IBPS PO Prelim Exam 2015

Based on Memory

Reasoning Ability

DIRECTIONS (Qs. 1-5): Study the following information carefully and answer the questions given below.

P, Q, R, S, T, V and W are seven students of a school. Each of them studies in different standard from Standard IV to Standard X not necessarily in the same order. Each of them has favourite subject from English, Science, History, Geogra-phy, Mathematics, Hindi and Sanskrit not necessarily in the same order.

Q studies in VII Standard and does not like either Mathematics or Geography. R likes English and does not study either in V or in IX. T studies in VIII Standard and likes Hindi. The one who likes Science studies in X Standard. S studies in IV Standard. W likes Sanskrit. P does not study in X Standard. The one who likes Geography studies in V Standard.

- In which standard does W study?
 - (a) VII

(c) X

- (d) Data inadequate
- (e) None of these
- Which subject does P like?
 - (a) Geography
- (b) Mathematics
- (c) English
- (d) History
- (e) None of these
- Which subject does S like?
 - (a) History
- Geography
- (c) Mathematics
- Data inadequate
- (e) None of these
- In which standard does P study?
 - (a) IV

(b) VII

(c) IX

- (d) X
- (e) None of these
- Which of the following combinations of student-standardsubject is correct?
 - (a) T -VIII -Mathematics
- (b) W-VII-Sanskrit
- (c) Q -VII -Geography
- (d) V-X-Science
- (e) None of these

DIRECTIONS (Qs. 6-10): Study the following information carefully and answer the questions given below:

- A, B, C, D, E, F, G and H are eight students each having a different height.
- D is shorter than A but taller than G.
- (iii) E is taller than H but shorter than C.
- (iv) B is shorter than D but taller than F.
- (v) C is shorter than G.
- (vi) G is not as tall as F.
- Which of the following is definitely false?
 - (a) G is shorter than F
- (b) C is shorter than F
- (c) F is taller than C (e) All are true
- (d) B is taller than E

- If another student J who is taller than E but shorter than G is added to the group, which of the following will be definitely true?
 - (a) C and J are of same height
 - (b) J is shorter than D
 - (c) J is shorter than H
 - (d) J is taller than A
 - (e) None of these
- Which of the following will definitely be the third from top when the eight students are arranged in descending order of height?
 - (a) B

(b) F

(c) G

- (d) B or G
- (e) Cannot be determined
- How many of them are definitely shorter than F?
 - (a) Three
- (b) Four
- (c) Five
- (d) Data inadequate
- (e) None of these
- 10. Which of the following is redundant to answer all the above questions?
 - (a) (ii) only
- (b) (ii) and (iii) only
- (c) (iii) and (iv) only
- (d) (i) and (v) only
- (e) All are necessary to answer the above questions

DIRECTIONS (Qs. 11-15): Study the following information carefully and answer the given questions:

In a certain code language:

"demand and supply market" is written as "pa ni de re"

"market needs more demand" is written as "de ja ni fe"

"supply demand is related" is written as "le de re ab"

"more related to economics" is written as "ka ha ab ja"

- What is the code for 'economics'?
 - (a) ab
- (b) ka
- (c) ha
- (d) ja
- (e) Either 'ka' or 'ha'
- Which of the following represents 'supply related market'?
 - (a) ab ni de
- (b) ni re ab
- (c) pa ni re
- (d) de ab ni
- (e) None of these
- What is the code for 'more'?
 - (a) fe
- (b) ni
- (c) de
- (d) ja
- (e) Cannot be determined
- 14. Which of the following may represent "market needs more customers"?
 - (a) fe ja ni sa
- (b) ja ni de ab
- (c) ni ja ka pa
- (d) pa ni fe re
- (e) le re ni ja

- 32. Who amongst the following is the brother of A?
 - (a) E
- (b) G
- (c) A
- (d) B
- (e) Cannot be determined

DIRECTIONS (Qs. 33-35): In each question below are two/three statements followed by two conclusions numbered I and II. You have to take the two/three given statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

Give answer (a) if only conclusion I follows.

Give answer (b) if only conclusion II follows.

Give answer (c) if either conclusion I or conclusion II follows. Give answer (d) if neither conclusion I nor conclusion II follows.

Give answer (e) if both conclusion I and conclusion II follow. (33-34):

Statements:

Some colours are paints.

All colours are varnishes.

No varnish is dye.

- 33. Conclusions:
 - I. No paint is dye.
 - II. All paints being varnishes is a possibility.
- 34. Conclusions:
 - I. Some varnishes are paints.
 - II. No dye is colour.
- 35. Statements:

All squares are triangles.

No triangle is circle.

All circles are rectangles.

- 35. Conclusions:
 - I. No rectangle is square.
 - II. All rectangles being square is a possibility.

Quantitative Aptitude

DIRECTIONS (Qs. 36-40): Find the missing term.

- 36. 0.5, 1.5, 5, 8,76,?
 - (a) 380
- (b) 385
- (c) 390
- (d) 395
- (e) None of these
- 37. 65, 72, 86, 114?
 - (a) 160
- (b) 165
- (c) 170
- (d) 175
- (e) None of these
- 63, 31, 15, 7, 3?
- (a) 0

(b) 1

(c) 2

38.

- (d) 3
- (e) None of these
- 39. 13. 70, 71, 76, ?, 81, 86, 70, 91
 - (a) 70
- (b) 71
- (c) 80
- (d) 96
- (e) None of these
- 10. 8, 43, 11, 41, ?, 39, 17
 - (a) 8
- (b) 14
- (c) 43
- (d) 44
- (e) None of these

DIRECTIONS (Qs. 41-45): In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answer

- (a) if x > y
- (b) if x < y
- (c) if $x \ge y$
- (d) if $x \le y$
- (e) if x = y or relation cannot be established between 'x' and 'y'.
- 41. I. 8x + y = 10
 - II. 4x + 2y = 13
- 42. I. (x + 3) (y + 2) = 12
 - II. 2xy + 4x + 5y = 11
- 43. I. (3x-2)/y = (3x+6)/(y+16)
 - II. (x + 2)/(y + 4) = (x + 5)/(Y + 10)
- 44. I. $x^2 + 20x + 4 = 50 25x$
 - II. $y^2 10y 24 = 0$
- 45. I. $(x^2 10x + 16)/(x^2 12x + 24) = 2/3$
 - II. $y^2 y 20 = 0$

DIRECTIONS (Qs. 46-50): Study the given table carefully to answer the following questions.

| Field Name | Shape | Side (in m) | Base (in m) | Height (in m) | Radius (in m) | Cost of flooring (in Rs. per sq. metre) | Cost of fencing (in Rs. per m) |
|---------------|---------------|----------------|-------------|---------------|------------------|---|--------------------------------|
| A | Triangle | | 16 | 12 | | 50 | 20 |
| В | Rectangle | 10 × 20 | | | | 30 | 15 |
| С | Square | 15 | | | | 40 | 18 |
| D | Parallelogram | | 20 | 12 | | 60 | 25 |
| Е | Circle | | | | 10 | 45 | 22 |

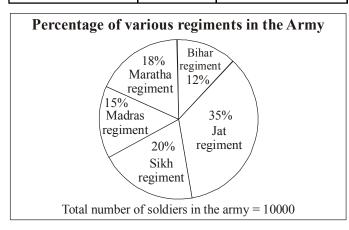
- 46. What is the cost of flooring of A?
 - (a) ₹4000
- (b) ₹4600
- (c) ₹4800
- (d) ₹5000
- (e) ₹4400
- 47. What is the difference between the cost of fencing of C and that of B?
- (a) ₹180
- (b) ₹120
- (c) ₹240
- (d) ₹360
- (e) ₹480
- 48. What is the ratio of the cost of flooring to that of fencing of field D?
 - (a) 4:1
- (b) 6:1
- (c) 8:1
- (d) 9:1
- (e) 5:1

- 49. The cost of fencing of field E is approximately what percent of the cost of flooring of field C?
 - (a) 10.5%
- (b) 19.46%
- (c) 18.71%
- (d) 15.36%
- (e) 13.82%
- 50. The cost of fencing of field C is what percent of the cost of fencing of field D?
 - (a) 87.54%
- (b) 67.5%
- (c) 72.13%
- (d) 54.36%
- (e) 46.5%

DIRECTIONS (Qs. 51-58): *Study the following table and pie chart carefully to answer the given questions.*

The table shows the ratio of Hindu religion soldiers to soldiers of other religions

| Name of regiment | Hindu | Other religions |
|------------------|-------|-----------------|
| Jat regiment | 4 | 1 |
| Sikh regiment | 3 | 5 |
| Madras regiment | 2 | 1 |
| Maratha regiment | 3 | 2 |
| Bihar regiment | 5 | 3 |



- 51. What is the number of Hindu soldiers in Jat regiment?
 - (a) 2600
- (b) 2700
- (c) 3200
- (d) 2800
- (e) 2350
- 52. What is the difference between Hindu soldiers in Madras regiment and soldiers of other religions in Bihar regiment?
 - (a) 485
- (b) 550
- (c) 520
- (d) 510
- (e) 490
- 53. The number of Hindu soldiers in Sikh regiment is what percent of the number of other soldiers in Maratha regiment?
 - (a) 97.12%
- (b) 99.56%
- (c) 102%
- (d) 104.16%
- (e) 25%
- 54. In which regiment is the number of non-Hindu soldiers the maximum?
 - (a) Maratha regiment
- (b) Sikh regiment
- (c) Madras regiment
- (d) Jat regiment
- (e) Bihar regiment

- 55. What is the ratio of the number of Hindu soldiers in Bihar regiment to the number of non-Hindu soldiers in Jat regiment?
 - (a) 11:10
- (b) 12:11
- (c) 13:12
- (d) 14:13
- (e) 15:14
- 56. If the compound interest on an amount of ₹ 29000 in two years is ₹ 9352.5, what is the rate of interest?
 - (a) 11
- (b) 9
- (c) 15
- (d) 18
- (e) None of these
- 57. Three friends A, B and C start running around a circular stadium and complete a single round in 8, 18 and 15 seconds respectively. After how many minutes will they meet again at the starting point for the first time?
 - (a) 12
- (b) 6
- (c) 8

- (d) 15
- (e) 18
- 58. The perimeter of a square is equal to the radius of a circle having area 39424 sq cm, what is the area of square?
 - (a) 1225 sq cm
- (b) 441 sq cm
- (c) 784 sq cm
- (d) Can't say
- (e) None of these

DIRECTIONS (Qs. 59-61) : *Study the following information carefully to answer the questions that follow-*

A committee of five members is to be formed out of 5 Males, 6 Females and 3 Children. In how many different ways can it be done if-?

- 59. The committee should consist of 2 Males, 2 Females and 1 Child?
 - (a) 450
- (b) 225
- (c) 55
- (d) 90
- (e) None of these
- 60. The committee should include all the 3 Childs?
 - (a) 90
- (b) 180
- (c) 21
- (d) 55
- (e) None of these
- (a) 33
- (e) None of these
- 61. Thirty men can complete a work in 36 days. In how many days can 18 men complete the same piece of work?
 - (a) 48
- (b) 36
- (c) 60
- (d) 72
- (e) None of these
- 62. Ram spends 50% of his monthly income on household items, 20% of his monthly income on buying clothes, 5% of his monthly income on medicines and saves remaining ₹ 11,250. What is Ram's monthly income?
 - (a) ₹38,200
- (b) ₹ 34,000
- (c) ₹41,600
- (d) ₹45,000
- (e) None of these
- 3. The number obtained by interchanging the two digits of a two digit number is lesser than the original number by 54. If the sum of the two digits of the number is 12, then what is the original number?
 - (a) 28
- (b) 39
- (c) 82
- (d) Can't say
- (e) None of these

- At present Geeta is eight times her daughter's age. Eight years from now, the ratio of the ages of Geeta and her daughter will be 10: 3 respectively. What is Geeta's present
 - (a) 32 years
- (b) 40 years
- (c) 36 years
- (d) Can't say
- (e) None of these
- 65. In how many different ways can 4 boys and 3 girls be arranged in a row such that all the boys stand together and all the girls stand together?
 - (a) 75
- (b) 576
- (c) 288
- (d) 24
- (e) None of these

DIRECTIONS (Qs. 66-70): What approximate value will come in place of question mark (?) in the following questions (You are not expected to calculate the exact value).

- 9228.789 5021.832 + 1496.989 = ?
 - (a) 6500
- (b) 6000
- (c) 6300
- (d) 5700
- (e) 5100
- $1002 \div 49 \times 99 1299 = ?$
 - (a) 700
- (b) 600
- (c) 900
- (d) 250
- (e) 400
- 29.8% of 260 + 60.01% of 510 103.57 = ?
- (a) 450
- (b) 320
- (c) 210
- (d) 280
- (e) 350
- $(21.98)^2 (25.02)^2 + (13.03)^2 = ?$
 - (a) 25
- (b) 120
- (c) 10
- (d) 65
- (e) 140
- $\sqrt{24.98} \times \sqrt{625} \times \sqrt{99} = ?$
 - (a) 110
- (b) 90
- (c) 200
- (d) 160
- (e) 125

ENGLISH LANGUAGE

DIRECTIONS (Qs. 71-75): Rearrange the following six sentences (A), (B), (C), (D), (E) and (F) in the proper sequence to form a meaningful paragraph; then answer the questions given below them.

- (A) Two of the best-performing major economies in 2014 were China and Brazil, with growth estimated at 7.5% and 10.5% resepectively.
- (B) Despite that limp growth, major US stock market indexes are up between 11% and 20% for the year.
- (C) Even knowing where economies are headed sometimes it is of no help to an investor.
- (D) It is hard to anticipate the direction of financial markets.
- (E) But as of December, stock markets of both nations were in the red for the year.
- By contrast, the US economy is likely to have expanded at only about 2.6% for the year.

- Which of the following would be the **SECOND** sentence? 71.
 - (a) A (c) D
- (b) C (d) E
- (e) F
- Which of the following would be the **FOURTH** sentence?
 - (a) A
- (b) B
- (c) C
- (d) E

- (e) F
- Which of the following would be the FIFTH sentence?
 - (a) A
- (b) B
- (c) C
- (d) D

- (e) F
- Which of the following would be the FIRST sentence?
 - (a) B
- (b) C
- (c) D
- (d) E
- (e) F
- Which of the following would be the SIXTH (LAST) sentence?
 - (a) A
- (b) B
- (c) C
- (d) D
- (e) E

DIRECTIONS (Qs. 76-80): Read each sentence to find out whether there is any grammatical error in it or a wrong word has been used. The error, if any, will be in one part of the sentence which has been printed in bold and has been numbered (a), (b), (c) or (d). The number of that part is the answer. If there is no error, the answer is (e) i.e. 'No error'. (Ignore the errors of punctuation, if any.)

- The convergence of (a)/Indian accounting standards with International Financial Reporting Standards (IFRS) beginning (b)/in April is expecting to (c)/ see power companies struggling with (d)/ significant first-time adoption impact. No error (e)
- Researchers at (a)/ the Indian Institute of Science (IISc), Bangalore, are **mapping** (b)/ India's solar hot spots-where round-the-year (c)/ sunlight makes it viable of (d)/ companies to set up solar power plants. No error (e).
- Though their qualifications span a diverse (a)/ range, there is an equal (b)/ number of graduates and those who have just completed School, each set (c)/ making up (d)/ close to 30% of these households. No error (e)
- As if (a)/ the most dangerous moment for any dictatorship is when (b)/ it starts to (c)/ reform, North Korea looks ready to turn that truism on its head. (d)/ No error (e)
- It so happens (a)/ that this happy campy ritual is their way of life (b)/ and one into which (c)/ they don't particularly welcome (d)/ voyeuristic intrusions. No error (e)

DIRECTIONS (Qs. 81-90): Read the following passage carefully and answer the questions given below it. Certain words/ phrases are printed in **bold** to help you to locate them while answering some of the questions.

The outside world has pat answers concerning extremely impoverished countries, especially those in Africa. Everything comes back, again and again, to corruption and mis-rule. Western officials argue that Africa simply needs to behave itself better, to allow market forces to operate without interference by corrupt rulers. Yet the critics of African governance have it wrong.

Politics simply can't explain Africa's **prolonged** economic crisis. The claim that Africa's corruption is the basic source of the problem does not withstand serious scrutiny. During the past decade I witnessed how relatively well-governed countries in Africa, such as Ghana, Malawi, Mali and Senegal, failed to prosper, whereas societies in Asia perceived to have **extensive** corruption, such as Bangladesh, Indonesia and Pakistan, enjoyed rapid economic growth.

What is the explanation? Every situation of extreme poverty around the world contains some of its own unique causes, which need to be diagnosed as a doctor would a patient. For example, Africa is burdened with malaria like no other part of the world, simply because it is unlucky in providing the perfect conditions for that disease; high temperatures, plenty of breeding sites and particular species of malaria-transmitting mosquitoes that prefer to bite humans rather than cattle.

Another **myth** is that the developed world already gives plenty of aid to the world's poor. Former U.S. Secretary of the Treasury, Paul O'Neil expressed a common frustration when he remarked about aid for Africa: "We've spent trillions of dollars on these problems and we have damn near nothing to show for it". O'Neil was no foe of foreign aid. Indeed, he wanted to fix the system so that more U.S. aid could be justified. But he was wrong to believe that vast flows of aid to Africa had been **squandered**. President Bush said in a press conference in April 2004 that as "the greatest power on the face of the earth, we have an **obligation** to help the spread of freedom. We have an obligation to feed the hungry". Yet how does the U.S. fulfill its obligation? U.S. aid to farmers in poor countries to help them grow more food runs at around \$200 million per year, far less than \$1 per person per year for the hundreds of millions of people living in subsistence farm households

From the world as a whole, the amount of aid per African per year is really very small, just \$30 per sub-Saharan African in 2002. Of that **modest** amount, almost \$5 was actually for consultants from the donor countries, more than \$3 was for emergency aid, about \$4 went for servicing Africa's debts and \$5 was for debt-relief operations. The rest, about \$12, went to Africa. Since the "money down the drain" argument is heard most frequently in the U.S., it's worth looking at the same calculations for U.S. aid alone. In 2002, the U.S. gave \$3 per sub-Saharan African. Taking out the parts for U.S. consultants and technical cooperation, food and other emergency aid, administrative costs and debt relief, the aid per African came to grand total of 6 cents.

The U.S. has promised repeatedly over the decades, as a signatory to global agreements like the Monterrey Consensus of 2002, to give a much larger proportion of its annual output, specifically upto 0.7% of GNP, to official development assistance. The U.S. failure to follow through has no political fallout domestically, of course, because not one in a million U.S. citizens even knows of statements like the Monterrey Consensus. But no one should underestimate the salience that it has around the world. Spin as American might about their nation's generosity, the poor countries are fully aware of what the U.S. is not doing.

- 81. The passage seems to emphasize that the outside world has
 - (a) correct understanding about the reasonable aid provided by the USA to the poor countries

- (b) definite information about what is happening in under developed countries
- (c) stopped extending any financial aid to under developed countries
- (d) misconceptions about the aid given to the poor nations by developed countries
- (e) None of these
- 82. According to the Westerners the solution to eradicate poverty of African nations lies in
 - (a) corruption
 - (b) improving their own national behaviour
 - (c) mis-rule
 - (d) prolonged economic crisis
 - (e) None of these
- 83. The author has given the example of Bangladesh, Indonesia and Pakistan in support of his argument that
 - (a) corruption is the major culprit in the way of prosperity
 - (b) mis-governance hampers the prosperity of nations
 - (c) despite rampant corruption, nations may prosper
 - (d) developed nations arrogantly neglect under developed countries.
 - (e) None of these
- 84. The author has mentioned Ghana as a country with
 - (a) reasonably good-governance
 - (b) corrupt leadership
 - (c) plenty of natural resources
 - (d) rapid economic growth
 - (e) None of these
- 85. The cases of malaria in Africa are mainly due to
 - A. high temperature.
 - B. climatic conditions conducive for breeding.
 - C. malaria carries liking for human blood in preference to that of cattle.
 - (a) None of these
- (b) Only B and C
- (c) Only A and C
- (d) Only A and B
- (e) All the three

DIRECTIONS (Qs. 86-88): Choose the word/group of words which is **most nearly the same** in meaning to the word/group of words printed in **bold** as used in the passage.

86. **OBLIGATION**

- (a) lip sympathy
- (b) true sympathy
- (c) self pity
- (d) conditional responsibility
- (e) moral binding

87. **SQUANDER**

- (a) use economically
- (b) spend wastefully
- (c) siphon judiciously
- (d) donate generously
- (e) None of these

88. MODEST

- (a) humble
- (b) sufficient
- (c) meagre
- (d) sober
- (e) unpretentious

DIRECTIONS (Qs. 89-90): Choose the word/group of words which is most opposite in meaning of the word given in bold as used in the passage.

MYTH 89.

- (a) reality
- (b) mystery
- (c) misery
- (d) misconception
- (e) exaggeration

EXTENSIVE

- (a) intensive
- (b) abominable
- (c) inherent
- (d) rampant
- (e) negligible

DIRECTIONS (Qs. 91-100): *sIn the following passage there* are blanks, each of which has been numbered. These numbers are printed below the passage and against each five words are suggested, one of which fit the blank appropriately. Find out the appropriate word in each case.

Economic backwardness of a region is (91) by the coexistence of unutilized (92) on the one hand and (93) natural resources on the other. Economic development essentially means a process of (94) change whereby the real per capita income of an economy (95) over a period of time. Then a simple but meaningful question arises; what causes economic development? Or what makes a country developed? This question has absorbed the (96) of scholars of socio-economic changes for decades. Going through the (97) history of developed countries like America, Russia and Japan, man is essentially found as (98) in the process of economic development. Japan, whose economy was (99) damaged from the ravages of the 2nd world War, is the example of our time to (100) kingdom role in economic development.

- (a) Developed 91.
 - **Improved** (c)
 - Characterized (e)
- 92. Source (a)
 - Funds (c)
 - Industries (e)
- 93. Exhaustive (a) (c) Abundant
 - Unreliable (e)
 - Upward (a)

94.

95.

- (c) Negligible
- Sudden (e)
- Diminishes (a)
- Increases (c)
- (e) Stabilizes
- 96. (a) Plans
 - (c) Attention Strategy
- 97. Existing (a)

(e)

- (c) Ancient
- (e) Discouraging
- 98. Pivotal (a)
 - (c) Insignificant
 - (e) Vicious
- 99. (a) Increasingly
 - Gradually (c)
 - (e) Badly
- 100. (a) Enlighten
 - Negate
 - (e) Belittle

- Cured (b)
- (d) Enhanced
- Finance (b)
- (d) Manpower
- Unexploited (d) Indefinite
- Drastic
- Incredible (d)
- Degenerates
- Succumbs (d)
- Attempts (b)
- Resources
- (b) Glorious
- Economic
- Neutral (b)
- Enchanted
- Always
- Deliberately
- Validate
- (d) Underestimate

HINTS & SOLUTIONS

(1-5):

| Student | Standard | Favourite | | |
|---------|----------|-------------|--|--|
| | | Subject | | |
| P | V | Geography | | |
| Q | VII | History | | |
| R | VI | English | | |
| S | IV | Mathematics | | |
| T | VIII | Hindi | | |
| V | X | Science | | |
| W | IX | Sanskrit | | |

- 1. (b) W studies in Standard IX.
- 2. (a) Plikes Geography.
- 3. (c) S likes Mathematics.
- 4. (e) P studies in Standard V.
- 5. (d) The Combination V-X-Science is correct.

(6 - 10):

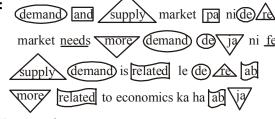
- (i) A > D > G
- (ii) C > E > H
- (iii) D > B > F
- (iv) G > C
- (v) F > G
- From all the statements

- **6. (e)** All statements are true.
- 7. **(b)** According to question

It is not clear whether C and J are of same height, But, J is definitely shorter than D.

- 8. (a) $A > D > \boxed{B} > F....$ 3rd from top
- **9. (b)** G, C, E and H are shorter than F.
- **10. (e)** All the statements are necessary to answers the question.

(11 to 15):



Hence, codes are:

 $demand \Rightarrow de \qquad needs \Rightarrow fe$

and \Rightarrow pa more \Rightarrow ja

supply \Rightarrow re is \Rightarrow le

 $market \Rightarrow ni$ $related \Rightarrow a b$

to \Rightarrow ka or ha economics \Rightarrow ka or ha

- 11. (e) The codes for economics is either 'ka or 'ha'.
- 12. **(b)** supply \Rightarrow re related \Rightarrow ab market \Rightarrow ni

- 13. (d) The code for more is 'ja'
- 14. (a) market \Rightarrow ni

 $needs \Rightarrow fe$

more ⇒ ja

The code for customers may be 'sa;.

- 15. (b) The code for 'needs' is fe.
- **16.** (c) $E \ge F = G \ge T = I$

Conclusions:

I. $I \le E$: Not True

II. I = E: Not True

I is either smaller than or equal to E. Therefore, either conclusion I or II follows.

17. (a) G > H < T

I > F

H > J

G > H > J

J < H < T

Conclusions:

I. J < G: True

II. F < H: Not True

So only conclusion I follows.

18. **(b)** V > W < X < Y

V > W < X < Z

Conclusions:

I. Z > V: Not True

II. Y > W: True

So only conclusion II is true.

19. (a) M > N > P

O > P

S < P

M > N > P < O

M > N > P > S

O > P > S

Conclusions:

I. S < M: True

II. O < M: Not True

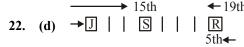
20. (a) M > A > E > F < G

Conclusions:

I. M > E: True

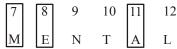
II. G < A : Not True

21. (a) Except Paper, all others are writing materials. We write or mark something on paper.



Total number of children in the row = 19 + 5 - 1 = 23Shweta's position from right end = 23 - 15 + 1 = 9th

23. **(b)** 1 2 3 4 5 6



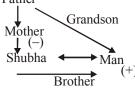
Specified letters \Rightarrow D, R, M, E, A

Meaningful word ⇒ DREAM

24. (b)N | R | | S

So there are two persons between Rani and Nishant.

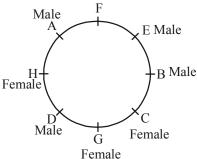
25. (b) Father



- **26. (d)** 125 is perfect cube of 5.
- **27.** (a) A person can get wealth from money in the same way a person can get kindness from pity.

Female

(28 - 32):



F is the wife of D.

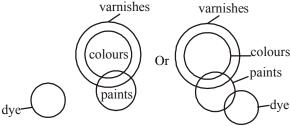
B is the son of D and F.

H is the daughter D and F.

C is the wife B.

A's brother is E.

- **28.** (d) B is the son of D
- **29. (b)** H is mother of A, E And E and G. H sits second to left of G.
- **30. (b)** One person sits between A and his brother E.
- **31.** (e) A sits exactly between H and F.
- 32. (a) E is the brother of A.
- (33-34):



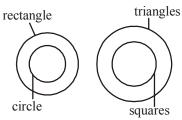
33. (a) Conclusion: I (True)
II (False)

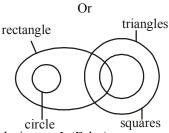
So only conclusion I follows.

34. (e) Conclusion : I (True) II (True)

So both the conclusions follow.

35.





- **35. (d)** Conclusion: I. (False) II. (False)
- 36. **(b)** $0.5 \times 1 + 1 = 1.5$ $1.5 \times 2 + 2 = 5$ $5 \times 3 + 3 = 18$ $18 \times 4 + 4 = 76$ $76 \times 5 + 5 = 385$
- **37.** (c) 65 + 7; 72 + 14; 86 + 28; 114+ 56= 170
- **38. (b)** (63-1)/2; (31-1)/2; (15-1)/2; (7-1)/2; (3-1)/2 = 1
- 39. (a) In this series, 5 is added to the previous number; the number 70 is inserted as every third number.
- **40. (b)** This is a simple alternating addition and subtraction series. The first series begins with 8 and adds 3; the second begins with 43 and subtracts 2.
- **41. (b)** From both equation x = 7/12, y = 16/3 y > x
- 42. (e) xy + 3y + 2x + 6 = 12 2xy + 6y + 4x = 12 ...(i) 2xy + 5y + 4x = 11 ...(ii)

From equation (i) and (ii)

y = 1

From equation (i)

x = 1

x = y

43. (b) (3x-2)/y = (3x+6)/(y+16)48x-8y=32 ...(i)

(x + 2)/(y + 4) = (x + 5)/(y + 10)y = 2x ...(ii)

From equation (i) & (ii)

x = 1, y = 2

y > x

44. (b) From the given equation x = 1, -46

&
$$y = -4, 6$$

y > x

45. (a) From 1st equation

$$x^2 - 6x = 0$$

x = 0.6

From 2nd equation

(y+4)(y-5)

y = -4, 5

x > y

46. (c) A is a triangle

So, area of A = $1/2 \times 16 \times 12 = 96$ sqm

So, cost of flooring of A = $96 \times 50 = ₹4800$

47. (a) Perimeter of B = 2(10 + 20) = 60 mSo, cost of fencing of B = $60 \times 15 = 900$

Perimeter of $C = 4 \times 15 = 60 \text{ m}$

So, cost of fencing of $C = 60 \times 18 = 71080$

So, required difference = 1080 - 900 = ₹180

48. (d) Area of D = Base × Height = $20 \times 12 = 240$ mtr sq So, cost of flooring of D= $240 \times 60 = ₹ 14400$

Perimeter of D = 2(20 + 12) = 64 mSo, cost of fencing of D = $64 \times 25 = ₹ 1600$ So, required ratio = 14400 : 1600 = 9 : 1

- (d) Perimeter of E = $2\pi r = 2 \times 22/7 \times 10 = 440/7 \text{ m}$ Cost of fencing of E = $440/7 \times 22 = ₹ 1382.85$ Area of C = $15 \times 15 = 225$ mtr square So, cost of flooring of $C = 225 \times 40 = 79000$ So, required $\% = 1382.85 \times 100 / 9000$ = 15.36% of flooring cost of C.
- **(b)** Fencing cost of C = ₹ 1080**50.** Fencing cost of D = $\mathbf{\xi}$ 1600 Required $\% = 1080/1600 \times 100 = 67.5\%$
- Number of soldiers in Jat regiment = $10000 \times 35\%$ = Number of Hindu soldiers in Jat regiment = $3500 \times$ $\frac{4}{5} = 2800$
- (b) Number of Hindu soldiers in Madras regiment = $10000 \times 15\% \times \frac{2}{3} = 1000$ Number of soldiers of other religions in Bihar regiment = $10000 \times 12\% \times \frac{3}{8} = 450$ So, difference = $1000 - \frac{3}{8} = 450 = 550$
- (d) Number of Hindu soldiers in Sikh regiment = 10000 $\times 20\% \times \frac{3}{8} = 750$ Number of soldiers of other religions in Maratha

regiment =
$$10000 \times 18\% \times \frac{2}{5} = 720$$

So, required % = 104.16%

Number of non-Hindu soldiers in Jat regiment = 3500 - 2800 = 700

Similarly in Sikh regiment = $10000 \times 20\% \times \frac{5}{8} = 125$

In Madras regiment = $10000 \times 15\% \times \frac{1}{3} = 500$

In Maratha regiment = $10000 \times 18\% \times \frac{2}{5} = 720$

In Bihar regiment = $10000 \times 12\% \times \frac{3}{8} = 450$

In Maratha regiment the number of non-Hindu soldiers is the maximum.

(e) Number of Hindu soldiers in Bihar regiment = 10000 $\times 12\% \times \frac{5}{8} = 750$

> Number of non-Hindu soldiers in Jat regiment = 700So, required ratio = 750 : 700 = 15 : 14

P = 29000 CI = 9352.5 N = 2 years A = P + I = 38,352.50Substituting the values in

$$A = P \left(1 + \frac{R}{100} \right)^n$$

Solving we get R = 15%.

(b) The required time will be the LCM of 8, 18 and 15 which is 360 sec or 6 minutes.

- (c) $R^2 = 39424$ **58.** R = 112Perimeter of square = 4a = 112Side of square = 112/4 = 28Area of square = $28^2 = 784$ cm².
- (a) Number of ways = ${}^5C_2 \times {}^6C_2 \times {}^3C_1 = 450$ (d) Number of ways = ${}^{11}C_2 \times {}^3C_3 = 55$.
- **60.**
- Required number of days = $(30 \times 36)/18 = 60$ 61. (c)
- Let total income of Ram be x. Then **62.** (100 - 50 - 20 - 5)% of x = 11250x = 45000.
- 63. (e) Let the number be xy (10x + y) - (10y + x) = 54x - y = 6 And x + y = 12Solving the equations we get x = 9 and y = 3So the number is 93.
- 64. (a) Let the age of Geeta's daughter be x. Then Geeta's age is 8x. (8x + 8)/(x + 8) = 10/3x = 4Geeta's present age = 8x = 32 years.
- 65. Required number of ways = $4! \times 3! \times 2! = 288$. (c)
- $9228.789 \sim 9230$; $5021.832 \sim 5020$ and $1496.989 \sim 1500$ **66.** (d) Now the equation will become 9230 - 5020 + 1500 = ?? = 5710But the nearest value is 5700.

[Note: Even rounding of the numbers to nearest hundred places gives the same

- 67. (a) 1002 ~1000; 49~ 50; 99~ 100 and 1299~ 1300 Now the equation will become $1000 \div 50 \times 100 - 1300 = ?$ $20 \times 100 - 1300 = ?$ 2000 - 1300 = ?? = 700
 - (d) The difference between two nearest values is 70 (210 and 280). So round off the numbers to the nearest integers. 29.8% of $260 \sim 30\%$ of 260; 60.01% of $510 \sim 60\%$ of 510 and 103.57 ~104 Now the equation will become 30% of 260 + 60% of 510 - 104 = ? $30/100 \times 260 + 60/100 \times 510 - 104 = ?$ 78 + 306 - 104 = ?? = 384 - 104 = 280
- (a) $(21.98)^2 = (22)^2$ $(25.02)^2 = (25)^2$ and $(13.03)^2 = (13)^2$ The equation will becomes $22^2 - 25^2 + 13^2 = ?$ 484 - 625 + 169 = ?653 - 625 = ?? = 28 so the nearest value is 25
- 70. (e) $\sqrt{24.98} \times \sqrt{6.25} \times \sqrt{99} = ?$ $5 \times 2.5 \times 10 = 125$
- **(b) 72.** (d) 73. **(b)** (e) (c)
- 77. (d) **78.** (a) (d) (d) (c)
- 81. (d) **82. (b)** 83. (c) 85. (e) (a)
- (e) **87. (b)** 88. (a) 90. 86. (a) **(e)**
- 91. 92. (d) 93. 95. (e) **(b)** 94. **(b)** (c)
- 98. 96. (c) 97. (d) (a) 99. (e) 100. **(b)**