

CORPORATION BANK SPECIALIST OFFICER EXAM 2014

Based on Memory

REASONING ABILITY

DIRECTIONS (Qs. 1-6) : Study the following information carefully and answer the given questions :

Eight people - A, B, C, D, E, F, G and H are sitting around a circular table facing towards the centre, but not necessarily in the same order. All of them are at equidistant. Each one of them teaches different subjects viz., English, Hindi, Mathematics, Biology, Psychology, Physics, Chemistry and Accounts, but not necessarily in the same order.

The person who teaches Accounts, sits third to the right of G. C is an immediate neighbour of G. The person who teaches Mathematics sits second to the left of C. B sits third to the right of H. H teaches neither Accounts nor Mathematics. Only two persons sit between C and the person who teaches Physics. A and F are immediate neighbours of each other. Neither A nor F teaches Accounts. The person who teaches English sits second to the right of A. Two persons sit between D and the person who teaches Hindi. D does not teach Accounts. The person who teaches Psychology is an immediate neighbour of the person who teaches Accounts. The person who teaches Physics sits second to the left of A. One of the immediate neighbours of G teaches Chemistry.

- Who among the following teaches Chemistry?
(a) A (b) H
(c) D (d) G
(e) None of these
- What is the position of B with respect to the person who teaches Psychology?
(a) Second to the left (b) Third to the right
(c) Third to the left (d) Second to the right
(e) None of these
- Who among the following sits exactly between the person who teaches Biology and the person who teaches Physics?
(a) The person who teaches Mathematics
(b) E
(c) The person who teaches Accounts
(d) Cannot be determined
(e) There is no such person
- Which of the following subjects does E teach?
(a) Chemistry (b) Hindi
(c) Accounts (d) English
(e) None of these
- Which of the following statements is true with regard to the given sitting arrangement?
(a) The person who teaches Hindi is an immediate neighbour of both H and D.

- (b) One of the immediate neighbours of F teaches Biology
 - (c) E is sitting exactly between B and the person who teaches Mathematics
 - (d) The person who teaches Chemistry is second to the right of E
 - (e) All are true
6. Four of the following five are alike in a certain way based on the given sitting arrangement and hence form a group. Which is the one that does not belong to the group?
- | | |
|--------|--------|
| (a) CF | (b) GA |
| (c) BD | (d) EH |
| (e) BA | |

DIRECTIONS (Qs. 7-11): Study the following information carefully and answer the given questions :

Twelve persons are sitting in two parallel rows containing six persons each, in such a way that there is an equal distance between adjacent persons. In Row-I, A, B, C, D, E and F are seated (but not necessarily in the same order) and all of them are facing south. In Row-2, P, Q, R, S, T and U are seated (but not necessarily in the same order) and all of them are facing north. Therefore, in the given sitting arrangement each person seated in a row faces another person of the other row.

S sits immediate the right of U. S does not sit at any extreme end. Two persons sit between P and Q. T sits third to the left of U. R is not an immediate neighbour of U.

F sits third to the right of D. C does not sit at any extreme end. One person sits between B and D. D sits second to the left of C. C is not an immediate neighbour of B and A.

- Who among the following are sitting at the extreme ends of any row?
(a) ST (b) EB
(c) FB (d) TP
(e) DE
- What is the position of S with respect to R?
(a) Third to the right (b) Second to the right
(c) Third to the left (d) Second to the left
(e) Fourth to the right
- Four of the following five are alike in a certain way based on their sitting arrangement and hence form a group. Which one does not belong to the group?
(a) CR (b) BQ
(c) FT (d) AS
(e) EU
- What is the position of A with respect to E?
(a) Second to the right (b) Second to the left
(c) Third to the left (d) Third to the right
(e) Immediate left

11. If all the six persons of Row-1 (A, B, C, D, E and F) are asked to sit in an alphabetical order from left to right, the positions of how many will remain unchanged as compared to their original sitting position?
- (a) None (b) Two
(c) Three (d) One
(e) More than three

DIRECTIONS (Qs. 12-15) : In each of the questions below, three state-ments are given followed by two conclusions numbered I and II. You have to take the three statements to be true even if they seem to be at variance from the commonly known facts and then decide which of the given conclusions logically follows from the given statements disregarding the 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 II follows.

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

Give answer (e) if both conclusions I and II follow.

12-13 :

Statements :

All diamonds are stones.

All stones are gems.

No gem is a diamond.

12. **Conclusions :**

I. All gems are stones. II. All diamonds are gems.

13. **Conclusions :**

I. No gem is a diamond. II. No diamond is a stone.

14. **Statements :**

No day is night.

All nights are noons.

No noon is evening.

Conclusions :

I. No day is noon. II. No night is evening.

15. **Statements :**

All jackets are trousers.

No trouser is shirt.

Some shirts are caps.

Conclusions :

I. Some caps are jackets. II. Some shirts are jackets.

DIRECTIONS (16-20) : Study following information to answer the given questions :

Six people C, D, E, F, G and H—are standing in a straight line facing north not necessarily in the same order. D is standing second to the right of F. C is standing fourth to the left of H and H is not standing on the extreme end of the line. E is standing second to the right of D.

16. What is the position of G with respect to E ?
- (a) Immediate left (b) Second to the left
(c) Third to the left (d) Third to the right
(e) None of these
17. Which of the following pairs represents the people standing at the extreme ends of the line?
- (a) FH (b) CE
(c) DE (d) CH
(e) None of these

18. Who is standing second to the right of C ?
- (a) F (b) D
(c) G (d) E
(e) None of these
19. Four of the following five are alike in a certain way based on their positions in the above arrangement and so form a group. Which of the following does not belong to the group ?
- (a) CG (b) GE
(c) GH (d) DE
(e) FD
20. If all the people are asked to stand in an alphabetical order from left to right, the positions of how many will remain unchanged ?
- (a) One (b) Two
(c) Three (d) None
(e) None of these

DIRECTIONS (Qs. 21- 25): In each question below is given a statement followed by three courses of action numbered I, II and III. A course of action is a step or administrative decision to be taken for improvement, follow-up or further action in regard to the problem, policy, etc. On the basis of the information given in the statement, you have to assume everything in the statement to be true, then decide which of the suggested courses of action logically follow(s) for pursuing.

21. **Statement :** The major road connecting the two main parts of the city is inundated due to heavy rains during past two days.

Courses of action :

I. The government should immediately send a relief team to the affected area.

II. The municipal authority should make immediate effort to pump out water from the road.

III. The municipal authority should advise the general public to stay indoors till the water is cleared.

- (a) Only I follows (b) Only I and II follow
(c) Only I and III follow (d) Only II and III follow
(e) All of these

22. **Statement:** The prices of essential commodities have gone up substantially during the past few weeks.

Courses of action :

I. The government should set up an expert committee to study the trend of prices.

II. The government should immediately abolish taxes on essential commodities.

III. The government should advise the general public to refrain from purchasing essential commodities for few days.

- (a) None follows (b) Only I follows
(c) Only II follows (d) Only III follows
(e) Only I and II follow

23. **Statement :** Large number of students of the local school fell ill after having their midday meal provided by the school.

Courses of action :

I. The government should immediately suspend the school Principal.

- II. The school authority should initiate an enquiry to find out the reason for students' sickness.
- III. The government should instruct all the schools to suspend their midday meal scheme till further order.
- (a) Only I follows (b) Only II follows
(c) Only III follows (d) Only II and III follow
(e) None of these
24. **Statement :** Many people living in the slums of western part of the town are diagnosed to be suffering from malaria.
- Courses of action :**
- I. The municipal corporation should immediately make necessary arrangements to spray mosquito repellent in the affected area.
- II. The municipal authority should immediately make necessary arrangements to provide quick medical help to the affected people.
- III. The municipal authority should take steps to shift all the people staying in the slums of western part of the town to other areas.
- (a) Only I follows (b) Only II follows
(c) Only I and II follow (d) All I, II and III follow
(e) None of these
25. **Statement:** Many teachers of the local school have rendered their resignation to the Principal to protest the management's decision for not implementing revised pay scales.
- Courses of action :**
- I. The school management should accept the resignations and appoint new teachers.
- II. The school management should persuade the teachers to continue with an assurance of considering the pay hike issue.
- III. The school management should approach the government for guidelines.
- (a) None follows (b) Only either I or II follows
(c) Only III follows (d) Only I follows
(e) Only II follows
26. **Statement:** The Government has decided to construct an eight-lane super highway across the state to facilitate fast movement of vehicles.
- Which of the following can be an **assumption** which is implicit in the above statement?
- (a) The Government has adequate resources to construct the proposed super highway
(b) The people of the state may protest against the Government's decision as their farm land will be taken over the Government for constructing the highway.
(c) The Government may find it difficult to enrol a suitable contractor for constructing the highway.
(d) There is no other highway which can be used for transportation of goods across the state
(e) None of these
27. In a certain code CONQUER is written as MNBRQDT. How is STEAMER written in that code?
- (a) DRSBQDL (b) DSRBLDQ
(c) DSRZQDL (d) DSRBQDL
(e) None of these
28. How many such pairs of letters are there in the word ADJUSTING each of which has as many letters between them in the word as in the English alphabet ?
- (a) None (b) One
(c) Two (d) Three
(e) More than three
29. W walked 30 metres towards South, took a left turn and walked 50 metres, again he took a left turn and walked 30 metres. How far is he from the starting point ?
- (a) 80 metres (b) 100 metres
(c) 130 metres (d) 50 metres
(e) None of these
30. **Cause :** A severe cyclonic storm swept away most part of the state during the last two days.
- Which of the following cannot be a possible effect of the above cause ?
- (a) Heavy rainfall was reported in most part of the state during the last two days.
(b) Many people were rendered homeless as their houses were blown away.
(c) The communication system of the state was severely affected and continues to be out of gear.
(d) Government has ordered that all the offices and schools should be kept open.
(e) All are possible effects.
31. **Effect :** The temple at the religious site wears a deserted look with the number of devotees trickling down.
- Which of the following can be a possible cause of the above effect?
- (a) A structural engineer had visited the temple a month back and had declared the structure unsafe.
(b) The temple is facing a drastic depletion of its funds which had accumulated over the years due to offerings made by devotees.
(c) The local corporation decided to donate a huge amount of money to the temple for its renovation.
(d) The village housing the religious site has qualified priests to perform religious ceremonies.
(e) A famous actor recently visited the temple and paid his respects to the deity.
32. **Statement:** The constable has been recommended for a suitable reward by his superior in recognition of his sincere duty and busting of several gangs of criminals actively involved in the loot and incidents of pick pocketing.
- Which of the following can be a possible assumption of the above statement ?
- (a) The superior is certain that the recommendation would be denied.
(b) The number of criminals apprehended by this particular constable was exceptionally high.
(c) The constable desires to be monetarily compensated for his efforts.
(d) The superior wants to set an example for his other juniors by recommending the reward.
(e) Rewards recognising the sincerity and accomplishments of policemen are given.

33. Which of the following groups of alphabets should replace the blank spaces so that the group of alphabets, given in bold, follow a logical pattern from the preceding and the following group of alphabets ?

bw _ yza dstuv _ _ opqre

- (a) x, e, d (b) x, c, f
(c) v, e, f (d) x, c, d
(e) x, e, n

DIRECTIONS (Qs. 34): Read the following statements carefully and answer the questions which follow.

34. According to a recent government directive, all bank branches in rural areas should be computerized. Which of the following statements would weaken the government's argument ?
- (a) Computerisation of bank branches in urban areas has helped in making their performance more efficient and fast.
(b) Lack of skilled and qualified manpower has been suitably substituted by computers in banks.
(c) Non-computerised bank branches in the rural areas have been proved to be as efficient as their computerized counterparts.
(d) The government has introduced a special test for computer knowledge in all recruitment exams for banks.
(e) Unemployment in the rural areas could be controlled by training more and more professionals in computers.
35. If 'B × C' means 'B is the daughter of C', 'B + C' means 'B is the husband of C' and 'B – C' means 'B is the sister of C' then what does 'M + N – P × Q' mean ?
- (a) M is the brother-in-law of Q
(b) M is the uncle of Q
(c) M is the son-in-law of Q
(d) Q is the mother-in-law of M
(e) None of these

DIRECTIONS (Qs. 36-40): Study the following information carefully and answer the questions given below :

Following are the conditions for selecting Marketing Manager in an organisation :

The candidate must :

- (i) be at least 30 years old as on 01.03.2013
(ii) have secured at least 55 per cent marks in graduation
(iii) have secured at least 60 per cent marks in Post graduate Degree/Diploma in Marketing.
(iv) have post qualification work experience of at least five years in the Marketing Division of an organisation.
(v) have secured at least 45 per cent marks in the selection process.

In the case of a candidate who satisfies all other conditions **except -**

- (A) at (iv) above, but has post qualification work experience of at least two years as Deputy Marketing Manager, the case is to be referred to GM-Marketing.
(B) at (ii) above, but has secured at least 65 per cent marks in Post graduate Degree/Diploma in Marketing Management, the case is to be referred to Vice President-Marketing.

In each question below is given details of one candidate. You have to take one of the following courses of actions based on the information provided and the conditions and subconditions given above and mark your answer accordingly. You are not to assume anything other than the information provided in each question. All these cases are given to you as on 01.03.2013.

Mark answer (a) if the candidate is not to be selected.

Mark answer (b) if the candidate is to be selected.

Mark answer (c) if the data are inadequate to take a decision.

Mark answer (d) if the case is to be referred to Vice President - Marketing.

Mark answer (e) if the case is to be referred to GM-Marketing.

36. Suresh Mehta has secured 58 per cent marks in graduation. He was born on 19th May 1979. He has secured 50 per cent marks in the selection process. He has been working for the past seven years in the Marketing division of an organisation after completing his Post Graduation with 62 per cent marks.
37. Sudha Gopalan has secured 50 per cent marks in both selection process and graduation. She has been working for the past six years in the Marketing division of an organisation after completing her Post Graduate Diploma in Marketing with 70 per cent marks. She was born on 14th October, 1982.
38. Divya Kohli has been working for the past five years in Marketing division of an organisation after completing her Post Graduate Diploma in Marketing with 65 per cent marks. She has secured 55 per cent marks in graduation and 50 per cent marks in the selection process. She was born on 2nd April 1979.
39. Navin Marathe was born on 8th April 1979. He has secured 60 per cent marks in both graduation and Post-Graduate Degree in Marketing. He has been working for the past six years in the Marketing division of an organisation after completing his PG Degree in Marketing. He has secured 50 per cent marks in the selection process.
40. Varun Malhotra was born on 3rd July 1980. He has been working as Deputy Marketing Manager in an organisation for the past three years after completing his Post Graduate Degree in Marketing with 65 per cent marks. He secured 55 per cent marks in both graduation and selection process.

DIRECTIONS (Qs. 41-45): Study the following information to answer the given questions :

In a certain code 'it is rush hour traffic' is written as 'sa le do mi ru' 'go to school' is written as 'be no pa', 'one hour to go' is written as 'mi fi pa be', 'rush to one' is written as 'fi be sa' and 'traffic is fine' is written as 'ga ru do'.

41. Which of the following represents 'school hour go fine' ?
- (a) pa be fi ga (b) no mi ra pa
(c) pa no ga mi (d) ga no mi le
(e) None of these
42. 'mi fi le' would mean _____
- (a) it one to (b) to rush one
(c) rush hour it (d) it one hour
(e) None of these

43. What does 'sa' stand for?
 (a) rush (b) traffic
 (c) it (d) is
 (e) None of these
44. Which of the following may represent 'traffic is for one hour' ?
 (a) fi ye no mi ru (b) fi le do mi ru
 (c) fi ye do mi ru (d) fi so do mi ro
 (e) None of these
45. What does 'do' stand for?
 (a) hour (b) 'is' or 'traffic'
 (c) it (d) is
 (e) None of these

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

Seven flights namely Jet Air-ways, British Airways, Delta, Quantas, Emirates, Lufthansa, Air India are scheduled to fly to London. There is only one flight to London on each of the seven days of the week, starting from Monday and ending on Sunday.

Delta flies on Wednesday. Air India flies the day next to British Airways. British Airways does not fly on Monday or Friday. Two airlines fly between the days British Airways and Emirates fly. Emirates does not fly on Sunday. Quantas flies a day before Lufthansa.

46. On which of the following days does Jet Airways fly ?
 (a) Friday (b) Sunday
 (c) Tuesday (d) Thursday
 (e) None of these
47. How many flights fly between Lufthansa and Delta ?
 (a) None (b) One
 (c) Two (d) Three
 (e) Five
48. Which of the following flights flies on Friday ?
 (a) Air India (b) Quantas
 (c) Emirates (d) Lufthansa
 (e) Jet Airways
49. If Delta postpones its flight to Sunday owing to some technical reasons and all the flights scheduled for Thursday to Sunday are now made to take off a day ahead of the schedule, which of the following flights would now fly on Friday?
 (a) Lufthansa (b) Jet Airways
 (c) British Airways (d) Air India
 (e) Quantas
50. If Emirates is related to British Airways and Delta is related to Quantas in a certain way based upon the given flight schedule, then Jet Airways will be related to which of the following based upon the same relationship ?
 (a) Lufthansa (b) Quantas
 (c) Delta (d) Air India
 (e) None of these

QUANTITATIVE APTITUDE

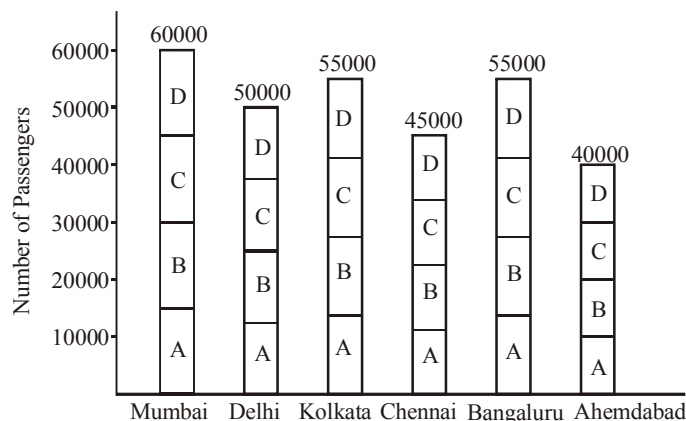
DIRECTIONS (Qs. 51-55) : In each of the following number series, a number is wrong. Find out that wrong number.

51. 2 6 15 30 45 43.5 22.5
 (a) 6 (b) 30
 (c) 45 (d) 15
 (e) 43.5
52. 950 661 436 269 146 65 16
 (a) 436 (b) 65
 (c) 269 (d) 661
 (e) 146
53. 6.5 11.8 22.4 38.3 59.5 87.3 117.8
 (a) 22.4 (b) 59.5
 (c) 11.8 (d) 38.3
 (e) 87.3
54. 1 2 4 9 23 69 186
 (a) 2 (b) 9
 (c) 23 (d) 4
 (e) 69
55. 250 239 216 181 136 75 4
 (a) 239 (b) 181
 (c) 75 (d) 216
 (e) 136
56. What will be the difference between the interest accrued on a sum of ₹ 4500 at 12% per annum for 2 years and that on a sum of ₹ 5600 at 9% per annum for 2 years ?
 (a) ₹ 75 (b) ₹ 72
 (c) ₹ 69 (d) ₹ 76
 (e) None of these
57. If 50% of a certain number is equal to $\frac{3}{4}$ th of another number, what is the ratio between the numbers ?
 (a) 3 : 2 (b) 2 : 5
 (c) 5 : 2 (d) 3 : 4
 (e) 4 : 3
58. A 320 metre long train crosses a pole in 16 seconds. It stops five times of duration 18 minutes each. What time will it take in covering a distance of 576 km ?
 (a) 9 hours (b) $9\frac{1}{4}$ hours
 (c) $9\frac{1}{2}$ hours (d) $8\frac{1}{2}$ hours
 (e) None of these

DIRECTIONS (Qs. 59 - 62): In each of the following questions, a question and three statements following it have been given. You are required to study the question and statements and decide that the information given in which statement(s) is necessary to answer the question ?

59. What is the principal?
 I. The simple interest accrued on that sum at the rate of 12% per annum in 2 years is ₹ 360 less than the compound interest on the same sum at 12% per annum in 2 years.

- II. The sum doubles itself in 10 years at 10% per annum rate of simple interest.
- III. The compound interest on the sum in 2 years at the rate of 12% per annum is ₹ 6360.
- (a) I or III (b) I and III
(c) I and II (d) II and III
(e) None of these
60. What will be the area of a 2 metre wide boundary around a rectangular field ?
- I. The breadth of the field is one-fourth of its perimeter. Area of the field is 144 sq. metre.
- II. The ratio of the length and breadth is respectively 3 : 2.
- III. Area of the field is 216 sq. metre.
- (a) I, II and III
(b) only I or II and III
(c) I and II
(d) Anyone of the three statements
(e) None of these
61. What are the marks obtained by Arnab in History ?
- I. The average marks obtained by Arnab in History, Geography and Civics are 65.
- II. Marks obtained by Arnab in Geography is 6 more than that obtained in History.
- III. Marks obtained in Geography is as much more than that in Civics as the marks obtained in Civics is more than that in History.
- (a) I and II (b) II and III
(c) I and III (d) I, II and III
(e) None of these
62. What is the speed of train ?
- I. Train crosses a signal post in 15 seconds.
- II. Train crosses a 250 metre long platform in 27 seconds.
- III. Train crosses another train running in the same direction on a parallel track in 32 seconds.
- (a) I and II (b) I and III
(c) II and III (d) Any two of the three
(e) None of these
63. What percent of discount is offered ?
- I. The profit earned on a article sold for ₹252 after discount is ₹52.
- II. If no discount were allowed, there would have been a profit of ₹80.
- III. If there were no discount, there would have been a gain of 40%.
- (a) I and II (b) II and either I or III
(c) I and III (d) I and either II or III
(e) None of these



64. What is the difference between the number of passengers travelling to all cities by the airlines A and C ?
- (a) 5000 (b) 6000
(c) 5500 (d) 6500
(e) 15000
65. The number of passengers travelling to Delhi and Kolkata by airline C is what per cent of the number of all passengers travelling by the same airline?
- (a) 32 (b) 35
(c) 38 (d) 42
(e) 44
66. What is the respective ratio of the number of passengers who travelled to Chennai and Bangaluru by airline B and that to Mumbai and Ahmedabad by airline D ?
- (a) 6 : 7 (b) 3 : 4
(c) 1 : 1 (d) 7 : 6
(e) None of these
67. The number of passengers travelling to Chennai by airline A in second quarter is 150% of that in first quarter by the same airline. The number of passengers in the second quarter by the same airline is 120% of that in the third quarter. What is the percentage increase in the number of passengers in third quarter from that in first quarter ?
- (a) 15% (b) 18%
(c) 20% (d) 25%
(e) 30%
68. The number of passengers going to Bangaluru and Kolkata in first quarter by airline B is what per cent of the number of passengers going to the same cities in second quarter if there be an increase of 30% in the number of passengers going to Bangaluru from first quarter to second quarter and in that going to Kolkata shows a 40% increase from first to second quarter ?
- (a) 68 (b) 60
(c) 65 (d) 70
(e) 74
69. What will come in place of the question mark (?) in the following question?
- $$\frac{(\frac{4}{5})}{36} = \frac{9}{(\frac{1}{5})}$$
- (a) 342 (b) 361
(c) 324 (d) 18
(e) 4

DIRECTIONS (Qs. 64 - 68) : In the following bar diagram, the number of passengers carried to different cities in first quarter of a year by four airlines A, B, C and D has been given. Study the following diagram carefully and answer the questions.

DIRECTIONS (Qs. 70 - 74): In each of the following questions equation I and equation II have been given. You have to solve both of these equations and

- | Given answer | If |
|--------------|--|
| (a) | $x < y$ |
| (b) | $x > y$ |
| (c) | $x \leq y$ |
| (d) | $x \geq y$ |
| (e) | $x = y$ or no relation between two can be established. |
70. I. $4x^2 - 32x + 63 = 0$ II. $2y^2 - 11y + 15 = 0$
71. I. $x^3 = (\sqrt[3]{216})^3$ II. $6y^2 = 150$
72. I. $12x^2 + 17x + 6 = 0$ II. $6y^2 + 5y + 1 = 0$
73. I. $20x^2 + 9x + 1 = 0$ II. $30y^2 + 11y + 1 = 0$
74. I. $x^2 + 17x + 72 = 0$ II. $y^2 + 19y + 90 = 0$
75. The average height of 16 students is 142 cm. If the height of the teacher is included, the average height increases by 1 cm. The height of the teacher is
 (a) 156 cm (b) 159 cm
 (c) 158 cm (d) 157 cm
 (e) 159.5 cm
76. The ratio of the present ages of Mahesh and Ajay is respectively 3 : 2. After 8 years, ratio of their ages will be 11 : 8. What will be the present age of Mahesh's son if his age is half of the present age of Ajay ?
 (a) 12 years (b) 24 years
 (c) 18 years (d) 9 years
 (e) None of these
77. Pipe A can fill a tank in 30 minutes while pipe B can fill it in 45 minutes. An other pipe C can empty a full tank in 60 minutes. If all three pipes are opened simultaneously, the empty tank will be filled in
 (a) $\frac{2}{7}$ hour (b) $\frac{3}{7}$ hour
 (c) $\frac{4}{7}$ hour (d) $\frac{5}{7}$ hour
 (e) None of these
78. An article was sold for ₹ 5220 at a loss of 42% of the cost price. What will be the selling price of the article for a profit of 42% ?
 (a) ₹ 12580 (b) ₹ 17280
 (c) ₹ 12780 (d) ₹ 15280
 (e) None of these
79. Geeta, Shweta and Sita started a business with investment of ₹ 4200, ₹ 8400 and ₹ 5400 respectively. In the end of the year, there was a profit of ₹ 24000. Sita invested 32% of her share in profit in the business. The remaining amount of profit with Sita is
 (a) ₹ 4986 (b) ₹ 4689
 (c) ₹ 4886 (d) ₹ 4896
 (e) None of these

DIRECTIONS (Qs. 80-84) : In the following table, populations of 6 cities have been given. Study the following table carefully and answer the questions.

City	Total Population	Percentage of adult Males	Percentage of children below 18 years of age
A	68300000	45	12
B	42500000	53	14
C	71200000	52	13
D	93500000	49	11
E	54500000	41	15
F	81200000	43	16

- * Remaining are adult females
80. By what per cent is the number of adult males in cities C and D more than that of adult females in the same cities ?
 (a) 33% (b) 30%
 (c) 35% (d) 35.9%
 (e) 40%
81. The number of children in city F is what per cent of the number of adult females in the same city ?
 (a) 35 (b) 39
 (c) 42 (d) 43
 (e) 44
82. The difference between the number of adult females in the cities A and D is
 (a) 8031000 (b) 8301000
 (c) 8130000 (d) 8231000
 (e) None of these
83. What is the adult population in cities B and F ?
 (a) 107458000 (b) 104758000
 (c) 104458000 (d) 114458000
 (e) None of these
84. What is ratio of total population of city D and city E ?
 (a) 187:109 (b) 187:119
 (c) 119:187 (d) 129:187
 (e) None of these

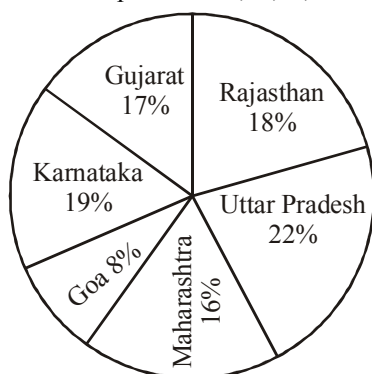
DIRECTIONS (Qs. 85-89) : What approximate value will come in place of the question mark (?) in the following questions ? (You are not required to calculate the exact value).

85. $4 \times \frac{3}{13} \times 952 - 128 \frac{5}{7} = ?$
 (a) 823 (b) 840
 (c) 835 (d) 839
 (e) 845
86. $105.01\% \text{ of } 8451 \times \frac{3}{7} \% \text{ of } 5006 + 9.999 = ?$
 (a) 8879 (b) 8860
 (c) 8850 (d) 8760
 (e) None of these

87. $10^3 \times 100^3 + 999999999 = 10^2 + 10^2$
 (a) 6, 9 (b) 9, 9
 (c) 6, 12 (d) 16, 9
 (e) 6, 18
88. $21 + 3.7 \times 2.9 = ?$
 (a) 74 (b) 70
 (c) 27 (d) 32
 (e) 44
89. $22.9782 + 9.002 - ? = 23.001$
 (a) 9 (b) 8
 (c) 6 (d) 11
 (e) 12

DIRECTIONS (Qs. 90-94) : The following questions are based on the following pie chart. In the pie chart populations of 6 states have been given. The table shows ratio of males and females. Study the diagrams carefully and answer the questions.

Total Population = 1,50,00,000



State	Male	Female
Rajasthan	1	7
Maharashtra	5	7
Uttar Pradesh	6	5
Goa	5	7
Karnataka	7	8
Gujarat	9	6

90. What is the total number of females in Gujarat and Rajasthan ?
 (a) 3482500 (b) 3382500
 (c) 3823500 (d) 3658200
 (e) None of these
91. What is the respective ratio of populations of Goa and Maharashtra ?
 (a) 1 : 2 (b) 2 : 1
 (c) 2 : 3 (d) 3 : 2
 (e) 4 : 3
92. By what per cent is the population of Rajasthan more than that of Maharashtra ?
 (a) 11.5% (b) 10.5%
 (c) 12.5% (d) 9%
 (e) 16%
93. What is the average number of males in Karnataka and Goa?
 (a) 815000 (b) 91500
 (c) 915000 (d) 925000
 (e) 935000
94. By what per cent is the population of Goa less than that of Maharashtra ?

- (a) 49% (b) 48%
 (c) 45% (d) 50%
 (e) 60%

DIRECTIONS (Qs. 95-97) : The following questions are based on the information given below. Study the following information carefully to answer the questions.

In a school students have options to read only Hindi or only Sanskrit or both Hindi and Sanskrit. Of 175 students in the school the ratio of boys and girls is 3 : 4 respectively. 40% of boys opted for Hindi only. 44% of students opted for Sanskrit only. 32% of total girls opted for both Sanskrit and Hindi. The number of boys opting for Sanskrit only and that in both Hindi and Sanskrit are in the ratio 2 : 1 respectively.

95. How many boys opted for combo (both Sanskrit and Hindi) subjects ?
 (a) 30 (b) 15
 (c) 21 (d) 32
 (e) None of these
96. What is the ratio between the number of boys who opted for Hindi only and that of girls who opted for combo subjects?
 (a) 15 : 16 (b) 10 : 7
 (c) 10 : 9 (d) 11 : 12
 (e) None of these
97. How many girls opted for Sanskrit only ?
 (a) 72 (b) 47
 (c) 51 (d) 77
 (e) None of these
98. In how many different ways can the letters of the word RUMOUR be arranged ?
 (a) 180 (b) 720
 (c) 30 (d) 90
 (e) None of these

DIRECTIONS (Qs. 99-100) : Read the following information to answer these questions.

There are 9 red, 7 white and 4 black balls in an urn.

99. Two balls are drawn at random from the urn. What will be the probability that both the balls are red ?
 (a) $\frac{18}{95}$ (b) $\frac{9}{95}$
 (c) $\frac{9}{10}$ (d) $\frac{8}{95}$
 (e) $\frac{5}{19}$
100. If two balls are selected at ran-dom what is the probability that one ball is white and the other ball is red ?
 (a) $\frac{91}{190}$ (b) $\frac{63}{190}$
 (c) $\frac{5}{19}$ (d) $\frac{4}{95}$
 (e) $\frac{71}{190}$

ENGLISH LANGUAGE

DIRECTIONS (Qs. 101-115): Read the following passage carefully and answer the questions given below. Certain words/phrases have been given in **bold** to help you locate them while answering some of the questions.

A stated objective of economic policy planning is achievement of high rates of growth of the economy and **sustained** improvement in the standards of living of people. A rapid growth in employment opportunities for all sections of the society, associated with rising GDP growth is essential to realize this objective as also to achieve the goal of Inclusive Growth.

Since India became part of the global economy and underwent economic reforms in 1991, its economy grew at a faster rate of nearly 9 per cent per annum till 2010. In the process, India has become the fourth largest economy in the world. In the last two decades, a significant proportion of the population across the country has reaped the benefits of this economic growth. They have become the part of global economy and market, and their lives have transformed into one of global citizens with all the comforts and luxury in life.

Apart from this **burgeoning** middle class in the country, the economic growth seemed to have touched the lives of the poor also. According to the National Sample Survey results, people living below poverty line have **dramatically** come down during the post economic reform era. Many economists question this dramatic change in poverty level. The fruits of economic growth have not benefited everyone uniformly. Some are left behind and some others are not touched by the benefits of economic growth. It is proved globally that the so-called trickle down effect does not work in all the societies and India is no exception to this. There are various reasons for this uneven development in the society.

Modern economy is technology driven and not labour-intensive. High volume of high quality goods and services are produced with fewer labour hands. In short, the modern economy is not generating much employment and sometimes it displaces and replaces labour with machines and tools. During this period, the unemployment rate remained almost same for rural males and decreased by just one percentage for urban male. On the other hand, unemployment among females increased by one percentage for urban and rural females. During this period, the unemployment rate remained almost same for rural males and decreased by just one percentage for urban male. On the other hand, unemployment among females increased by one percentage for urban and rural females economic development process. Such groups need government intervention to **ensure** that they are not left behind in the development process and deprived of the benefits because they do not have the capacity to be part of the global economy. The government needs to develop safety nets for such groups and try to mainstream them in the development process. They need welfare measures in the form of poverty alleviation programmes to ensure that they survive if not prosper in this era of economic reform. Further, the poor are not a homogeneous population and their capacity to survive the economic reform varied from one group of poor to another. Especially, those who are below the poverty line or the poorest among the poor need more government help.

Growing integration of our economy with the global economy has increased the **susceptibility** of the economy to the vagaries of global economic forces. Recent global recession **adversely** affected Indian economy and hence the employment scenario in the country as well.

101. Which of the following statement(s) is/are true in the context of the given passage ?
- The stated objective of economic policy planning is achievement of high rates of economic growth.
 - The other objective is sustained improvement in the standards of living of people.
 - Economic policy planning emphasises on growth of marketing sector to compete with global trade.
- (a) Only I and III (b) Only II and III
(c) Only I and II (d) Only I
(e) All I, II and III
102. Which factor(s) is/are essential to realise the objective of economic policy planning and achieve the goal of inclusive growth ?
- A rapid growth in employment opportunities.
 - Rising GDP growth
 - Increase in foreign trade
- (a) Only I and II (b) Only I and III
(c) Only II and III (d) Only III
(e) All I, II and III
103. Which of the following statements is incorrect in the context of the given passage ?
- India started economic reforms in 1991.
 - India has become the third largest economy in the world.
 - Modern economy is technology driven, and not labour-intensive.
 - Unemployment among females increased by one per cent for urban and rural females.
 - Uneven development in the society is evident in modern economy.
104. Growing integration of our economy with the global economy has increased the susceptibility of the economy ____ .
- to the vagaries of global economic forces
 - to the complexities of domestic forces
 - to black marketing and hoarding
 - to rising prices of essential commodities
 - None of these
105. According to the passage, what report do many economists question ?
- Dramatic change in poverty level as shown by National Sample Survey
 - Growth of economy at nearly 9% per annum
 - uneven development in the society
 - Decreasing inflation
 - None of these
106. What should be the best title of the passage in your opinion?
- Growing India
 - Economic reforms and uneven development
 - Economic policy planning
 - Technologically driven modern economy
 - None of these

107. Which of the following statement(s) is/are incorrect in the context of the passage ?
 (a) The unemployment rate remained almost same for rural males during last two decades.
 (b) The government needs to develop safety nets for deprived section of society
 (c) The poor are a homogeneous population
 (d) Uneven development is outcome of modern economy
 (e) None of these
108. High volume of high quality goods and services are produced with
 (a) larger labour hands
 (b) fewer labour hands i.e. technology
 (c) imported materials
 (d) domestic materials
 (e) None of these

DIRECTIONS (Qs. 109 - 112) : In the following questions, out of the five alternatives, choose the one which is most similar in meaning to the given word as used in the passage.

109. **Sustained**
 (a) interrupted (b) uninterrupted
 (c) encouraged (d) unexpected
 (e) exceptional
110. **Realize**
 (a) achieve (b) sell
 (c) convert (d) reanimate
 (e) reappear
111. **Burgeon**
 (a) develop slowly (b) run fast
 (c) develop rapidly (d) cheat people
 (e) bargain
112. **Dramatically**
 (a) expectedly (b) playing drama
 (c) change gradually (d) unexpectedly
 (e) None of these

DIRECTIONS (Qs. 113-115) : In the following questions, choose the word which is most opposite in meaning to the given word as used in the passage.

113. **Ensure**
 (a) assure (b) ensue
 (c) ensconce (d) involve
 (e) jeopardise
114. **Susceptibility**
 (a) vulnerability (b) unchangability
 (c) adaptability (d) sensibility
 (e) insensitiveness
115. **Adversely**
 (a) unfavourably (b) favourably
 (c) certainly (d) cruelly
 (e) unpleasantly

DIRECTIONS (Qs. 116-125) : Read each sentence to find out whether there is any error in it. The error, if any, will be in one part of the sentence. The number of that part is the answer. If there is no error, the answer is (e). (Ignore the errors of punctuation, if any).

116. Since most of the (a)/ employees were in (b)/ favour of the merger (c)/ it was a success. (d)/ No error (e)
117. The Reserve Bank of India are (a)/ responsible for ensuring (b)/ that the banking sector (c)/ functions effectively. (d)/ No error (e)
118. There is a shortage (a)/ for qualified staff (b)/ in many software (c)/ companies in India. (d)/ No error (e)
119. According to the survey (a)/ more of forty per cent (b)/ of Indians do not (c)/ have access to banks. (d)/ No error (e)
120. To improve its efficiency (a)/ all income tax officers (b)/ will be provided with (c)/ laptops by next year. (d)/ No error (e)
121. He was not a (a)/ good manager because (b)/ he did not know (c)/ what to react in a crisis. (d)/ No error (e)
122. Ram will be suspended (a)/ because he opened an account (b)/ without obtaining none (c)/ of the necessary documents. (d)/ No error (e)
123. Mr. Bajaj has resigned (a)/ from the post of Director (b)/ which he holds (c)/ for over ten years. (d)/ No error (e)
124. Inspite of living (a)/ in Kerala for two years (b)/ he yet does (c)/ not speak Malayalam. (d)/ No error (e)
125. Mr. Patil approached (a)/ the bank for (b)/ a loan to finance (c)/ his son college education. (d)/ No error (e)

DIRECTIONS (Qs. 126-130) : 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) He then hid nearby to watch and see who would remove it.
 (B) He saw a purse full of gold lying in the middle of the road. It was the King's reward to the person who did something about the problem.
 (C) The king was tired of his subjects only complaining but doing nothing to solve their problems.
 (D) A youth on his way to market saw the stone, put down his produce and rolled the stone to the side of the road.
 (E) Many people passed by but dodged their duty of moving the stone instead blaming the king for not keeping the highways clear.
 (F) One day he placed a heavy stone in the middle of the road.
126. Which of the following is the **SECOND** sentence after rearrangement ?
 (a) B (b) C
 (c) D (d) E
 (e) F
127. Which of the following is the **SIXTH (Last)** sentence after rearrangement ?
 (a) A (b) B
 (c) C (d) D
 (e) E
128. Which of the following is the **FIRST** sentence after rearrangement ?
 (a) A (b) B
 (c) C (d) D
 (e) F
129. Which of the following is the **THIRD** sentence after rearrangement ?
 (a) A (b) B
 (c) C (d) D
 (e) E

130. Which of the following is the **FIFTH** sentence after rearrangement ?
- (a) B (b) C
(c) D (d) E
(e) F

DIRECTIONS (Qs. 131-135) : Which of the phrases (a), (b), (c) and (d) given below should replace the phrase given in bold in the following sentence to make the sentence grammatically correct ? If the sentence is correct as it is and no correction is required, mark (e) as the answer.

131. They didn't pay any heed to their superior's instructions :
I did neither.
- (a) I either did (b) Either I did not
(c) Neither didn't I (d) Nor did I
(e) No correction required
132. Every poet **gives voice to** his anger and his compassion through his poems.
- (a) voiced to give (b) gives voice for
(c) gave voice against (d) voiced at giving
(e) No correction required
133. The police nabbed a notorious criminal who **had been terrorising builders and extorted** money from them for the past two years.
- (a) was terrorising builders and extorted
(b) had not been terrorised builders and extorted
(c) had been terrorising builders and extorting
(d) had terrorised builders and extorted
(e) No correction required
134. Managers frequently encounter situations where they need **to help others solved** problems.
- (a) to helping others solved
(b) help others solved
(c) to help others solve
(d) help others solving
(e) No correction required
135. From among various alternatives we should choose the one which **is viable and consumes less** time and energy.
- (a) is viable and consuming lesser
(b) is viability and consumes less
(c) being viable and consumes less
(d) has viable and consuming less
(e) No correction required

DIRECTIONS (Qs. 136-140) : In each of the following sentences there are two blank spaces. Below each sentence there are five pair of words denoted by numbers 1, 2, 3, 4 and 5. Find out which pair of words can be filled up in the blanks in the sentence in the same sequence to make the sentence meaningfully complete.

136. He objected to the proposal because it was founded on a ____ principle and also was ____ at time.
- (a) faulty, desirable
(b) imerative, reasonable
(c) wrong, inconvenient
(d) sound, acceptable
(e) unconforming, deplorable

137. The criterion for ____ a player should be his recent performance; but unfortunately, the journalists are ____ to be carried away by earlier successes.
- (a) condemning, satisfying
(b) judging, prone
(c) revealing, reluctant
(d) eager, acclaiming
(e) criticising, clean
138. For the last half century he ____ himself to public affairs ____ taking a holiday.
- (a) by, committed (b) after, offered
(c) devoted, without (d) sacrificed, after
(e) prepared, before
139. You will see signs of ____ everywhere, which speak well for the ____ of these people.
- (a) decoration, senses
(b) clear, debris
(c) beauty, careful
(d) industry, prosperity
(e) repairs, extravaganza
140. The police arrested Ramesh on a ____ of theft but for lack of evidence ____ him.
- (a) crime, imprisoned
(b) punished, complaint
(c) left, condition
(d) tip, absconding
(e) charge, released

DIRECTIONS (Qs. 141-150) : In 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 fits the blank appropriately: Find out the appropriate word in each case.

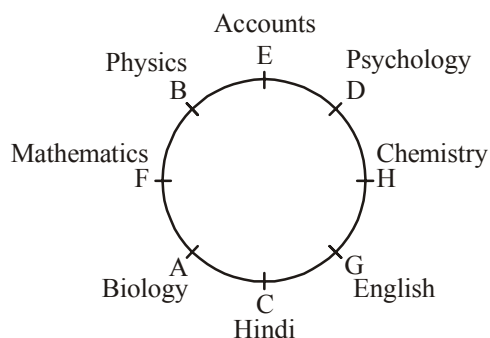
The advance of science brings (141) necessary changes in our general ideas. The advance of astronomical science, for example, (142) entirely changed our views regarding man's place in Nature. Before Copernicus it was universally believed that the Universe was quite a small affair; that the Earth was its centre: that the Sun and the Moon (143) to give light to our world, and that they and the stars were travelling round the Earth. (144) then there have been many changes in our ideas, until now we know that the Earth travels round the Sun, that the Sun is but one of the millions of stars which are scattered in space at distances of millions and millions of miles ; that all the stars we see (145) only a single star family, and that there are millions of other similar star-families swimming in space at almost inconceivable distances, but visible through our telescopes as spiral nebulae. We can no longer think of man or his home as in any way central, or as being anything but very insignificant compared with the Universe as a whole. The advance of biological science has an equally great effect. Before the 19th century, it used to be (146) that man was created only a few thousand years ago in the same form that he is today, (147) that all other animals and plants existed for his benefit. The discoveries of geology proved the world to be enormously old, and Darwin and his followers showed that man had (148) from an animal ancestor. Today we know that life has existed on earth for

over a thousand million years; during that time it had slowly changed or evolved into many different forms; that man evolved out of an ape-like creature and came on the scene very late in the world's history; that he has changed in various ways during his evolution; and that there is no reason **(149)** further change and evolution should not take place. Furthermore, the rest of life does not exist to serve man; man simply happens to be the **(150)** successful living creature and has been able to use many plants and animals for his own ends.

- | | | | |
|----------------|--------------|--------------------|---------------|
| 141. (a) about | (b) of | 145. (a) make up | (b) making up |
| (c) with | (d) from | (c) made of | (d) forming |
| (e) for | | (e) formed | |
| 142. (a) have | (b) has | 146. (a) supposing | (b) supposed |
| (c) is | (d) are | (c) developing | (d) knowing |
| (e) has been | | (e) suppose | |
| 143. (a) exist | (b) exists | 147. (a) and | (b) if |
| (c) existed | (d) existing | (c) only | (d) for |
| (e) will | | (e) all | |
| 144. (a) About | (b) Till | 148. (a) evolve | (b) evolved |
| (c) Before | (d) Since | (c) developing | (d) made |
| (e) By | | (e) formed | |
| | | 149. (a) that | (b) what |
| | | (c) why | (d) when |
| | | (e) how | |
| | | 150. (a) much | (b) more |
| | | (c) most | (d) better |
| | | (e) worst | |

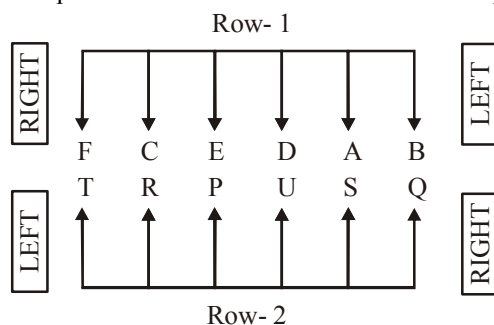
HINTS & SOLUTIONS

1-6 :

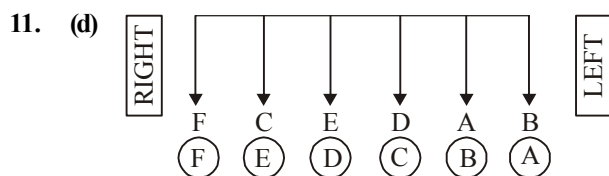


1. (b) H teaches Chemistry.
2. (d) D teaches Psychology. B is second to the right of D.
3. (a) A teaches Biology and B teaches Physics. F, who teaches Mathematics is exactly between A and B.
4. (c) E teaches Accounts.
5. (b) The person who teaches Hindi is C and C is an immediate neighbour of A and G. Immediate neighbours of F are A and B. A teaches Biology. E is sitting exactly between B and D, who teaches Accounts. H teaches Chemistry and H is second to the left of E.
6. (e) Except in the pair BA, in all others the first person is second to the right of the second person. In BA, the first person is second to the left of the second person.

7-11 :

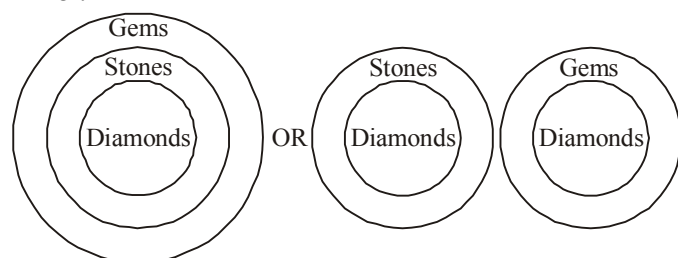


7. (c) F and B are sitting at the extreme ends of Row-1.
8. (a) S is third to the right of R.
9. (e) Except in EU, in all others one person is just opposite to the other person.
10. (b) A is second to the left of E.



So position of F remains unchanged.

12-13 :



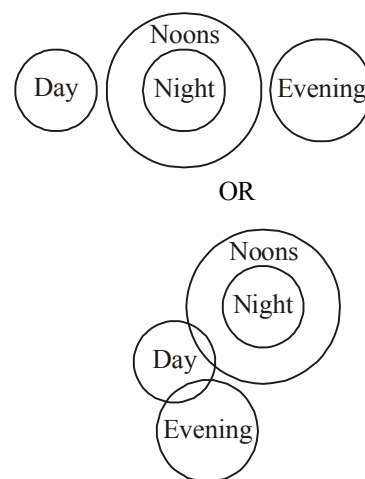
12. (b) Conclusions :

- I. False
 - II. True
- So only conclusion II follows.

13. (a) Conclusions :

- I. True, Third premise
 - II. False
- So only conclusion I follows.

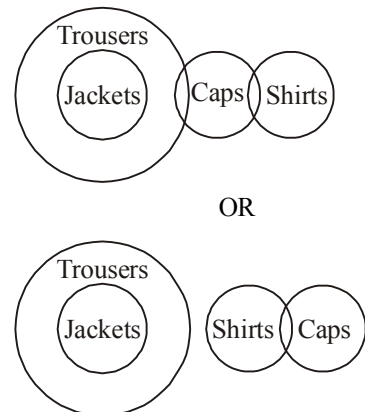
14. (b)



Conclusions :

- I. False
 - II. True
- So only conclusion II follows.

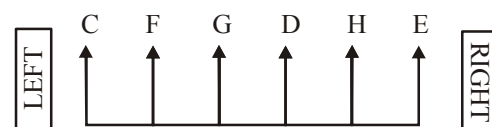
15. (d)



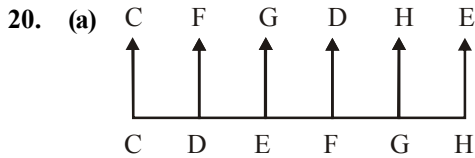
Conclusions :

- I. False
 - II. False
- So none of the conclusion follows.

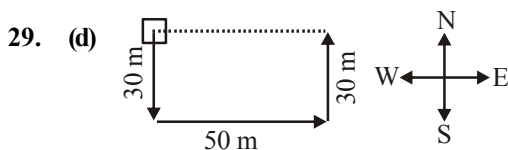
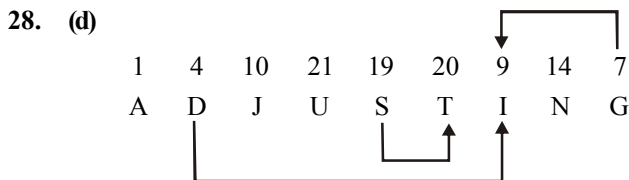
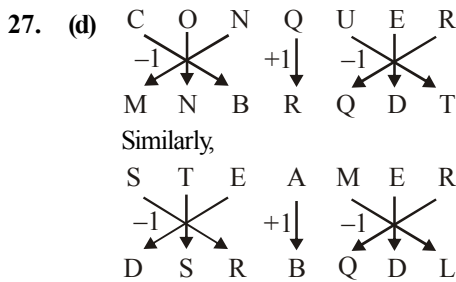
16-20 :



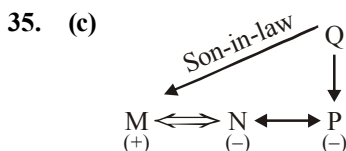
16. (c) G is third to the left of E.
17. (b) C and E are standing at the extreme ends of the line.
18. (c) G is standing second to the right of C.
19. (b) Except in GE, in all others there is only one person between the two.



21. (e) All 3 courses of action should be followed because sending relief team to the effected area, pumping out water from the road and advising general public to stay indoor all would help to tackle the problem.
22. (e) I and II course of action should be followed because course of action III opposes the need for essential commodities.
23. (b) Only course of action II can be persued because suspending principal is not a solution of any problem and suspending midday meal would creat further problems.
24. (d) All three courses of action can be followed to overcome malaria problem.
25. (e) Only II course of action can be followed because school management cannot terminate all teachers and cannot approach the government for guidelines because management has to from its own guidelines.
26. (a) Government decision to construct super highway shows that Government has sufficient resources to construct it.



30. (e) All 4 are possible effects because heavy rainfall after cyclonic storm is obvious and next 3 statements are the natural after affects of cyclonic storm.
31. (a) Option (a) is the only cause because unisafe structure would cause deserted look in the temple.
32. (e) Obviously option (e) is an assumption.
33. (b) b w [x] y z a, d s t u v [c], [f] o p q r e
34. (c) Statement (3) would weaken the government's argument because it negates the importance of computerisation of bank branches.

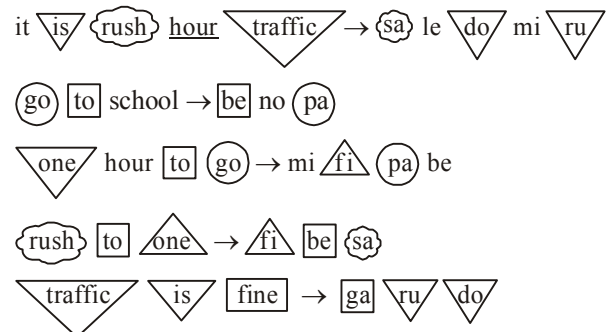


36-40 :

CANDIDATE	CRITERIA						Ans
	(i)	(ii) or B	(iii)	(iv) or A	(v)		
Suresh	✓	✓	-	✓	✓	-	2
Sudha	✓	-	✓	✓	✓	-	4
Divya	✗	✓	-	✓	✓	-	1
Navin	✓	✓	-	✓	✓	-	2
Varun	✓	✓	-	✓	-	✓	5

36. (b) Suresh Mehta satisfies all the conditions (i), (ii), (iii), (iv) and (v). Therefore, he can be selected.
37. (d) Sudha Gopalan satisfies the conditions (i), (B), (iii), (iv) and (v). Therefore, her case would be referred to Vice-president -Marketing.
38. (a) Divya Kohli does not satisfy condition (i). Therefore, she cannot be selected.
39. (b) Navin Marathe satisfies all the conditions (i), (ii), (iii), (iv) and (v). Therefore, he can be selected.
40. (e) Varun Malhotra satisfies the conditions (i), (ii), (iii), (A) and (v). Therefore, his case should be referred to GM-Marketing.

41-45 :



41. (c) school ⇒ no; hour ⇒ mi; go ⇒ pa; fine = ga.
42. (d) mi ⇒ hour; fi ⇒ one; le ⇒ it,
43. (a) sa ⇒ rush
44. (e) traffic is ⇒ ru do; one ⇒ fi; hour ⇒ mi
The code for 'for' may be 'ye' or 'so'.
45. (b) do ⇒ is or traffic

46-50 :

Days	Flight
Monday	Emirates
Tuesday	Jet Airways
Wednesday	Delta
Thursday	British Airways
Friday	Air India
Saturday	Quantas
Sunday	Lufthansa

46. (c) Jet Airways flies on Tuesday.
47. (d) Three flights fly between Lufthansa and Delta

48. (a) Air India flies on Friday
 49. (e) Qantas will fly on Friday
 50. (d) There are two flights between Emirates and British Airways.

51. (e) The pattern is :

$$\begin{aligned} 2 \times 3 &= 6 \\ 6 \times 2.5 &= 15 \\ 15 \times 2 &= 30 \\ 30 \times 1.5 &= 45 \\ 45 \times 1 &= 45 \neq \boxed{43.5} \end{aligned}$$

$$45 \times 0.5 = 22.5$$

So 43.5 is the wrong term.

52. (c) The pattern is :

$$950 - 661 = 289 = 17^2$$

$$661 - 436 = 225 = 15^2$$

$$436 - \boxed{269} = 167 \neq 13^2$$

$$\therefore 436 - 267 = 169 = 13^2$$

$$267 - 146 = 121 = 11^2$$

$$146 - 65 = 81 = 9^2$$

So 269 is the wrong term.

53. (e) The pattern is :

$$6.5 + 5.3 = 11.8$$

$$11.8 + 2 \times 5.3 = 11.8 + 10.6 = 22.4$$

$$22.4 + 3 \times 5.3 = 22.4 + 15.9 = 38.3$$

$$38.3 + 4 \times 5.3 = 38.3 + 21.2 = 59.5$$

$$59.5 + 5 \times 5.3 = 59.5 + 26.5 = 86$$

$$\neq \boxed{87.3}$$

$$86 + 6 \times 5.3 = 86 + 31.8 = 117.8$$

54. (e) The pattern is :

$$1 \times 3 - 1 = 2$$

$$2 \times 3 - 2 = 4$$

$$4 \times 3 - 3 = 9$$

$$9 \times 3 - 4 = 23$$

$$23 \times 3 - 5 = 69 - 5 = 64 \neq \boxed{69}$$

$$64 \times 3 - 6 = 192 - 6 = 186$$

55. (e) The pattern is :

$$250 - 11 = 239$$

$$239 - (11 \times 2 + 1) = 239 - 23 = 216$$

$$216 - (11 \times 3 + 2) = 216 - 35 = 181$$

$$181 - (11 \times 4 + 3) = 181 - 47 = 134 \neq \boxed{136}$$

$$134 - (11 \times 5 + 4) = 134 - 59 = 75$$

$$75 - (11 \times 6 + 5) = 75 - 71 = 4$$

56. (b) S.I. = $\frac{\text{Principal} \times \text{Time} \times \text{Rate}}{100}$

$$\begin{aligned} \therefore \text{Difference} &= \frac{4500 \times 2 \times 12}{100} - \frac{5600 \times 2 \times 9}{100} \\ &= 1080 - 1008 = ₹ 72 \end{aligned}$$

57. (a) First number = x
 Second number = y

$$\therefore x \times \frac{50}{100} = y \times \frac{3}{4}$$

$$\Rightarrow \frac{x}{2} = y \times \frac{3}{4}$$

$$\Rightarrow \frac{x}{y} = \frac{3}{4} \times 2 = \frac{3}{2}$$

58. (c) Speed of train = $\frac{\text{Length of train}}{\text{Time taken in crossing}}$

$$= \frac{320}{16} = 20 \text{ m/sec} = 20 \times \frac{18}{5} = 72 \text{ kmph}$$

$$\text{Total period of stoppage} = 5 \times 18$$

$$= 90 \text{ minutes} = \frac{3}{2} \text{ hours}$$

Total time taken in covering a distance of 576 km.

$$= \left(\frac{576}{72} + \frac{3}{2} \right) \text{ hours} = 8 + \frac{3}{2} = 9 \frac{1}{2} \text{ hours}$$

59. (a) From statement I.

$$\text{Difference} = \frac{P \times R^2}{10000}$$

$$\Rightarrow 360 = \frac{P \times 12 \times 12}{10000}$$

$$\Rightarrow P = \frac{360 \times 10000}{12 \times 12} = ₹ 25000$$

From statement II,

$$\text{Interest} = 2P - P = ₹ P = \text{Principal}$$

$$\text{Principal} = \frac{\text{S.I.} \times 100}{\text{Time} \times \text{Rate}} = \frac{P \times 100}{10 \times 10} = P$$

From statement III,

$$\text{C.I.} = P \left[\left(1 + \frac{\text{Rate}}{100} \right)^{\text{Time}} - 1 \right]$$

$$\Rightarrow 6360 = P \left[\left(1 + \frac{12}{100} \right)^2 - 1 \right]$$

$$\Rightarrow 6360 = P \left[\left(\frac{28}{25} \right)^2 - 1 \right]$$

$$\Rightarrow 6360 = P \left[\left(\frac{784 - 625}{625} \right) \right] = \frac{P \times 159}{625}$$

$$\Rightarrow P = \frac{6360 \times 625}{159} = ₹ 25000$$

So information given in statement I or III is sufficient to answer the question

Note : You need not calculate during exam. You are required to examine whether requirements of a formula are satisfied or not.

60. (b) From statement I,

If Length = x metre and breadth = y metre, then

$$y = \frac{1 \times 2}{4} (x + y)$$

$$\Rightarrow 2y = x + y \Rightarrow y = x$$

$$\therefore x^2 = 144$$

$$\Rightarrow x = \sqrt{144} = 12 \text{ metre}$$

$$\text{Area of field} = (16)^2 - (12)^2 = 256 - 144 = 112 \text{ sq. metre}$$

From statements II and III,

$$\text{Length} = 3x \text{ metre}$$

$$\text{Breadth} = 2x \text{ metre}$$

$$\therefore 3x \times 2x = 216$$

$$\Rightarrow x^2 = \frac{216}{3 \times 2} = 36$$

$$\Rightarrow x = 6$$

$\therefore$ Length = 18 metre, Breadth = 12 metre

Area of the field with boundary

$$= (18 + 2 \times 2)(12 + 2 \times 2)$$

$$= 22 \times 16 = 352 \text{ sq. metre}$$

$$\therefore \text{Area of boundary} = 352 - 216 = 136 \text{ sq. m.}$$

61. (d) From statement I,
 $H + G + C = 65 \times 3 = 195 \dots(i)$

From statement II,

$$G = H + 6$$

From statement III,

$$G - C = C - H$$

$$\Rightarrow 2C = G + H$$

$$\Rightarrow 2C = H + 6 + H = 2H + 6$$

$$\Rightarrow C = H + 3$$

$$\therefore H + G + C = 195$$

$$\Rightarrow H + H + 6 + H + 3 = 195$$

$$\Rightarrow 3H = 195 - 9 = 186$$

$$\Rightarrow H = \frac{186}{3} = 62$$

62. (a) From statements I and II,
 If the length of the train be x metre, then

$$\text{Speed of train} = \frac{x}{15} = \frac{x+250}{27}$$

$$\Rightarrow \frac{x}{5} = \frac{x+250}{9}$$

$$\Rightarrow 9x = 5x + 1250$$

$$\Rightarrow 4x = 1250$$

$$\Rightarrow x = \frac{1250}{4} = 312.5 \text{ m/sec.}$$

63. (d) From statements I and II,
 C.P. of article = $252 - 52 = ₹ 200$
 Discount = $280 - 252 = ₹ 28$
 Marked price = ₹ 280

$$\therefore 280 \times \frac{x}{100} = 28$$

$$\Rightarrow x = 10\%$$

Statements I and III will also give same result.

64. (a) Passengers of airline A
 $= (15 + 10 + 20 + 10 + 15 + 10)$ thousands
 $= 80$ thousands

Passengers of airline C

$$= (15 + 15 + 15 + 10 + 20 + 10) \text{ thousands}$$

$$= 85 \text{ thousands}$$

$$\text{Difference} = 85 - 80 = 5 \text{ thousands}$$

65. (b) Passengers of airline C who travelled to Delhi and

Kolkata = 30 thousands

$$\text{Required percentage} = \frac{30}{85} \times 100 \approx 35$$

66. (c) Required ratio = $(15 + 10) : (15 + 10) = 25 : 25 = 1 : 1$

67. (d) Passengers of airline A who travelled to Chennai
 First quarter $\Rightarrow 10000$

$$\text{Second quarter} \Rightarrow 10000 \times \frac{150}{100} = 15000$$

$$\text{Third quarter} \Rightarrow \frac{15000 \times 100}{120} = 12500$$

$$= \frac{12500 - 10000}{10000} \times 100 = \frac{25000}{10000} = 25$$

68. (e) Passengers of airline B who travelled to Bangaluru.
 First quarter $\Rightarrow 10000$

$$\text{Second quarter} \Rightarrow \frac{10000 \times 130}{100} = 13000$$

Passengers of airline B who travelled to Kolkata

First quarter $\Rightarrow 10000$

Second quarter $\Rightarrow 14000$

$$\therefore \text{Required percentage} = \frac{20000}{27000} \times 100 \approx 74$$

$$69. (a) \frac{(\frac{4}{?})^5}{36} = \frac{9}{(\frac{1}{?})^5}$$

$$\Rightarrow (\frac{4}{?})^5 \times (\frac{1}{?})^5 = 9 \times 36$$

$$\Rightarrow (\frac{4}{?})^{\frac{4}{5} + \frac{1}{5}} = 324$$

$$\Rightarrow ? = 324$$

70. (b) I. $4x^2 - 32x + 63 = 0$
 $\Rightarrow 4x^2 - 14x - 18x + 63 = 0$
 $\Rightarrow 2x(2x - 7) - 9(2x - 7) = 0$
 $\Rightarrow (2x - 7)(2x - 9) = 0$

$$\Rightarrow x = \frac{7}{2} \text{ or } \frac{9}{2}$$

- II. $2y^2 - 11y + 15 = 0$
 $\Rightarrow 2y^2 - 6y - 5y + 15 = 0$
 $\Rightarrow 2y(y - 3) - 5(y - 3) = 0$
 $\Rightarrow (y - 3)(2y - 5) = 0$

$$\Rightarrow y = 3 \text{ or } \frac{5}{2}$$

Clearly, $x > y$

71. (b) I. $x^3 = (216)^{\frac{1}{3} \times 3} = 216$
 $\Rightarrow x = \sqrt[3]{216} = 6$

II. $6y^2 = 150$

$$\Rightarrow y^2 = \frac{150}{6} = 25$$

$$\Rightarrow y = \sqrt{25} = \pm 5$$

Clearly, $x > y$

72. (a) I. $12x^2 + 17x + 6 = 0$
 $\Rightarrow 12x^2 + 9x + 8x + 6 = 0$
 $\Rightarrow 3x(4x + 3) + 2(4x + 3) = 0$
 $\Rightarrow (4x + 3)(3x + 2) = 0$

$$\Rightarrow x = -\frac{3}{4} \text{ or } -\frac{2}{3}$$

- II. $6y^2 + 5y + 1 = 0$
 $\Rightarrow 6y^2 + 2y + 3y + 1 = 0$
 $\Rightarrow 2y(3y + 1) + 1(3y + 1) = 0$
 $\Rightarrow (3y + 1)(2y + 1) = 0$

$$\Rightarrow y = -\frac{1}{3} \text{ or } -\frac{1}{2}$$

Clearly, $x < y$

73. (c) I. $20x^2 + 9x + 1 = 0$
 $\Rightarrow 20x^2 + 5x + 4x + 1 = 0$
 $\Rightarrow 5x(4x + 1) + 1(4x + 1) = 0$
 $\Rightarrow (4x + 1)(5x + 1) = 0$
 $\Rightarrow x = -\frac{1}{4}$ or $-\frac{1}{5}$
- II. $30y^2 + 11y + 1 = 0$
 $\Rightarrow 30y^2 + 6y + 5y + 1 = 0$
 $\Rightarrow 6y(5y + 1) + 1(5y + 1) = 0$
 $\Rightarrow (5y + 1)(6y + 1) = 0$
 $\Rightarrow y = -\frac{1}{5}$ or $-\frac{1}{6}$
- Clearly, $x \leq y$
74. (d) I. $x^2 + 17x + 72 = 0$
 $\Rightarrow x^2 + 8x + 9x + 72 = 0$
 $\Rightarrow x(x + 8) + 9(x + 8) = 0$
 $\Rightarrow (x + 9)(x + 8) = 0$
 $\Rightarrow x = -9$ or -8
- II. $y^2 + 19y + 90 = 0$
 $\Rightarrow y^2 + 10y + 9y + 90 = 0$
 $\Rightarrow y(y + 10) + 9(y + 10) = 0$
 $\Rightarrow (y + 9)(y + 10) = 0$
 $\Rightarrow y = -9$ or -10
- Clearly, $x \geq y$
75. (b) Total height of 16 students = 16×142 cm = 2272 cm
Let height of teacher be x .
 $\frac{2272 + x}{17} = 143$
 $2272 + x = 2431$
 $x = 2431 - 2272 = 159$
Height of teacher is 159 cm
76. (a) Let present ages of Mahesh and Ajay is $3x$ and $2x$ respectively.
According to question,
 $\frac{3x + 8}{2x + 8} = \frac{11}{8}$
 $\Rightarrow 24x + 64 = 22x + 88$
 $\Rightarrow 2x = 24$
 $\Rightarrow x = 12$
Present age of Ajay is $2 \times 12 = 24$ years
- Present age of Mahesh's son = $\frac{24}{2} = 12$ years
77. (b) Part of tank filled by all three pipes in 1 minute
 $= \frac{1}{30} + \frac{1}{45} - \frac{1}{60} = \frac{6 + 4 - 3}{180} = \frac{7}{180}$
 $\therefore$ Time taken = $\frac{180}{7}$ minutes
 $= \frac{180}{7 \times 60} = \frac{3}{7}$ hour
78. (c) C.P. of article = $5220 \times \frac{100}{(100 - 42)}$
 $= \frac{5220 \times 100}{58} = ₹ 9000$
 $\therefore$ Required S.P. = $\frac{9000 \times 142}{100} = ₹ 12780$

79. (d) Share of profit = Geeta : Shweta : Sita
 $= 4200 : 8400 : 5400 = 7 : 14 : 9$
Sita's share = $\frac{9}{(7 + 14 + 9)} \times 24000$
 $= \frac{9}{30} \times 24000 = ₹ 7200$
Remaining amount after investing 32%
 $= 7200 \times (100 - 32)\%$
 $= \frac{7200 \times 68}{100} = ₹ 4896$
80. (a) Percentage of females in city C = $100 - 52 - 13 = 35$
Adult males $\Rightarrow 71200000 \times \frac{52}{100} = 37024000$
Adult females $\Rightarrow \frac{71200000 \times 35}{100} = 24920000$
Percentage of females in city D = 40
Adult males $\Rightarrow \frac{93500000 \times 49}{100} = 45815000$
Adult females $\Rightarrow \frac{93500000 \times 40}{100} = 37400000$
Difference = $37024000 + 45815000 - 24920000 - 37400000$
 $= 20519000$
Required percentage = $\frac{20519000}{62320000} \times 100 \approx 33$
81. (b) Required percentage = $\frac{16}{41} \times 100 \approx 39$
82. (a) Females :
City A $\Rightarrow \frac{68300000 \times 43}{100} = 29369000$
City D $\Rightarrow 37400000$
Difference = $37400000 - 29369000 = 8031000$
83. (b) Adult population :
City B $\Rightarrow \frac{42500000 \times 86}{100} = 36550000$
City F $\Rightarrow \frac{81200000 \times 84}{100} = 68208000$
Total population = $36550000 + 68208000 = 104758000$
84. (a) Required ratio = $93500000 : 54500000$
 $= 935 : 545 = 187 : 109$
85. (a) $? \approx \frac{4 \times 3}{12} \times 952 - 129$
 $\approx 952 - 129 \approx 823$
86. (b) $? \approx \frac{8450 \times 105}{100} - 5006 \times \frac{3}{700} + 10$
 $\approx 8872 - 21 + 10 \approx 8861$
87. (b) $10^3 \times 100^3 + 10^9 = 10^7 + 10^7$
 $\Rightarrow 10^9 + 10^9 = 10^7 + 10^7 \Rightarrow ? = 9$

88. (d) $? \approx 21 + 3.7 \times 3 \approx 21 + 11.1 \approx 32.1$

89. (a) $23 + 9 - ? = 23$
 $\Rightarrow ? = 9$

90. (b) Females in Gujarat = $15000000 \times \frac{17}{100} \times \frac{6}{15} = 1020000$

Females in Rajasthan = $15000000 \times \frac{18}{100} \times \frac{7}{8} = 2362500$

Total females = $1020000 + 2362500 = 3382500$

91. (a) Required ratio = $8 : 16 = 1 : 2$

92. (c) Required percentage = $\frac{18-16}{16} \times 100 = 12.5\%$

93. (c) Males in Karnataka = $15000000 \times \frac{19}{100} \times \frac{7}{15} = 1330000$

Males in Goa = $15000000 \times \frac{8}{100} \times \frac{5}{12} = 500000$

Average = $\frac{1330000 + 500000}{2} = 915000$

94. (d) Percentage decrease = $\frac{16-8}{16} \times 100 = 50\%$

95 – 97 :

Boys $\Rightarrow 175 \times \frac{3}{7} = 75$

Girls $\Rightarrow 175 \times \frac{4}{7} = 100$

Boys who read only Hindi = $\frac{75 \times 40}{100} = 30$

Students who read only Sanskrit = $\frac{175 \times 44}{100} = 77$

Girls reading both Sanskrit and Hindi = $\frac{100 \times 32}{100} = 32$

Boys who read Sanskrit only = $\frac{2}{3} \times 45 = 30$

Boys who read the combo subjects
 $= 75 - (30 + 30) = 15$

Girls who read Sanskrit only = $77 - 30 = 47$

Girls who read only Hindi = $100 - 32 - 47 = 21$

95. (b) Boys who read both subjects (combo) = 15

96. (a) Required ratio = $30 : 32 = 15 : 16$

97. (b) Girls who read only Sanskrit = 47

98. (a) The word RUMOUR consists of 6 letters in which each of R and U comes twice.

$$\begin{aligned} \therefore \text{Number of arrangements} &= \frac{6!}{2!2!} \\ &= \frac{6 \times 5 \times 4 \times 3 \times 2 \times 1}{2 \times 2} \\ &= 180 \end{aligned}$$

99. (a) Total possible outcomes
 $= \text{Selection of 2 balls out of } (9 + 7 + 4 = 20) \text{ balls}$
 $= {}^{20}C_2 = \frac{20 \times 19}{1 \times 2} = 190$

Favourable outcomes = Selection of 2 balls out of 9 red balls

$$= {}^9C_2 = \frac{9 \times 8}{1 \times 2} = 36$$

$$\therefore \text{Required probability} = \frac{36}{190} = \frac{18}{95}$$

100. (b) Total possible outcomes = 190
Favourable outcomes = Selection of 1 ball out of 9 red balls and 1 ball from 7 white balls
 $= {}^9C_1 \times {}^7C_1 = 9 \times 7 = 63$

$$\therefore \text{Required probability} = \frac{63}{190}$$

101. (c) It is mentioned in the first paragraph.

102. (a) It is mentioned in the first paragraph.

103. (b) India has become the fourth largest economy as mentioned in the second paragraph.

104. (a) It is mentioned in the last paragraph.

105. (a) It is mentioned in the third paragraph.

106. (b) The passage talks about the status of economic development, poverty and unemployment as issues.

107. (c) It is mentioned in the second last paragraph where it says that the poor are not a homogeneous population.

108. (b) It is mentioned in the fourth paragraph.

109. (d) 110. (e) 111. (c) 112. (d)

113. (b) 114. (e) 115. (a) 116. (a)

117. (a) The Reserve Bank of India is.

118. (b) Of qualified staff.

119. (b) More than forty percent.

120. (a) To improve their efficiency.

121. (d) How to react in a crisis.

122. (c) Without obtaining any.

123. (c) Which he held.

124. (c)

125. (d) His son's college education.

126. (e) 127. (b) 128. (c) 129. (a)

130. (c) 131. (d) 132. (e) 133. (a)

134. (c) 135. (e) 136. (b) 137. (a)

138. (c) 139. (d) 140. (e) 141. (a)

142. (b) 143. (c) 144. (d) 145. (a)

146. (b) 147. (a) 148. (b) 149. (c)

150. (e)