4) Total number of students appearing in 2004
= 310 + 395 + 106 + 1180
= 1991
Required percentage

$$= \frac{1180}{1991} \times 100 \approx 59.3\%$$

43. (3) Total number of students appearing in all streams :
Year 2002 ⇒ 2136
Year 2003 ⇒ 2179
Year 2004 ⇒ 1991 (minimum)
Year 2006 ⇒ 2298

44. (2) Total number of students passing in all streams :
Year 2001
⇒ 289 + 246 + 69 + 1310 = 1914
Year 2004
⇒ 246 + 298 + 92 + 1074 = 1710
Year 2005
⇒ 382 + 382 + 74 + 1326 = 2164 (maximum)
Year 2006
⇒ 286 + 405 + 63 + 1207 = 1961

45. (2) Percentage decrease

$$= \frac{234-228}{234} \times 100$$

$$= \frac{600}{234} = 2.56\%$$

46. (3) It is obvious from the table.

47. (1) It is obvious from the table.

48. (1) Percentage increase

$$= \frac{860-680}{680} \times 100$$

$$= \frac{180}{680} \times 100 = 26.47\%$$

49. (1) Science + Commerce Students
= (29 + 31)% = 60%
Students who neither have commerce nor science

$$= 200 \times \frac{40}{100} = 80$$

50. (2) Average production of whole duration $= \frac{476}{6} = 79$, which is total production in 2000.

51. (2) Number of people who read only English Newspapers
= 123 + 206 + 325 = 654

52. (4) Total number of people surveyed = 608 + 586 + 742
= 1936

53. (3) Per cent increase

$$= \frac{380-320}{320} \times 100 = 18.75\%$$

54. (2) Total production :
Wheat ⇒ 3700 million tonnes
Rice ⇒ 2000 million tonnes
Barley ⇒ 1800 million tonnes
Other cereals ⇒ 2400 million tonnes

$$\therefore x = \frac{3700}{9900} \times 100 = 37.4$$

55. (1) Perecentage increase in

$$\text{Rice} = \frac{160}{400} \times 100 = 40\%$$

$$\text{Cereals} = \frac{190}{500} \times 100 = 38\%$$

56. (4) Required difference

$$= \frac{2000}{5} - \frac{1800}{5} = 400 - 360$$

= 40 million tonnes

57. (3) B's average speed

$$= \left(\frac{25+40+35+25}{4}\right) \text{kmph}$$

= 31.25 kmph

58. (2) Required ratio of average speed

$$= \frac{20+30+20+15+25}{5} : \frac{15+25+35+20+30}{5}$$

= 110 : 125 = 22 : 25 km

59. (2) Required distance
= (25 + 40 + 35 + 25 + 35 + 10 + 25 +15) – (20 + 30 + 20 + 15 + 25 + 15 + 25 +35) = 210 – 185
= 25 km

60. (4) Distance after 2 hours
= 65 – 50 = 15 km
Distance after 3 hours
= 100 – 70 = 30 km
Distance after 4 hours
= 125 – 85 = 40 km
Distance after 5 hours
=160 – 110 = 50 km (maximum distance)

61. (4) Required percentage

$$= \frac{60}{15} \times 100 = 400\,\%$$

62. (3)

$$\text{School A} \Rightarrow \frac{120}{270} \times 100 \approx 44\,\%$$

$$\text{School B} \Rightarrow \frac{60}{150} \times 100 = 40\,\%$$

$$\text{School C} \Rightarrow \frac{210}{450} \times 100 \approx 47\,\%$$

(highest income %)

$$\text{School D} \Rightarrow \frac{90}{210} \times 100 \approx 43\,\%$$

63. (2) School A ⇒ 120 > 4 × 24
School B ⇒ 60 > 12 × 4
School C ⇒ 210 > 45 × 4
School D ⇒ 90 < 24 × 4
School E ⇒ 120 = 30 × 4

64. (1) School B $\Rightarrow \frac{54}{60} = 0.9$

$$\text{School C} \Rightarrow \frac{120}{210} \approx 0.57$$

$$\text{School D} \Rightarrow \frac{42}{90} \approx 0.47$$

$$\text{School E} \Rightarrow \frac{55}{120} = 0.46$$

(lowest income ratio)

65. (2) Total grain production of state
P = 45 + 103 + 27 + 29
= 240 lakh tonnes
Q = 48 + 86 + 73 + 19 + 15
= 241 lakh tonnes

R = 59 + 32 + 67 + 14 + 31
= 203 lakh tonnes
S = 41 + 37 + 59 + 21 + 15
= 173 lakh tonnes
Obviously, State Q had the highest grain production.

66. (3) Total rice Production
= 45 + 48 + 59 + 41 + 37 + 68 + 57 + 38 = 393 lakh tonnes
Total wheat production = 103 + 86 + 32 + 37 + 22 + 15 + 8 + 28 = 331 lakh tonnes
∴ Required ratio
= 393 : 331 = 1.2 : 1

67. (1) In the states Q, R and S Jowar recorded highest production (Here state Q in second highest)

68. (4) Required percentage

$$= \frac{103}{331} \times 100 = 31\% = 30\%$$

69. (3) Average per hectare yield of rice = 30 tonnes
Total rice production
= 393 lakh tonnes
∴ Required area

$$= \frac{393}{30} \text{ lakh hectares}$$

= 13.1 = 13 lakh hectares

70. (2) Average loan

$$= \frac{87+104+113+120}{4}$$

$$= \frac{424}{4} = ₹ 106 \text{ crore}$$

Required year = 1996

71. (2) Required percentage

$$= \frac{120-113}{113} \times 100$$

$$= \frac{7}{113} \times 100 = \frac{700}{113} = 6\frac{22}{113}\%$$

72. (4)

year	A + B	C + D
	(₹ in crores)	(₹ in crores)
1995	45	52
1996	56	48
1997	63	50
1998	71	49

73. (4) 13 < 19 < 28 < 32

74. (2) 30% of 120 = $120 \times \frac{30}{100}$

= ₹ 36
∴ Loans disbursed by Bank B in 1998 is 30% more than the loans disbursed by all banks.

75. (1) From the table it is clear that age group up to 15 years accounts for maximum population, as its share is 30 per cent. But out of the given options, the age group (16 – 25) years accounts for maximum population.

76. (1) Below 26 years, the percent of population is (30 + 17.75)
= 47.75
∴ The required answer
= 47.75% of 4200

$$= \frac{47.75 \times 4200}{100}$$

= 2005.5 ≈ 2006

77. (2) Below 36 years, the percent of population is (30 + 17.75 + 17.25) = 65%
∴ The required number of people $= \frac{200 \times 5.12}{65}$ millions
= 15.75 millions

78. (2) Per cent of population in the age group 56 years and above
= 5.12 + 1.13 = 6.25
Now, 6.25% of population
= 10 millions
∴ Total Population

$$= \frac{10 \times 100}{6.25} \text{ millions}$$

= 160 millions
Difference in per cent of people in the age groups (16 – 25) and (46 – 55)
= 17.75 – 14.25 = 3.5%
∴ The required difference
= 3.5% of 160 millions

$$= \frac{3.5 \times 160}{100} \text{ millions}$$

= 5.6 millions

79. (2) Difference in per cent of people in the age groups (46 – 55) and (26 – 35)
= 17.25 – 14.25 = 3%
Now, 3% of total Population
= 11.75 million
∴ Total Population

$$= \frac{11.75 \times 100}{3}$$

= 391.67 millions (approx.)

80. (2) Candidates qualified under arts discipline In 2010

$$= \frac{900 \times 19}{100} = 171$$

$$= \frac{850 \times 18}{100} = 153$$

Difference = 171 – 153 = 18

81. (1) Candidates qualified under science discipline in

Year 2006 $\Rightarrow \frac{780 \times 40}{100} = 312$

Year 2007 $\Rightarrow \frac{650 \times 42}{100} = 273$

Year 2008 $\Rightarrow \frac{500 \times 45}{100} = 225$

Year 2009 $\Rightarrow \frac{45 \times 620}{100} = 279$

Year 2010 $\Rightarrow \frac{35 \times 900}{100} = 315$

Year 2011 $\Rightarrow \frac{42 \times 850}{100} = 357$

Required average difference

$$= \frac{1}{3}[(279 + 315 + 357) - (312 + 273 + 225)] = \frac{1}{3}(951 - 810)$$

$$= \frac{1}{3} \times 141 = 47$$

82. (1)

Height	No. of girls
135-140	04
140-145	07
145-150	18
150-155	11
155-160	06
160-165	05

Required answer
= 11 + 6 + 5 = 22

83. (2) Class interval (155 – 160)
= 6 girls

Mid-value = $\frac{155+160}{2}$ = 157.5

Class interval (160 – 165)
= 5 girls

Mid value = $\frac{160+165}{2}$ = 162.5

∴ Required average

$$= \frac{6 \times 157.5 + 5 \times 162.5}{11}$$

$= \frac{945 + 812.5}{11} = \frac{1757.5}{11}$

= 159.8 cm

84. (1) Percentage of people below 36 years = 55%

i.e. (20 + 18.25 + 16.75)%

$\because$ 55% ≡ 22 million

$\therefore \quad 12.50\% \equiv \frac{22}{55} \times 12.50$

= 5 millions

85. (2) Difference = 0.975 million

$\Rightarrow$ (18.25 – 15)% ≡ 0.975 million

$\therefore \quad 100\% \equiv \frac{0.975}{3.25} \times 100$

≡ 30 millions

86. (3) People in southern zone

= 1450 + 1120 + 420 + 350 + 50 = 3390

People who take coffee at least once a day = 1450 + 1120 = 2570

Required percentage

$= \frac{2570}{3390} \times 100$

≈ 75.81

87. (4) Total people in north zone = 4840

Total people in south zone = 3390

Total people in east zone = 2820

Total population = 4840 + 3390 + 2820 = 11050

People who take coffee only once a week in these zones

= 620 + 540 + 350 = 1510

Required per cent

$= \frac{1510}{11050} \times 100 \approx 14$

88. (2) Number of people who take coffee more than 3 times a day = 410 + 310 + 700 + 1450 = 2870

Total number of people who do not take coffee at all

= 950 + 430 + 620 + 50 = 2050

Required ratio = 2870 : 2050

= 1.4 : 1 = 14 : 10

= 7 : 5

Calculations (89-91) :

Students	No. of students scoring marks less than 50%	No. of students scoring marks more than 50%	No. of students who score 50% marks
School A	240	$600 \times \frac{55}{100} = 330$	600 – 330 – 240 = 600 – 570 = 30
School B	220	$\frac{400 \times 40}{100} = 160$	400 – 220 – 160 = 400 – 380 = 20
School C	300	$\frac{375 \times 20}{100} = 75$	375 – 300 – 75 = 0
School D	280	$\frac{350 \times 10}{100} = 35$	350 – 280 – 35 = 350 – 315 = 35
School E	210	$\frac{300 \times 25}{100} = 75$	300 – 210 – 75 = 15
Sum	1250	675	100

89. (3) Required ratio = 1250 : 100 = 25 : 4

90. (3) School B

91. (4) Required answer = 675

92. (4) Production of all types of scooters was the lowest in June. It was 90.

93. (1) Production of equal number of all types of scooters was 25 each in January.

94. (3) Total number of scooters produced = 100 + 105 + 108 + 110 + 110 + 90 = 623

95. (2) Total production :

April $\Rightarrow$ 110

May $\Rightarrow$ 110

96. (2) Total runs scored by warner = 267 = 155.77

$\therefore$ Strike rate

$= \frac{\text{Total runs}}{\text{balls faced}} \times 100$

$\Rightarrow 155.77 = \frac{567}{\text{Balls faced}} \times 100$

$\Rightarrow$ Balls faced

$= \frac{567 \times 100}{155.77} \approx 364$

97. (2) Ajinkya Rahade's strike rate

$= \frac{461}{364} \times 100 = 127$

Cokk's strike rate $= \frac{385}{266} \times 100$

= 145

Required percent

$= \left(\frac{145 - 127}{145}\right) \times 100$

$= \frac{1800}{145} \approx 12\%$

98. (3) Runs scored by sixes

= (28 + 32 + 23 + 9 + 5 + 4 + 12 + 6 + 12) × 6

= 131 × 6 = 786

99. (2) Viral Kohali's Batting average

$= \frac{752}{12 - 3}$

$= \frac{752}{9} = 83.5$

$\therefore$ Required percent

$= \frac{83.5 - 45}{45} \times 100$

≈ 85

100. (1) Murali Vijay's strike rate

$= \frac{378}{315} \times 100 = 120$

Required difference

$= 130.77 - 120 = 10.77$

101. (2) Production of D – type cycles :

Year 1998 $\Rightarrow$ 105

Year 2000 $\Rightarrow$ 125

Percentage increase

$= \frac{125-105}{105} \times 100$

$= \frac{2000}{105} \approx 19\%$

102. (1) Total production of cycles :

Type–A $\Rightarrow$ 945

Type–B $\Rightarrow$ 850

Type–C $\Rightarrow$ 520

Type–D $\Rightarrow$ 565

Type–E $\Rightarrow$ 375

103. (1) Required percentage decrease $= \left(\frac{200-180}{200}\right) \times 100$

$= \frac{20}{2} = 10\%$

104. (2) Required per cent

$= \frac{80}{160} \times 100 = 50\%$

105. (4) Respective production :

January $\Rightarrow$ 590

February $\Rightarrow$ 1240 – 590 = 650

March $\Rightarrow$ 1940 – 1240 = 700

April $\Rightarrow$ 2610 – 1940 = 670

May $\Rightarrow$ 3050 – 2610 = 440

$\therefore$ Total production of cars in April and May = 670 + 440

= 1110

106. (4) Total distance covered

= (3 + 2 + 2.5 + 5 + 1 + 2.5 + 4) km.

= 20 km.

$\because$ 5 km. $\equiv$ 400 calories

$\therefore$ 20 km. $\equiv \left(\frac{400}{5} \times 20\right)$ calories

$\equiv$ 1600 calories

107. (4) Total expenditure

= Rs. (11 + 7 + 5 + 3 + 3) lakhs

= Rs. 29 lakhs.

Expenditure on raw materials and taxes = Rs. 14 lakh

$\therefore$ Required percent

$= \frac{14}{29} \times 100$

$\approx 48.28\%$

108. (1) Respective production :

January $\Rightarrow$ 480

February $\Rightarrow$ 1050 – 480 = 570

March $\Rightarrow$ 1630 – 1050 = 580

April $\Rightarrow$ 1970 – 1630 = 340

May $\Rightarrow$ 2670 – 1970 = 700

$\therefore$ Total production of cars in May and April

= 700 + 340 = 1040

109. (2) Total distance covered

= (2.5 + 4 + 2.5 + 3.5 + 0.5 + 2.5 + 1.5) km.

= 17 km.

$\because$ 5 km. $\equiv$ 400 calories

$\therefore$ 17 km. $\equiv \left(\frac{400}{5} \times 17\right)$ calories

= 1360 calories

110. (4) Total expenditure

= Rs. (12 + 6 + 3 + 4 + (3) lakhs

= Rs. 28 lakhs

Total expenditure on raw materials and interest together

= Rs. 16 lakhs

$\therefore$ Required per cent

$= \frac{16}{28} \times 100$

= 57.14%

TYPE-VIII

1. (4) Required average

$= \frac{110+138+156}{3}$

$= \frac{404}{3} = 134.67$

2. (3) Required percentage increase

$= \left(\frac{170-110}{110}\right) \times 100$

$= \frac{600}{11} = 54.5\%$

3. (3) Required percentage decrease

$= \left(\frac{170-156}{170}\right) \times 100$

$= \frac{140}{17} = 8.24\%$

4. (1) IQ score $\Rightarrow$ 130 – 140 $\Rightarrow$ 2

IQ score of 140

$\Rightarrow$ undeterminable

5. (2) Number of students whose IQ score is 100 and more

= 16 + 13 + 4 + 2 = 35

6. (2) In 2011,

Taxable products = $4x$

Non-taxable products = x

In 2012,

Total products = $5x \times \frac{110}{100}$

$= \frac{11x}{2}$

Taxable products = $\frac{11x}{2} \times \frac{2}{5}$

$= \frac{11x}{5}$

Non-taxable products

$= \frac{11x}{2} \times \frac{3}{5} = \frac{33x}{10}$

$\therefore$ Required ratio

$= \left(4x + \frac{11x}{5}\right) : \left(x + \frac{33x}{10}\right)$

$= \left(\frac{20x+11x}{5}\right) : \left(\frac{10x+33x}{10}\right)$

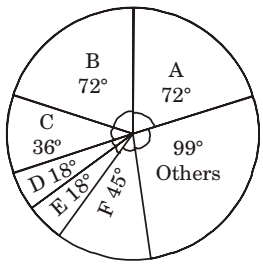
$= \frac{31x}{5} : \frac{43x}{10}$

= 62 : 43

□□□

TEST YOURSELF

Directions (1–5) : The following Pie Chart shows the export of different foodgrains from India in 2010. Study the chart and answer the questions :



1. Of the total export of foodgrains, the percentage of crop B exported is
(1) 15% (2) 20%
(3) 18% (4) 10%

2. If a total of 1.5 million quintals of crop F was exported, the amount of total foodgrains exported (in million) quintals was
(1) 8.7 (2) 12
(3) 10.8 (4) 9.6

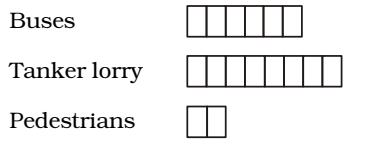
3. The three crops which combine to contribute to exactly 50% of the total export of foodgrains are
(1) A, F and others
(2) B, C and F
(3) A, B and C
(4) C, F and others

4. If a total of 1.5 million quintals of crop F was exported, then the total quantity of D and E that was exported (in million quintals) was
(1) 1.2 (2) 1.5
(3) 4.5 (4) 6.5

5. If the revenue from 1 quintal of crop A is thrice that from 1 quintal of crop C, then the ratio of the total revenues of A and C is
(1) 1 : 6 (2) 2 : 3
(3) 3 : 2 (4) 6 : 1

Directions (6–10) : The following is a horizontal bar diagram showing the accidents in which two-wheelers are involved with other objects. Study the diagram and answer the questions.

OBJECTS HIT



6. The difference in percentage between the accidents involving two-wheelers and two-wheelers and two-wheelers and other objects is respectively.
(1) 77% more (2) 77% less
(3) 54% more (4) 54% less

7. 60% of the accidents are involved due to
(1) cars, buses, tanker lorry and pedestrians
(2) cars, tanker lorry, bicycles and stationary vehicles
(3) two-wheelers, cars, buses and stationary vehicles
(4) two-wheelers, cars, buses and tanker lorry

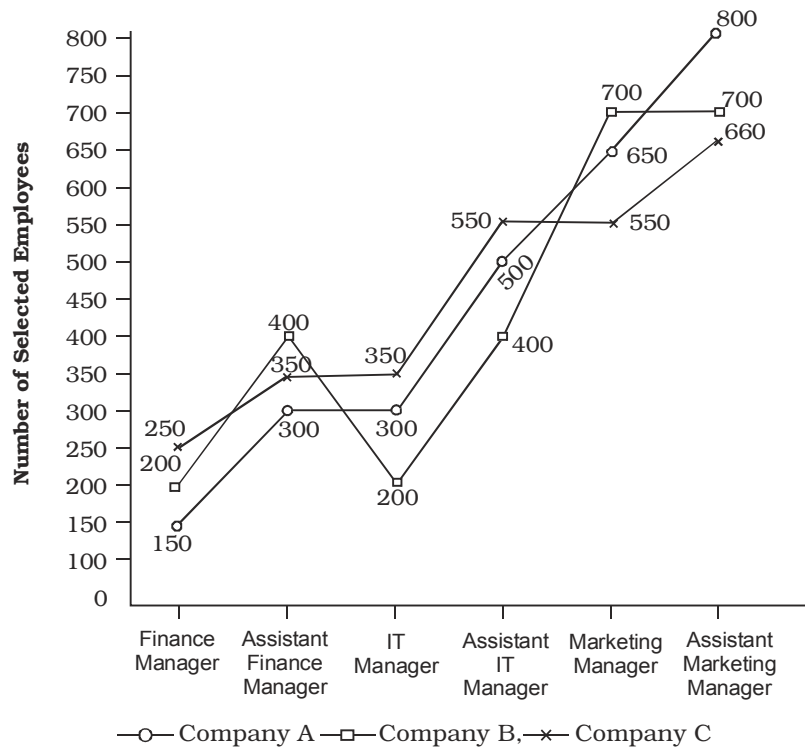
8. If the data of the bar diagram is represented by a pie-chart, and the angle of a sector of the pie-chart is 36°, then this sector represents the accidents involving
(1) pedestrians
(2) bicycles
(3) buses
(4) stationary vehicles

9. The percentage of accidents in which pedestrians and cyclists are involved is
(1) 24% (2) 6%
(3) 60% (4) 20.4%

10. The percentage by which the accidents involving buses is less than the accidents involving tanker lorry is
(1) 6% (2) 4%
(3) 40% (4) 28%

Directions (11-15) : Study the following graph carefully to answer the questions given below.

Number of selected employees in different grades/ranks by three companies during 2012



11. What is the average number of selected employees by company A in all grades taken together ?
(1) 450 (2) 460
(3) 475 (4) 375

12. What is the respective ratio of selected employees for the post of assistant IT managers by all the companies A, B and C together ?
(1) 8 : 10 : 11 (2) 10 : 8 : 11
(3) 11 : 10 : 8 (4) 10 : 11 : 8

13. By what percent is the number of selected employees for finance managers by company C more than that of selected employees by company B for the same post ?
(1) 35% (2) 30%
(3) 25% (4) 40%

14. What is the average number of selected employees for the post of assistant marketing managers by all companies taken together ?
(1) 570 (2) 520
(3) 620 (4) 720

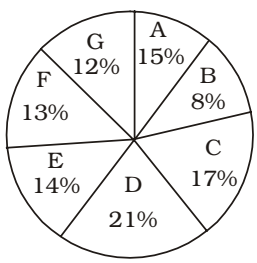
15. What is the respective ratio of selected employees for IT managers by all companies A, B and C ?
(1) 6 : 4 : 7 (2) 5 : 3 : 7
(3) 4 : 7 : 9 (4) 8 : 7 : 6

Directions (16-20) : The following questions are based on the pie–charts given below.

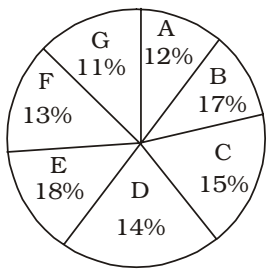
Percentagewise Distribution of students studying in Arts and commerce in seven different institutions

Different institutions — A, B, C, D, E, F and G

Total number of students studying Arts = 3800



Total number of students studying commerce = 4200



16. What is the total number of students studying Arts in institutes A and G together ?
(1) 1026 (2) 1126
(3) 1226 (4) 1206

17. How many students from institute B study Arts and Commerce ?
(1) 1180 (2) 1108
(3) 1018 (4) 1208

18. The respective ratio between the number of students studying Arts and commerce from institute E is
(1) 27 : 14 (2) 19 : 27
(3) 19 : 16 (4) 19 : 28

19. The ratio between the number of students studying Arts from institute E and that of students studying commerce from institute D is
(1) 12 : 17 (2) 12 : 7
(3) 19 : 21 (4) 17 : 19

20. How many students from institutes B and D together study commerce ?
(1) 1320 (2) 1302
(3) 1202 (4) 1220

SHORT ANSWERS

1. (2)	**2.** (2)	**3.** (3)	**4.** (1)
5. (4)	**6.** (4)	**7.** (3)	**8.** (4)
9. (1)	**10.** (2)	**11.** (1)	**12.** (2)
13. (3)	**14.** (4)	**15.** (1)	**16.** (1)
17. (3)	**18.** (2)	**19.** (3)	**20.** (2)

EXPLANATIONS

1. (2) Percentage of crop B exported
$= \frac{72}{360} \times 100 = 20\,\%$

2. (2) $\because$ 45° = 1.5 million quintals
$\therefore$ 360° $= \frac{1.5 \times 360}{45} = 12$ million quintals

3. (3) A + B + C = 72° + 72° + 36° = 180°

4. (1) $\because$ 45° = 1.5 million quintals
$\therefore$ 36° $= \frac{1.5 \times 36}{45}$
= 1.2 million quintals

5. (4) A : C = 3 × 72° : 36°
= 6 : 1

6. (4) Total accidents = 230 + 150 + 120 + 160 + 40 + 200 + 100 = 1000
Percentage of accidents involving two-wheelers and two wheelers
$= \frac{230}{1000} \times 100 = 23\,\%$
Percentage of accidents involving two-wheelers and other objects
$= \frac{770 \times 100}{1000} = 77\,\%$
$\therefore$ Required difference
= 77 – 23 = 54%

7. (3) Two-wheelers + Cars + Buses + Stationary Vehicles
= 230 + 150 + 120 + 100
= 600 ≈ 60%

8. (4) $\because$ 1000 ≡ 360°
$\therefore$ 100 ≡ $\frac{360}{1000} \times 100 = 36°$

9. (1) Required percentage
$= \frac{40 + 200}{1000} \times 100$
$= \frac{24000}{1000} = 24\%$

10. (2) Required difference
$= \frac{160 - 120}{1000} \times 100 = 4\%$

11. (1) Required average
$= \frac{2700}{6} = 450$

12. (2) Required average
= 500 : 400 : 550
= 10 : 8 : 11

13. (3) Required percentage
$= \frac{250 - 200}{200} \times 100 = 25\%$

14. (4) Required average
$= \frac{800 + 700 + 660}{3}$
$= \frac{2160}{3} = 720$

15. (1) Required ratio
= 300 : 200 : 350 = 6 : 4 : 7

16. (1) Required answer
$= 3800 \times \frac{27}{100} = 1026$

17. (3) Required answer
$= \frac{3800 \times 8}{100} + \frac{4200 \times 17}{100}$
= 304 + 714 = 1018

18. (2) Required ratio
$= \frac{3800 \times 14}{100} : \frac{4200 \times 18}{100}$
= 38 × 14 : 42 × 18
= 19 : 27

19. (3) Required ratio
$= \frac{3800 \times 14}{100} : \frac{4200 \times 14}{100}$
= 19 : 21

20. (2) Required answer
$= \frac{4200 \times 17}{100} + \frac{4200 \times 14}{100}$
= 714 + 588 = 1302