

Held on : 19-10-2014

IBPS Common Written Exam (PO/MT-IV)

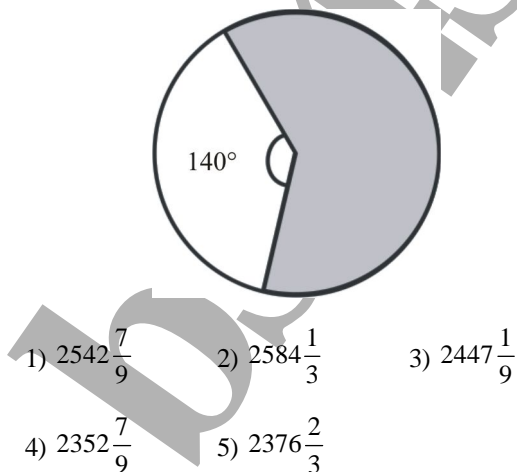
(Based on Memory)

Test-I

Quantitative Aptitude

- A bakery bakes cake with the expectation that it will earn a profit of 40% by selling each cake at marked price. But during the delivery to showroom 16% of the cakes were completely damaged and hence could not be sold. 24% of the cakes were slightly damaged and hence could be sold at 80% of the cost price. The remaining 60% of the cakes were sold at marked price. What is the percentage profit in the whole consignment?
1) 3.2 2) 2.4 3) 2.8 4) 4.2 5) 3.6
 - A professional institute's total expenditure on students for a particular course is partly fixed and partly varies linearly with the number of students. The average expense per student is ₹ 615 when there are 24 students and ₹ 465 when there are 40 students. What is the average expense when there are 60 students?
1) ₹ 370 2) ₹ 450 3) ₹ 350 4) ₹ 420 5) ₹ 390
 - The ratio of the present ages of A and B is 7 : 9. Six years ago the ratio of $\frac{1}{3}$ of A's age at that time and $\frac{1}{3}$ of B's age at that time was 1 : 2. What will be the ratio of A's to B's age 6 years from now?
1) 4 : 5 2) 14 : 15 3) 6 : 7
4) 18 : 25 5) 22 : 25
 - A, B and C have to type 506 pages to finish an assignment. A can type a page in 12 minutes, B in 15 minutes and C in 24 minutes. If they divide the task into three parts so that all three of them spend equal amount of time in typing, what is the number of pages that B should type?
1) 172 2) 176 3) 154 4) 168 5) 164
- Directions (Q. 5-9): The question consists of a question and two statements I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and choose the appropriate option.**
- What is the base of a triangle PQR with PQ as base?
I. Height and base of the triangle are in the ratio of 3 : 4.
II. The area of the triangle is 48 cm², perimeter 36 cm and height $\frac{2}{3}$ of the perimeter.
1) The data in statement **II alone** are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.
2) The data **either** in statement I alone or in statement II alone are sufficient to answer the question.
3) The data in statement **I alone** are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.
4) The data in **both** statements I and II together are necessary to answer the question.
5) The data even in both statements I and II together are **not** sufficient to answer the question.
 - What is the speed of the train?
I. A train crosses another train coming from opposite direction at the speed of 45 kmph in 20 seconds.
II. The train crosses another train running in the same direction at the speed of 42 kmph in 1 minute 18 seconds.
1) The data **either** in statement I alone or in statement II alone are sufficient to answer the question.
2) The data in statement **I alone** are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.
3) The data even in both statements I and II together are **not** sufficient to answer the question.
4) The data in **both** statements I and II together are necessary to answer the question.
5) The data in statement **II alone** are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.
 - What is the rate of interest pcpa?
I. An amount invested on simple interest becomes four times in 24 years.
II. The difference between compound interest and simple interest for two years on an amount of ₹ 10000 at that rate is ₹ 156.25.
1) The data in statement **II alone** are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.
2) The data in statement **I alone** are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.
3) The data in **both** statements I and II together are necessary to answer the question.
4) The data even in both statements I and II together are **not** sufficient to answer the question.
5) The data **either** in statement I alone or in statement II alone are sufficient to answer the question.

8. What is the total strength of institute X?
- I.** Out of the total strength of Institute X, 35% are females and rest are males. The number of females in Institute X is equal to the number of males in Institute Y.
- II.** Out of the total strength of Institute Y, the no. of males is 560, which is 28% of the total strength.
- 1) The data **either** in statement I alone or in statement II alone are sufficient to answer the question.
 - 2) The data in statement **II alone** are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.
 - 3) The data even in both statements I and II together are **not** sufficient to answer the question.
 - 4) The data in statement **I alone** are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.
 - 5) The data in **both** statements I and II together are necessary to answer the question.
9. What is the cost of fencing a rectangular plot along all four sides @ ` 450 per metre?
- I.** The area of the plot is 1458 m², which is 54 times the numerical value of its breadth.
- II.** The length of the plot is 200% of its breadth and the breadth is 50% of its length.
- 1) The data even in both statements I and II together are **not** sufficient to answer the question.
 - 2) The data in statement **II alone** are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.
 - 3) The data in statement **I alone** are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.
 - 4) The data **either** in statement I alone or in statement II alone are sufficient to answer the question.
 - 5) The data in **both** statements I and II together are necessary to answer the question.
10. In the figure given below, the perimeter of the circle is 220 cm. What is the area of the shaded portion in cm²?



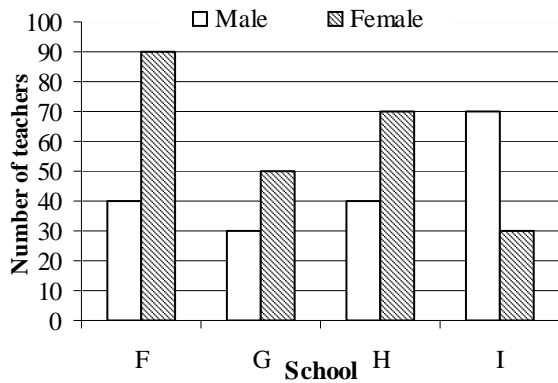
Directions (Q. 11-15): Study the table to answer the given questions.

City	Percentage of people (male and female) who watch the TV Series out of the total population of the city								
	Total population of the city	Big Bang Theory		Arrow		Breaking Bad		Mentalist	
		Male	Female	Male	Female	Male	Female	Male	Female
P	40000	12	14	22	18	18	20	12	10
Q	20000	10	20	20	16	14	10	15	30
R	50000	18	12	10	22	16	12	16	22
S	30000	16	20	10	20	12	30	18	12
T	50000	22	30	12	14	20	12	15	20

11. What is the difference between the total number of people living in City R, Q and T together who do not watch Arrow and the total number of people living in these three cities together who watch Arrow?
1) 47200 2) 45300 3) 47400 4) 47600 5) 45600
12. What is the average number of males who watch Big Bang Theory in all the cities together?
1) 6320 2) 6380 3) 6340 4) 6350 5) 6360
13. The ratio of the total number of males to the total number of females in City P is 5 : 3. What per cent of the female population watches Breaking Bad in City P?
1) $55\frac{1}{3}$ 2) $55\frac{2}{3}$ 3) $58\frac{1}{3}$
4) $53\frac{1}{3}$ 5) $53\frac{2}{3}$
14. The total population (males and females) of City R watching Mentalist is what per cent more than the total population (male and female) of City T watching the same TV Series?
1) $8\frac{3}{7}$ 2) $8\frac{5}{7}$ 3) $8\frac{4}{7}$
4) $7\frac{3}{7}$ 5) $7\frac{4}{7}$
15. What is the ratio of the number of females who watch Breaking Bad in City Q and City S together to the number of females who watch Mentalist in the same cities together?
1) 59 : 47 2) 55 : 48 3) 59 : 42 4) 55 : 43 5) 59 : 45
16. Raghu invested a certain sum in Scheme X for 4 years. Scheme X offers simple interest @ 12 pcpa for the first two years and compound interest (compounded annually) @ 20 pcpa for the next two years. The total interest earned by him after 4 years is ` 11016. What was the sum invested by Raghu in Scheme X?
1) ` 17400 2) ` 18400 3) ` 16200
4) ` 11400 5) ` 9400

Directions (Q. 17): This question is based on the graph below:

Number of male and female teachers in four schools



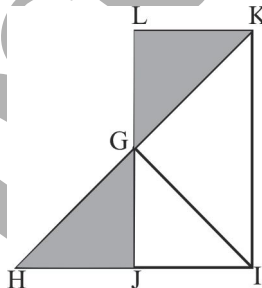
17. What is the difference between the average number of male and female teachers in the given schools?
 1) 10 2) 20 3) 5 4) 25 5) 15

Directions (Q. 18-22): In this question two equations numbered I & II are given. You have to solve both the equations and find out the correct option.

18. I. $6x^2 + 41x + 63 = 0$ II. $4y^2 + 8y + 3 = 0$
 1) Relationship between x and y cannot be established
 2) $x \geq y$ 3) $x < y$
 4) $x > y$ 5) $x \leq y$
19. I. $x^2 + 10x + 24 = 0$ II. $4y^2 - 17y + 18 = 0$
 1) $x \leq y$ 2) $x \geq y$
 3) Relationship between x and y cannot be established
 4) $x > y$ 5) $x < y$
20. I. $24x^2 + 38x + 15 = 0$ II. $12y^2 + 28y + 15 = 0$
 1) $x \leq y$ 2) $x > y$
 3) $x \geq y$ 4) $x < y$
 5) $x = y$, or Relationship between x and y cannot be established
21. I. $3x^2 - 20x - 32 = 0$ II. $2y^2 - 3y - 20 = 0$
 1) $x < y$ 2) $x \geq y$
 3) $x > y$ 4) Relationship between x and y cannot be established
 5) $x \leq y$
22. I. $x^2 - 20x + 91 = 0$ II. $y^2 - 32y + 247 = 0$
 1) $x > y$
 2) Relationship between x and y cannot be established
 3) $x \geq y$ 4) $x \leq y$
 5) $x < y$

Directions (Q. 23): In the figure given below:

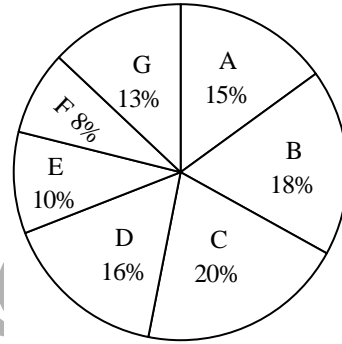
GHI is an equilateral triangle with side 14 cm. G is the midpoint of JL. What is the area of the shaded portion (in cm^2)?



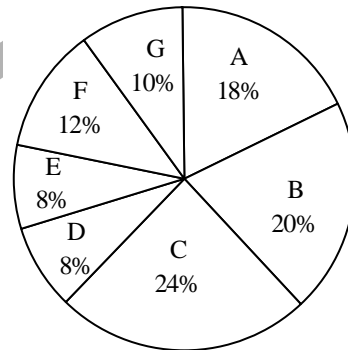
23. 1) $56\sqrt{3}$ 2) $70\sqrt{3}$ 3) $35\sqrt{3}$
 4) $49\sqrt{3}$ 5) $42\sqrt{3}$

Directions (Q. 24-28): Refer to the pie-chart and answer the given questions:

Distribution of the total number of novels (Romantic and Horror) sold by 7 stores
Total number = 63000



Distribution of the total number of Romantic novels sold by 7 stores
Total number = 36000



24. What is the ratio of the number of novels (Romantic and Horror) sold by store E to the total number of Horror novels sold by stores C and F together?
 1) 35 : 32 2) 45 : 32 3) 35 : 24 4) 35 : 26 5) 45 : 34
25. What is the average number of Horror novels sold by stores B, C, E and F together?
 1) 2960 2) 3060 3) 2680 4) 3240 5) 3180
26. What is the central angle corresponding to the number of novels (Romantic and Horror) sold by store B?
 1) 68.2° 2) 72.6° 3) 62.4° 4) 64.8° 5) 70.8°
27. The number of novels (Romantic and Horror) sold by store F is what per cent less than the total number of Romantic novels sold by stores B and G together?
 1) $51\frac{2}{3}$ 2) $53\frac{1}{3}$ 3) $55\frac{2}{3}$
 4) $58\frac{1}{3}$ 5) $56\frac{1}{3}$

28. What is the difference between the total number of Romantic novels sold by stores A, D and G together and the total number of Horror novels sold by the same stores together?
 1) 2000 2) 1600 3) 2400 4) 1800 5) 2200
29. A, B and C started a business investing ` 42000, ` 30000 and ` 28000 respectively. After 4 months A withdrew ` 12000, B withdrew ` 6000 and C withdrew ` 8000. If after 10 months a total profit of ` 46420 is earned, what is the share of C?
 1) ` 12580 2) ` 13160 3) ` 13020
 4) ` 12540 5) ` 12760

Directions (Q. 30-34): Study the following information to answer the questions.

In an organisation there are 1700 employees. The organisation has five departments – HR, Finance, Marketing, Administration and Manufacturing. Out of the total number of female employees in the organisation, 34% work in HR department, 20% work in Marketing department, 18% work in Finance department and the remaining 224 female employees work in Administration department. Manufacturing department has no female employees. Out of the total number of male employees in the organisation, 12% work in HR department, 35% work in Marketing department, 30% work in Finance department, 10% work in Administration department and the remaining employees work in Manufacturing department.

30. If the male employees in Finance department increase by 10%, the male employees in Administration department increase by 20%, 23 male employees join Manufacturing department and the number of male employees in HR and Marketing department remains the same, what is the percentage increase in the number of male employees in the organisation?
 1) $7\frac{4}{9}$ 2) $7\frac{1}{9}$ 3) $7\frac{5}{9}$
 4) $7\frac{2}{9}$ 5) None of these
31. The total number of male employees working in Marketing and Finance department together is what per cent of the total number of employees (male and female) working in these two departments together? (Round off to numerical integers).
 1) 66 2) 63 3) 62 4) 60 5) 70
32. If 26 male employees from HR department are transferred to Administration department and 28 female employees from Administration department are transferred to HR department, what is the ratio of the number of male employees to the number of female employees in Administration department after the transfer of employees?
 1) 23 : 49 2) 29 : 49 3) 25 : 49
 4) 23 : 47 5) 25 : 47

33. What is the average number of employees (male and female) who work in Manufacturing, Marketing and Administration departments together?
 1) 360 2) 392 3) 302 4) 368 5) 386
34. If equal number of female employees and male employees working in Finance department leave the job, the ratio of the number of male employees working in Finance department to the number of female employees working in the same department reduces to 40 : 19. What is the total number of employees working in Finance department who left the job?
 1) 20 2) 60 3) 30 4) 50 5) 40
35. A boat takes 35 minutes less to travel 28 km downstream than it takes to travel the same distance upstream. If the speed of the boat in still water is 14 kmph, what is the speed of the stream? (in kmph)
 1) 2.5 2) 6.5 3) 2 4) 9.5 5) 10.5

Directions (Q. 36-40): In the following number series, only one number is wrong. Find out the wrong number.

36. 41 45 61 97 181 261 405
 1) 181 2) 97 3) 261 4) 61 5) 45
37. 16 30 58 114 226 496 898
 1) 58 2) 226 3) 30 4) 114 5) 496
38. 15 21.5 46.5 145 585.5 2933 17603.5
 1) 585.5 2) 2933 3) 46.5 4) 145 5) 21.5
39. 5 6 16 57 246 1245 7506
 1) 16 2) 6 3) 1245 4) 246 5) 57
40. 2 13 46 145 452 1333 4006
 1) 1333 2) 452 3) 46 4) 145 5) 13
41. There are two vessels A and B. Vessel A is containing 40 litres of pure milk and vessel B is containing 22 litres of pure water. From vessel A, 8 litres of milk is taken out and poured into vessel B. Then 6 litres of mixture (milk and water) is taken out and from vessel B poured into vessel A. What is the ratio of the quantity of pure milk in vessel A to the quantity of pure water in vessel B?
 1) 14 : 9 2) 21 : 11 3) 24 : 13
 4) 14 : 5 5) 21 : 13
42. It takes 24 seconds for a train travelling at 93 kmph to cross entirely another train half its length travelling in opposite direction at 51 kmph. It passes a bridge in 66 seconds. What is the length of the bridge? (in m)
 1) 1065 2) 1600 3) 1705
 4) 1580 5) None of these
43. A rectangular plot, 36m long and 28m broad, has two concrete roads 5m wide running in the middle of the park, one parallel to the length and the other parallel to the breadth. What would be the total cost of gravelling the plot, excluding the area covered by the roads, @ ` 3.60 per sq m?
 1) ` 2772.20 2) ` 2466.60 3) ` 2654.40
 4) ` 2332.60 5) ` 2566.80

Directions (Q. 44-45): Study the following table to answer the given questions.

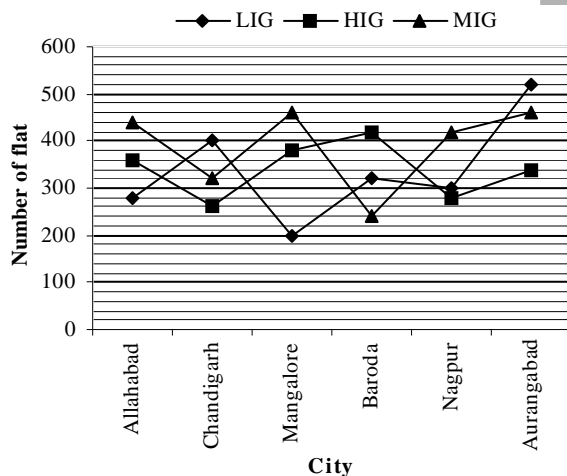
Number of girls studying IT and Electronics Engineering from Five colleges

College	IT	Electronics
A	240	315
B	350	285
C	260	225
D	325	255
E	275	220

44. The total number of girls studying IT Engineering from college B, C and D together is by what percent more than the total number of girls studying Electronics Engineering from these three colleges?
- 1) $22\frac{2}{9}$ 2) $23\frac{1}{9}$ 3) $22\frac{2}{3}$
 4) $23\frac{5}{9}$ 5) $23\frac{1}{3}$
45. What per cent of the girls in college C study Electronics Engineering out of the girls studying IT and Electronics Engineering? (rounded off to the nearest integer)
- 1) 46 2) 52 3) 51 4) 42 5) 49

Directions (Q. 46-50): Study the following graph carefully to answer the given questions.

Number of the flat booked in HIG, MIG and LIG categories from different cities in 2004.



46. If for Aurangabad the number of HIG flats booked in 2005 was more than that in 2004 by 15%, the number of MIG flats booked in 2005 was more than that in 2004 by 10% and the number of LIG flats booked in 2005 was more than that in 2004 by 20% then what was the total number of flats booked in Aurangabad in 2005?
- 1) 1565 2) 1521 3) 1625
 4) 1642 5) 1544

47. Out of the LIG flats booked from Chandigarh, 35% were by employees of a Financial Institution and out of the remaining flats, those booked by officers from a software company and HRM department of Government of India were in the ratio of 6 : 7. What was the total no. of LIG flats booked by officers from the software company?
- 1) 130 2) 120 3) 160
 4) 140 5) 150
48. The total number of MIG flats booked in Mangalore, Baroda and Nagpur is by what per cent more than the total number of LIG flats booked from these three cities together? (rounded off to the nearest integer)
- 1) 37 2) 35 3) 39
 4) 32 5) 34
49. What is the difference between the total number of MIG flats booked in Allahabad, Mangalore, Nagpur and Aurangabad together and the total number of LIG flats booked in these four cities together?
- 1) 420 2) 480 3) 460 4) 360 5) 260
50. What is the ratio of the total number of flats (all three types) booked in Allahabad to that in Baroda?
- 1) 54 : 49 2) 51 : 46 3) 54 : 47
 4) 58 : 49 5) 55 : 48

Test-II Reasoning Ability

Directions (Q. 51-55): Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data given in the statements are sufficient to answer the question. Read both statements and choose the most appropriate option.

51. How many persons are standing between L and K in a straight line of 19 persons? (Note: All are standing in a straight line, facing north).
- I. Y stands on the extreme left end of the line. Only five persons stand between Y and K. Only six persons stand between K and R. Only four persons stand between R and L.
- II. J stands exactly in the middle of the line. Only two persons stand between I and J. Only five persons stand between I and L. I stands to the left of L. K stands third to the left of J.
- 1) The data even in both statements I and II together are **not** sufficient to answer the question.
 2) The data in **both** statements I and II together are necessary to answer the question.
 3) The data in statement **II alone** are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.
 4) The data **either** in statement I alone or in statement II alone are sufficient to answer the question.

- 5) The data in statement **I alone** are sufficient to answer the question while the data in statement **II alone** are not sufficient to answer the question.
52. Among six persons A, B, C, D, E and F standing around a circle, some of them are facing the centre while others are facing outside (ie opposite to the centre.). What is the position of A with respect to E?
(**Note:** Facing the same direction means, if one is facing the centre then the other is also facing the centre and vice versa. Facing the opposite directions means, if one is facing the centre then the other is facing outside and vice versa).
- I.** C stands second to the right of E. E faces outside. C is an immediate neighbour of both D and B. F stands second to the left of D. D faces the same direction as E.
- II.** Only two persons stand between B and E. Both B and E face outside. E is an immediate neighbour of both D and F. B is an immediate neighbour of both C and A. A is not an immediate neighbour of D.
- 1) The data in **both** statements I and II together are necessary to answer the question.
 - 2) The data in statement **II alone** are sufficient to answer the question while the data in statement I alone are not sufficient to answer the question.
 - 3) The data even in both statements I and II together are **not** sufficient to answer the question.
 - 4) The data **either** in statement I alone or in statement II alone are sufficient to answer the question.
 - 5) The data in statement **I alone** are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.
53. How is X related to N?
- I.** X is mother of J. T is married to Z. N is daughter of T. Z is brother of J.
- II.** X is married to Y. Y is father of J. J is married to L. J is uncle of N.
- 1) The data even in both statements I and II together are **not** sufficient to answer the question.
 - 2) The data in statement **I alone** are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.
 - 3) The data **either** in statement I alone or in statement II alone are sufficient to answer the question.
 - 4) The data in **both** statements I and II together are necessary to answer the question.
 - 5) The data in statement **II alone** are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.
54. Among mobiles R, S, T, U, V and W, which is the costliest?
- I.** T is costlier than only two mobiles. S is costlier than R but not the costliest. V is costlier than only W.
- II.** R is cheaper than only two mobiles. V is costlier than W but cheaper than T. T is cheaper than R. S is cheaper than U.
- 1) The data in statement **II alone** are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.
 - 2) The data even in both statements I and II together are **not** sufficient to answer the question.
 - 3) The data **either** in statement I alone or in statement II alone are sufficient to answer the question.
 - 4) The data in statement **I alone** are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.
 - 5) The data in **both** statements I and II together are necessary to answer the question.
55. In a six-storey building (consisting of floors number 1 to 6, wherein the topmost floor is number 6 and the ground floor is number 1) each of the six friends, namely M, N, O, P, Q and R, lives on a different floor (not necessarily in the same order). Who amongst them lives on the lowermost floor?
- I.** M lives on floor number five. Only two persons live between M and N. Q lives immediately above P.
- II.** P lives on floor number three. Only two persons live between P and O. N lives immediately above R. N lives on an even-numbered floor.
- 1) The data even in both statements I and II together are **not** sufficient to answer the question.
 - 2) The data in statement **II alone** are sufficient to answer the question while the data in statement I alone are not sufficient to answer the question.
 - 3) The data in statement **I alone** are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.
 - 4) The data **either** in statement I alone or in statement II alone are sufficient to answer the question.
 - 5) The data in **both** statements I and II together are necessary to answer the question.
- Directions (Q. 56-61): In this question are given four statements followed by five conclusions, one of which definitely does not logically follow (or is not a possibility of occurrence) from the given statements. That conclusion is your answer.**
- (**Note:** You have to take the four given statements to be true even if they seem to be at variance with commonly known facts and then decide which of the given conclusions logically does not follow from the given statements disregarding commonly known facts.)
56. **Statements:** No toy is a doll.
All guns are toys.
All houses are dolls.
All dolls are baskets.
- Conclusions:**
- 1) All baskets are toys.
 - 2) No gun is a house.
 - 3) All guns being baskets is a possibility.
 - 4) All houses are baskets.
 - 5) No doll is a gun.

57. **Statements:** Some logics are reasons.
All reasons are arguments.
All arguments are fights.
No fight is a discussion.

Conclusions:

- 1) All discussions being logic is a possibility.
- 2) No discussion is an argument.
- 3) All logics being discussion is a possibility.
- 4) All reasons are fights.
- 5) No reason is a discussion.

58. **Statements:** All references are mails.
All mentions are references.
All comments are mentions.
No mail is a declaration.

- 1) No reference is a declaration.
- 2) All comments are mails.
- 3) No mention is a declaration.
- 4) All declarations being comments is a possibility.
- 5) At least some mails are mentions.

59. **Statements:** Some moments are flashes.
All moments are seconds.
All flashes are instances.
No instance is an hour.

Conclusions:

- 1) All hours being seconds is a possibility.
- 2) No second is a flash.
- 3) No hour is a flash.
- 4) At least some moments are instances.
- 5) At least some seconds are instances.

60. **Statements:** All circles are spheres.
All spheres are rectangles.
No rectangle is a pyramid.
No pyramid is a triangle.

- 1) At least some circles are pyramids.
- 2) All triangles being circles is a possibility.
- 3) All rectangles being triangles is a possibility.
- 4) At least some rectangles are circles.
- 5) No pyramid is a sphere.

61. **Statements:** No hotel is a motel.
All motels are apartments.
All apartments are inns.
No inn is a guesthouse.

- 1) All hotels being inns is a possibility.
- 2) No motel is a guesthouse.
- 3) All hotels being apartments is a possibility.
- 4) No motel is an inn.
- 5) No guesthouse is an apartment.

Directions (Q. 62): Read the following statements carefully and answer the given question.

Cocoa and chocolate products have been used as medicine in many cultures for centuries. Chocolate is made from plants, which means it contains many of the health benefits of leafy vegetables.

Which of the following statements **weakens** the above argument?

- (A) Dark chocolate contains a large number of antioxidants which slow down the ageing process.
- (B) A small study revealed that regular intake of chocolate increases insulin sensitivity, thus lowering the chances of diabetes.
- (C) Green leafy vegetables have substances which protect skin from UV rays.
- (D) Chocolates have three types of fats, one of which increases the cholesterol level.
- (E) Cocoa increases blood flow to the retina, thus giving a boost to vision.

- 1) Only D
- 2) Only A and E
- 3) Only C
- 4) None of the given statements
- 5) Both C and D

Directions (Q. 63-68): Study the following information and answer the questions.

Seven friends, namely L, M, N, O, P, Q and R, like different animated movies, namely Finding Nemo, Rio, Frozen, Up, Lion King, Shrek and Cars, but not necessarily in the same order. Each friend also has a presentation on topics of different subjects, namely Civics, History, English, Geography, Chemistry, Physics and Biology but not necessarily in the same order.

Q has a presentation on Civics and likes neither Frozen nor Up. The one who likes Finding Nemo has a presentation on History. L likes Rio and has a presentation neither on Geography nor on Chemistry. The one who likes Cars has a presentation on Biology. M has a presentation on Physics and does not like Up. The one who likes Up does not have a presentation on Chemistry. O likes Lion King. R does not have a presentation on History and does not like Up. P does not like Up.

63. On which of the following subjects does P have a presentation?

- 1) Chemistry
- 2) English
- 3) Biology
- 4) Other than those given as options
- 5) Geography

64. Four of the following five form a group as per the given arrangement. Which of the following does not belong to that group?

- 1) R – Cars
- 2) Q – Shrek
- 3) N – Up
- 4) M – Frozen
- 5) P – Rio

65. Which of the following combinations is definitely correct?

- 1) N – Chemistry
- 2) R – History
- 3) L – English
- 4) All the given combinations are definitely correct
- 5) P – Geography

66. Which of the following combinations of movie and subject is definitely correct with respect to N?
 1) Up – Chemistry
 2) Other than those given as options
 3) Shrek – Geography
 4) Up – Geography
 5) Finding Nemo – History
67. Four of the following five form a group as per the given arrangement. Which of the following does not belong to that group?
 1) Biology – Cars
 2) Chemistry – Lion King
 3) Civics – Shrek
 4) English – Frozen
 5) Geography – Up
68. Which of the following movies does Q like?
 1) Shrek
 2) Other than those given as options
 3) Finding Nemo
 4) Lion King
 5) Cars

Directions (Q. 69): The given information is followed by two statements. Read them carefully and answer the given questions.

Many parents have written a plea to the administration department of school X to discontinue the rule of wearing ties to school.

- (A) The school has kept different coloured ties for different academic scorers as part of their uniform. Thus the low-scoring children of school feel discriminated.
- (B) The sports uniform of the school does not have a tie; it is to be worn only on Wednesdays.
- 1) Statement A weakens but Statement B strengthens the argument.
 2) Both Statement A and Statement B weaken the argument.
 3) Statement B weakens but Statement A strengthens the argument.
 4) Both Statement A and Statement B strengthen the argument.
 5) Statement A strengthens the argument and Statement B is a neutral statement.

Directions (Q. 70-75): In the given questions, assuming the given statements to be true. Find which of the given four conclusions numbered I, II, III and IV is/are definitely true and give your answer accordingly.

70. **Statement:** $S > M \geq D > H \leq R \leq T < W$
Conclusions: I. $S > H$ II. $W > H$
 III. $R < W$ IV. $M > T$
- 1) Only I, II and III are true.
 2) Only II is true.
 3) Only I and II are true.

- 4) Only I and either II or IV are true.
 5) All I, II, III and IV are true.
71. **Statements:** $M > U > L \leq N; L \geq Y > A$
Conclusions: I. $Y < N$ II. $M > N$
 III. $N = Y$ IV. $M > A$
- 1) Only either II or III is true.
 2) Only IV and either I or III are true.
 3) Only IV is true.
 4) Only II is true.
 5) Only III is true.
72. **Statements:** $J \geq A > D = E; L < A < M$
Conclusions: I. $M < J$ II. $J > L$
 III. $D > L$ IV. $E < M$
- 1) Only II is true.
 2) Only I and III are true.
 3) None is true.
 4) Only II and IV are true.
 5) Only I and II are true.
73. **Statements:** $Y > F \leq O \leq P; F \geq U < T$
Conclusions: I. $Y > P$ II. $T < F$
 III. $O > T$ IV. $P < U$
- 1) Only I is true.
 2) Only II is true.
 3) Only III is true.
 4) None is true.
 5) Only I and IV are true.
74. **Statement:** $M > H \leq Y \leq R < U = Z \geq E$
Conclusions: I. $M > R$ II. $Z \leq R$
 III. $R > E$ IV. $Z > H$
- 1) Only I and II are true.
 2) Only IV is true.
 3) None is true.
 4) Only II and IV are true.
 5) Only II and III are true.
75. **Statement:** $P > Q \leq C \leq B = M > D$
Conclusions: I. $M > Q$ II. $D \leq Q$
 III. $M = Q$ IV. $C > D$
- 1) None is true
 2) Only IV is true.
 3) Only either I or III is true.
 4) Only II and I are true.
 5) Only I is true.

Directions (Q. 76-82): Study the following information carefully and answer the given questions.

A, B, C, D, E, F, G and H are sitting around a square table in such a way that four of them sit at four corners of the square while four sit in the middle of each of the four sides. The ones who sit at the four corners face the centre of the table while those who sit in the middle of the sides face outside. Each of them likes a different subject, viz Mathematics, Hindi, English, Biology, Chemistry, Physics, History and Geography. (None of the information given is necessarily in the same order.)

- 1 C sits third to the left of the one who likes Geography. The one who likes Geography faces outside. Only two persons sit between C and H.
- 1 The one who likes Mathematics sits on the immediate right of H. The one who likes Chemistry sits second to the right of G. G is neither an immediate neighbour of H nor of C. G does not like Geography.
- 1 Only one person sits between A and the one who likes Chemistry.
- 1 D sits on the immediate left of the one who likes Physics. G does not like Physics.
- 1 E likes History. E is not an immediate neighbour of A.
- 1 The one who likes Hindi is an immediate neighbour of E.
- 1 The one who likes Biology is an immediate neighbour of F.
76. Who amongst the following sits diagonally opposite the one who likes Mathematics?
 1) The one who likes Hindi
 2) D
 3) A
 4) The one who likes English
 5) The one who likes Biology
77. Who among the following represent the immediate neighbours of the one who likes Chemistry?
 1) B, F 2) C, E 3) B, E
 4) D, F 5) F, H
78. Who among the following sits exactly between H and B?
 1) C
 2) The one who likes Hindi
 3) The one who likes English
 4) G
 5) A
79. Which of the following is true regarding B?
 1) B is one of the immediate neighbours of D.
 2) The one who likes Geography is an immediate neighbour of B.
 3) B sits second to the left of H.
 4) B likes History.
 5) B is an immediate neighbour of the one who likes Mathematics.
80. What is the position of the one who likes Physics with respect to G?
 1) Second to the left 2) Third to the right
 3) Fourth to the left 4) Second to the right
 5) Third to the left
81. Which of the following subjects does D like?
 1) Biology 2) Mathematics 3) Hindi
 4) Chemistry 5) English
82. Who among the following likes Geography?
 1) B 2) F 3) H 4) A 5) D

Direction (Q. 83-85): Read the following information and the sentences (A), (B), (C), (D), (E) and (F) given below it carefully and answer the questions.

Scientists are worried that using very high concentration of repellents, a fogging agent is rendering mosquitoes more and more resistant. This is making the repellent ineffective over time.

- (A) Resistance development among mosquitoes is higher than all other insects. This shows that mosquitoes are more adaptive than other insects.
- (B) If the increase in concentration of repellent does not stop, it would end up becoming so toxic that it would endanger the health of humans as well as the ecosystem as a whole.
- (C) In places where increased concentration of mosquito repellents are used, mosquito control is more effective than in other areas.
- (D) While regular-concentration mosquito repellent must be sold at a subsidised price on government orders, the one with high concentration only helps make good profits.
- (E) The government should make a policy regarding the limits to concentration of mosquito repellents and ensure its strict implementation.
- (F) Development of resistance against repellent drugs is naturally present in mosquitoes and does not depend on the amount of repellent used.
83. Which of the given statements **weakens** the given information?
 1) A 2) D 3) E
 4) B 5) F
84. The development of resistance amongst mosquitoes may be purposefully done by the mosquito-repellent-producing companies. – An industry expert
 Which of the given statements **substantiates** the expert's comment?
 1) Both C and D 2) Only C 3) Only B
 4) Only D 5) Only A
85. Which of the following represents a **consequence** of the increased concentration of repellents?
 1) F 2) D 3) A
 4) B 5) C

Directions (Q. 86): Read the given information and answer the question.

Recently a youth was shifted to another hospital from hospital ABC due to food poisoning. The patient had been admitted in hospital ABC for Malaria. "Because no outside food is allowed in the hospital premises, we are very sure that it was the food provided by the hospital staff that led to the food poisoning." – A statement by the parents of the youth.

Which of the following can be a **course of action** to avoid such a mishap?

- 1) The parents of the patients should be given a compensation to ensure that the hospital is not criticised in any way.
- 2) The reason for the food poisoning should be

identified and the food provided in the hospital should be inspected regularly.

- 3) Local vendors which provide fruits, vegetables and other eatables to the hospital must be questioned.
- 4) CCTV cameras should be installed in the hospital cafeteria to ensure that spoilt food is not provided to the patients.
- 5) Patients should be asked to bring food from their houses rather than provide it at the hospital so that if such a case occurs again the hospital will not be responsible.

Directions (Q. 87-92): Read the given information and answer the questions.

When a word and number arrangement machine is given an input line of words and numbers it arranges them following a particular rule. The following is an illustration of input and rearrangement. (All the numbers are two-digit numbers)

Input: left 46 burn 82 95 part 72 vibe bold 49 mint 59

Step I. 95 left 46 burn 82 part 72 vibe 49 mint 59 bold

Step II. 82 95 left 46 part 72 vibe 49 mint 59 bold burn

Step III. 72 82 95 46 part vibe 49 mint 59 bold burn left

Step IV. 59 72 82 95 46 part vibe 49 bold burn left mint

Step V. 49 59 72 82 95 46 vibe bold burn left mint part

Step VI. 46 49 59 72 82 95 bold burn left mint part vibe

Step VI is the last step of the above arrangement as the intended output of arrangement is obtained.

As per the rules followed in the given steps, find the appropriate steps for the given input.

Input: 29 cone 42 pale fear 39 67 fame 32 weld 77 turn.

87. Which step number is the following output?

77 29 42 pale fear 39 67 fame 32 weld turn cone

- 1) I
- 2) III
- 3) VI
- 4) IV
- 5) There is no such step

88. What is the position of 'fame' from the right of '67' in the second-last step?

- 1) Eighth
- 2) Third
- 3) Fifth
- 4) Ninth
- 5) Seventh

89. Which of the following is the fifth element to the right of "29" in Step II?

- 1) cone
- 2) turn
- 3) fame
- 4) 39
- 5) 32

90. How many elements are there between '77' and 'weld' in the last step?

- 1) Five
- 2) Three
- 3) One
- 4) Four
- 5) Two

91. In step II, which element(s) appear(s) exactly between 'pale' and '32'?

- 1) Only 'weld'
- 2) Both 'weld' and '42'
- 3) Both 'fear' and '39'
- 4) Only 'fear'
- 5) Only '39'

92. Which of the following represents the first two and the last two elements in the third-last step?

- 1) 32, 39, pale, weld
- 2) 39, 42, fear, pale

- 3) 29, 32, pale, turn
- 4) 29, 32, pale, weld
- 5) 32, 39, fear, pale

Directions (Q. 93-94): Read the given information carefully and answer the given question.

Point N is 8m to the west of Point O. Point P is 4m to the south of Point O. Point Q is 4m to the east of Point P. Point R is 6m to the north of Point Q. Point S is 8m to the west of Point R. Point T is 2m to the south of Point S.

93. How far and in which direction is Point T from Point N?

- 1) 4m to the east
- 2) 8m to the west
- 3) 4m to the west
- 4) 8m to the east
- 5) 6m to the south

94. If point T is 4m to the north of point E, then what is the distance between E and Q?

- 1) 11m
- 2) 8m
- 3) 15m
- 4) 5m
- 5) 9m

95. **Read the given information carefully and answer the question:**

"People do not prefer working in private organisations today as private organisations do not provide any kind of job security."—Statement by a citizen of Country A. Which of the following **negates** the statement made by the citizen?

- 1) Some private companies in country A are very good paymasters and pay their employees well as long as their employees have good performance.
- 2) Many private organisations expect employees to work for them in order to ensure that the work is compared with others.
- 3) Private companies can take the liberty of firing employees based on their performance.
- 4) It has been noticed recently that private organisations take a lot of effort to retain their employees to get benefit from their experience.
- 5) Some private organisations prefer recruiting fresh graduates to extract more work in comparatively lesser pay.

96. **Read the given information and answer the question:**

During peak hours the local trains of city M are chaotic. Generally, peak hours are a specific time period in the morning when every one goes to work and in the evening when people return. Some people feel that the state government has not taken any measures in the past two years to deal with the situation.

Which of the following **weakens** the perceptions of the people?

- 1) In the past one year the state government has increased the frequency of trains in peak hours and has also increased the number of passengers per train.
- 2) In the past two years the state government has received many petitions signed by the locals of city M travelling by trains, suggesting that much improvement is required in the current condition of the trains.
- 3) The first-class passengers of the local trains feel that

their plight is worse than that of the second-class passengers in the trains.

- 4) As the population of the city is ever increasing due to high rate of migration and better job opportunity, there is a surge in the number of people travelling by trains.
- 5) A passenger has given a statement that 20 years ago it was possible to get inside the train.

Directions (Q. 97-100): Study the following information to answer the given questions.

A, B, C, D, E, F, G and H are sitting in a straight line equidistant from each other (but not necessarily in the same order). Some of them are facing south while some are facing north.

(Note: Facing the same direction means, if one is facing north then the other is also facing north and vice versa. Facing the opposite directions means if one is facing north then the other is facing south and vice versa.)

H faces north. C sits at one of the extreme ends of the line. A sits third to the left of C. D is not an immediate neighbour of C. G sits third to the right of A. B sits on the immediate right of G. B does not sit at any of the extreme ends of the line. Only one person sits between F and D. G sits second to the left of F. E sits second to the right of B. Both the immediate neighbours of G face the same direction. Both the immediate neighbours of A face the opposite directions. E faces the same direction as B.

97. Who amongst the following sits second to the right of F?
1) H 2) D 3) C 4) G 5) A
98. Which of the following is true with respect to the given information?
1) G sits at one of the extreme ends of the line.
2) B sits exactly between A and F.
3) B sits third to the right of E.
4) A faces north.
5) A sits second to the left of B.
99. How many persons in the given arrangement are facing North?
1) Four 2) One 3) Three
4) Two 5) More than four
100. Four of the following five are alike in a certain way and so form a group. Which of the following does not belong to the group?
1) B, A 2) D, C 3) E, B 4) A, E 5) G, F

Test-III

English Language

Directions (Q. 101-110): Read the following passage carefully and answer the questions given. Certain words have been given in bold to help you locate them while answering some of the questions.

Today, emerging markets account for more than half of world GDP on the basis of purchasing power, according to the

International Monetary Fund (IMF). In the 1990s, it was about a third. In the late 1990s, 30% of countries in the developing world managed to increase their output per person faster than America did, thus achieving what is called "catch-up growth". That catching up was somewhat lackadaisical: the gap closed at just 1.5% a year. Some of this was due to slower growth in America; most was not. The most impressive growth was in four of the biggest emerging economies: Brazil, Russia, India and China (BRICs). These economies have grown in different ways and for different reasons. The remarkable growth of emerging markets in general and BRICs in particular transformed the global economy in many ways, some wrenching.

Commodity prices particularly soared and the cost of manufacture and labour sank. A growing and vastly more accessible pool of labour in emerging economies played a part in both wage stagnation and rising income inequality in rich ones. Global poverty rates tumbled. Gaping economic imbalances fuelled an era of financial vulnerability and laid the groundwork for global crisis. The shift towards the emerging economies will continue. But its most tumultuous phase seems to have more or less reached its end. Growth rates have dropped. The nature of their growth is in the process of changing, too, and its new mode will have fewer direct effects on the rest of the world. The likelihood of growth in other emerging economies having an effect in the near future comparable to that of BRICs in the recent past is low. The emerging giants will grow larger, and **their ranks will swell but their tread will no longer shake the Earth as once it did.**

After the 1990s there followed 'convergence with a vengeance'. China's pivot towards liberalisation and global markets came at a propitious time in terms of politics, business and technology. Rich economies were feeling relaxed about globalisation and current account deficits. America, booming and confident, was not troubled by the growth of Chinese industry or by off-shoring jobs to India. And the technology etc necessary to assemble and maintain complex supply chains were coming into their own, allowing firms to spread their operations between countries and across oceans. The **tumbling** costs of shipping and communication sparked globalisation's "second unbundling" (the first was the simple ability to provide consumers in one place with goods from another). As longer supply chains infiltrated and connected places with large and fast-growing working-age populations, enormous quantities of cheap new labour became accessible. Advanced economies added about 160m non-farm jobs between 1980 and 2010. In 2007 China's economy **expanded** by an eye-popping 14.2%. India managed 10.1% growth, Russia 8.5% and Brazil 6.1%. The IMF now reckons there will be slowdown in growth. China will grow by just 7.8% in 2013, India by 5.6% and Russia and Brazil by 2.5%.

Other countries have impressive growth potential. The "Next 11" (N11) includes Bangladesh, Indonesia, Mexico,

Nigeria and Turkey. But there are various reasons to think that this N11 cannot have an impact on the same scale as that of the BRICs. The first is that these economies are smaller. The N11 has a population of just over 1.3 billion – less than half that of the BRICs. The second is that the N11 is richer now than the BRICs were back in the day. The third reason that the performance of the BRICs cannot be repeated is the very success of that performance. The world economy is much larger than it used to be – twice as big in real terms as it was in 1992, according to IMF figures. But whether or not the world can build on a remarkable era of growth will depend in large part on whether the new giants tread a path towards greater global co-operation – or stumble, fall and, in times of tumult and in the worst case, fight.

101. According to the passage, which of the following is a reason for the author's prediction regarding N11 countries?

- 1) N11 countries are poorer, have less resources than BRIC countries and do not have much scope to grow.
- 2) The size of these countries is too great to fuel a high rate of growth as expected by BRICs countries.
- 3) The world economy is so large that the magnitude of growth from these countries will have to be huge to equal the growth of BRICs.
- 4) These economies are agricultural and have not opened up their economies yet so their scope of growth is greater than that of BRICs.
- 5) Other than those given as options

102. What is the author's view of globalisation's "second unbundling"?

- 1) It proved beneficial since it created a large number of jobs and tremendous growth in cross-border trade.
- 2) It disturbed the fragile balance of power among BRIC nations and caused internal strife.
- 3) It caused untold damage to America's economy since it restricted the spread of American farms off-shore.
- 4) It proved most beneficial for the agricultural sector, creating huge employment opportunities.
- 5) Citizens in advanced countries became much better off than those in emerging economies.

103. Choose the word which is most nearly the SAME in meaning as the word **TUMBLING** given in bold as used in the passage.

- 1) jumbling 2) confusing 3) reducing
- 4) dilapidated 5) hurrying

104. What do the comparative statistics of 2007 and 2013 for BRIC countries published by the IMF as cited in the passage indicate?

- 1) BRIC economies will contribute less to global growth.
- 2) As the population of these countries grows, its growth rate is falling.
- 3) The financial practices followed by these countries will continue to pay rich dividends.

4) These countries are creating global financial imbalances to the detriment of smaller developing economies like Africa.

5) IMF forecasts of growth rate for these countries have not been fulfilled.

105. What effect did rising economies of BRICs have on the global economy?

- 1) It helped stabilise the global economy and insulate it from the fallout of the global financial crisis.
- 2) Labour became more highly skilled and wages were alarmingly increased, reducing the off-shoring of jobs to developing countries.
- 3) Though worldwide poverty rates tumbled, the gap between the rich and the poor in rich economies increased.
- 4) The cost of living and level of inflation in these countries were maintained at low levels.
- 5) All the given options are effects of the rise in BRIC economies.

106. What does the phrase "Their ranks will swell but their tread will no longer shake the Earth as it once did" convey in the context of the passage?

- 1) While many countries will try and achieve the same rate of growth as BRICs they will not succeed.
- 2) The growth of BRIC countries has changed the world's economy in ways that any further growth will not have such a disruptive effect on the world economy.
- 3) Developing countries have strengthened their fiscal systems in such a way that they will not be shaken to such a great extent again.
- 4) Poverty may increase as the gap between the rich and the poor increase but it will never reach the same levels as prior to the crisis.
- 5) Citizens in advanced countries became much better off than those in emerging economies.

107. Which of the following best describes 'catch-up growth'?

- 1) Emerging economies tried but failed to catch up with America, which always grew at a higher growth rate.
- 2) The size of emerging economies and their purchasing power has caught up with and now exceeds the rich countries together.
- 3) The growth of the American economy determines the growth of emerging economies.
- 4) From the later half of 1990s onwards emerging economies outdid America in terms of output per person.
- 5) None of the given statements describes 'catch up growth.'

108. Which of the following can be said about 'convergence with a vengeance'?

- (A) After the 1990s advanced economies like America were open to the idea of free trade and globalisation.

- (B) There were huge technology advances which were conducive to allowing businesses to spread their area of operations.
- (C) Rich economies felt threatened by the competition from China.
- 1) Only (A) 2) Only (B)
3) Only (C) 4) Only (A) and (B)
5) Only (B) and (C)
109. Choose the word which is OPPOSITE in meaning to the word EXPANDED given in bold as used in the passage.
1) widened 2) pressured 3) delayed
4) shrunk 5) frightened
110. What is the author's main objective in writing the passage?
(A) To urge emerging economies to deal with growth, which can be disruptive, maturely and without conflict
(B) To point out that while the period of growth of BRICs was disruptive this disruption has almost come to a close.
(C) To criticise advanced economies for their handling of growth and promoting competition and conflict in certain regions
- 1) Only (A) and (B) 2) Only (A)
3) Only (C) 4) All (A), (B) and (C)
5) Only (B) and (C)

Directions (Q. 111-115): Which of the phrases given against the sentence should replace the word/phrase given in bold in the sentence to make it grammatically correct? If the sentence is correct as it is given and no correction is required, mark (5), ie (No correction required), as the answer.

111. Top managers are often stymied by the **difficult of managing** conflict.
1) difficulties of managing
2) difficulty for managing
3) difficulty for management
4) difficult of management
5) No correction required
112. Reaching collective decisions **based on** individual preferences is an imperfect science.
1) based for 2) based 3) in
4) based in 5) No correction required
113. Hollywood **bare escaped** being totally sidelined by the rise of television.
1) bare escapism 2) barely escapism
3) bare escapes 4) barely escaped
5) No correction required
114. Taking good decisions and **implement those quickly** are the hallmarks of high-performing organisations.
1) implementation quickly
2) implementing quick
3) implementing these quickly
4) quick implementing those
5) No correction required

115. Innovation **have always been** the top corporate agenda.
1) has always 2) had being
3) has always been 4) always been
5) No correctin required

Directions (Q. 116-120): Rearrange the six sentences denoted by A, B, C, D, E and F to make a meaningful seven-sentence paragraph together with the first sentence marked as no. 1 and then answer the given questions.

- (1) So how is global competition changing companies?
(A) For example, a group with a Europe-wide pay freeze may have to be flexible enough to authorise salary increases to specialists and managers in developing countries, who are still able to jump ship for a better offer.
(B) Second, the emerging-market companies as well as established multinationals are rivals, – there is no way these can be ignored.
(C) First, businesses are having to respond faster than before to pay changes.
(D) A case in point today is Africa, where rapid growth in key countries, notably Nigeria, has persuaded many business people that the continent's time may finally have arrived.
(E) The sight of well-paid expatriate foreign managers inspires the local Indian executives to ask for more and employers have to respond.
(F) So such countries where people move easily – like India – are seeing executive pay rising rapidly.
116. Which of the following should be the **LAST (SEVENTH)** sentence after the rearrangement?
1) F 2) E 3) D 4) C 5) B
117. Which of the following should be the **FOURTH** sentence after the rearrangement?
1) A 2) B 3) C 4) D 5) F
118. Which of the following should be the **FIFTH** sentence after the rearrangement?
1) A 2) B 3) C 4) E 5) F
119. Which of the following should be the **SECOND** sentence after the rearrangement?
1) A 2) B 3) C 4) E 5) F
120. Which of the following should be the **THIRD** sentence after the rearrangement?
1) A 2) B 3) C 4) D 5) E
- Directions (Q. 121-130): Read the following passage carefully and answer the given questions. Certain words have been given in bold to help you locate them while answering some of the questions.**

The new economy has ushered in great business opportunities—and great turmoil. Most traditional organisations have accepted, in theory at least, that they must either change or die. Even giants such as eBay, Amazon.com, and America Online recognise that they need to manage the changes associated with rapid entrepreneurial growth. Despite

some individual successes, however, change remains difficult to pull off, and few companies manage the process as well as they would like. Most of their initiatives—installing new technology, downsizing, restructuring, or trying to change corporate culture—have had low success rates. The brutal fact is that about 70% of all change initiatives fail.

In our experience, the reason for most of those failures is that in their rush to change their organisations, managers end up **immersing** themselves in an alphabet soup of initiatives. They lose focus and become mesmerised by all the advice available in print and online about why companies should change, what they should try to accomplish, and how they should do it. This proliferation of recommendations often leads to muddle when change is attempted. The result is that most change efforts exert a heavy toll, both human and economic. To improve the odds of success, and to reduce the human carnage, it is **imperative** that executives understand the nature and process of corporate change much better. But even that is not enough. Leaders need to crack the code of change.

For more than 40 years now, we have been studying the nature of corporate change. And although every business's change initiative is unique, our research suggests there are two archetypes, or theories, of change. These archetypes are based on very different and often **unconscious** assumptions by senior executives—and the consultants and academics who advise them—about why and how changes should be made. **Theory E** is change based on economic value. **Theory O** is change based on organisational capability. Both are valid models; each theory of change achieves some of management's goals, either explicitly or implicitly. But each theory also has its costs—often unexpected ones.

Theory E change strategies are the ones that make all the headlines. In this “hard” approach to change, shareholder value is the only **legitimate** measure of corporate success. Change usually involves heavy use of economic incentives, drastic layoffs, downsizing, and restructuring. **E** change strategies are more common than **O** change strategies among companies in the United States, where financial markets push corporate boards for rapid turnarounds. For instance, when William A Anders was brought in as CEO of General Dynamics in 1991, his goal was to maximise economic value—however painful the remedies might be. Over the next three years, Anders reduced the workforce by 71,000 people—44,000 through the divestiture of seven businesses and 27,000 through layoffs and attrition. Anders employed common **E** strategies.

Managers who subscribe to **Theory O** believe that if they were to focus exclusively on the price of their stock, they might harm their organisations. In this “soft” approach to change, the goal is to develop corporate culture and human capability through individual and organisational learning—the process of changing, obtaining feedback, reflecting, and making further changes. US companies that adopt **O** strategies, as Hewlett-Packard did when its performance

flagged in the 1980s, typically have strong, long-held, commitment-based psychological contracts with their employees.

Managers at these companies are likely to see the risks in breaking those contracts. Because they place a high value on employee commitment, Asian and European businesses are also more likely to adopt an **O** strategy to change.

Few companies subscribe to just one theory. Most companies we have studied have used a mix of both. But all too often, managers try to apply theories **E** and **O** in tandem without resolving the inherent tensions between them. This impulse to combine the strategies is directionally correct, but theories **E** and **O** are so different that it's hard to manage them simultaneously—employees distrust leaders who alternate between nurturing and cutthroat corporate behavior. Our research suggests, however, that there is a way to resolve the tension so that businesses can satisfy their shareholders while building viable institutions. Companies that effectively combine hard and soft approaches to change can reap big payoffs in profitability and productivity.

121. Which of the following is most nearly the OPPOSITE in meaning as the word **LEGITIMATE** as used in the passage?

- 1) legal 2) criminal 3) sensitive
4) invalid 5) regular

122. Which of the following statements is TRUE in the context of the passage?

- 1) Theory **E** strategies are more likely to be popular among organisations of Asian countries.
2) Quite often, organisations opt for either of the two theories of organisational change suggested by the author.
3) Theory **E** change strategies focus more on maximising economic worth of an organisation.
4) The theories of change mentioned by the author are based on tested methods.
5) None of the given statements is true.

123. The author in the given passage focuses on the following EXCEPT

- 1) change not as easy as it appears
2) how to increase profitability through organisational change
3) bringing about successful organisational change
4) hindrances in the process of organisational change
5) theories explaining the dynamics of organisational change

124. In the context of the passage, which of the following could possibly be an effect(s) of adopting Theory **E**, on employees for bringing about organisational change?

- 1) Employees become more attached with the organisation
2) Insecurity among employees
3) Improved morale of employees

- 4) Employees resorting to malicious methods to get faster promotions
 5) All those given as options
125. According to the author, for organisational change to be successful
- 1) executives must focus on understanding the process of change.
 - 2) organisations must be willing to excuse those involved in the change process, in case it is unsuccessful.
 - 3) organisations must be willing to spend generously during the process.
 - 4) those involved in the change process must be given specialised training.
 - 5) None of the given options
126. As mentioned in the passage, despite best efforts, many organisations fail to bring about a change because
- (A) they lose track of important information between the huge amount of information available to them.
 - (B) they rarely change the roles assigned to employees throughout the change process.
 - (C) they tend to depend on a consultant, an outsider, who barely knows the culture of the organisation.
- 1) Only (A) 2) Only (B)
 - 3) Only (C) 4) Both (A) and (B)
 - 5) Both (B) and (C)
127. Which of the following is most nearly the SAME in meaning as the word 'IMMERSING' as used in the passage?
- 1) engrossing 2) fascinating
 - 3) ignoring 4) saving
 - 5) holding
128. Which of the following is most nearly the OPPOSITE in meaning as the word 'IMPERATIVE' as used in the passage?
- 1) optional 2) mandatory 3) significant
 - 4) slight 5) binding
129. In the author's view the best way to bring about organisational change is a blend of Theory E and O and this can be achieved through
- 1) educating employees on the benefits of employing these theories.
 - 2) creating a specialised team of employees, thorough with these theories, for bringing about change
 - 3) motivating employees
 - 4) modelling successful change process of organisations that employed one of these theories.
 - 5) Other than those given as options
130. Which of the following is most nearly the SAME in meaning as the word UNCONSCIOUS as used in the passage?
- 1) comatose 2) automatic 3) distracted
 - 4) false 5) intentional

Directions (Q. 131-140): In the following passage, there are blanks each of which has been numbered. For each blank five words have been suggested, one of which fits the blank appropriately. Find out the appropriate word in each case.

WHO estimates that, within the next few years, non-communicable diseases will become the principal global (131) of morbidity and mortality. The role of diet in the diagnosis of most non-communicable diseases is well (132). The shift towards highly refined foods and towards meat and dairy products containing high levels of saturated fats, now increasingly (133) in middle-income and lower-income countries, have, together with reduced energy (134), contributed to rises in the (135) of obesity and non-communicable diseases. Because of the global extent of the epidemic, the advantages of promoting healthy diets and preventing overnutrition should be explored.

The prohibitive costs of treating the consequences of overnutrition require that increased attention be given to preventive measures. Parallels exist between these requirements and the initiatives taken to control tobacco consumption, from which important (136) can be learnt, especially with respect to the use of international legal instruments. However, because some of the largest multinational companies are heavily involved in the creation and marketing of unhealthy foods, the control of these activities presents a (137) challenge. There is a growing (138) that prevention demands public health actions at both the national and global levels, ranging from more health education to improved food labelling and controls on the marketing of certain foods and soft drinks. This will require innovative and committed (139) by all (140).

131. 1) session 2) effect 3) result
 4) causes 5) trouble
132. 1) document 2) established 3) aware
 4) timed 5) proportioned
133. 1) appeared 2) presenting 3) evident
 4) prevalence 5) existed
134. 1) cost 2) expenditure 3) intake
 4) savings 5) expansion
135. 1) incidence 2) happening 3) commonality
 4) occasion 5) expulsion
136. 1) tutorials 2) lessons 3) practice
 4) point 5) habits
137. 1) formidable 2) pretentious 3) alarming
 4) enormous 5) solution
138. 1) need 2) demand 3) association
 4) credit 5) recognition
139. 1) amalgamation 2) joining 3) knowledge
 4) collaboration 5) information
140. 1) party 2) population 3) politicians
 4) segmentations 5) concerned

Test-IV

Computer Knowledge

141. Which of the following places the common data elements in order from smallest to largest?
 1) Bit, byte, character, record, field, file, database
 2) Database, file, record, field, character
 3) Character, record, field, database, file
 4) Character, file, record, field, database
 5) Character, field, record, file, database
142. Specialised programs that assist users in locating information on the web are called
 1) Web browsers 2) Information engines
 3) Data engines 4) Search engines
 5) None of these
143. What is the term for unsolicited e-mail?
 1) Flamming 2) Usenet 3) Spam
 4) Backbone 5) News Group
144. Processor speed is measured in
 1) bytes 2) gigabytes 3) gigahertz
 4) megabytes 5) kilobytes
145. Which of the following can be used to select the entire document?
 1) Ctrl + H 2) Alt + S 3) Shift + E
 4) Ctrl + A 5) Ctrl + K
146. The buying or selling of goods over the internet is termed as
 1) e-selling 2) e-buying 3) e-business
 4) e-commerce 5) e-transaction
147. What are the programs that block access to selected websites known as?
 1) Channels 2) Filters 3) Browsers
 4) Telnet 5) Drivers
148. Which of the following is not a valid version of MS-Office?
 1) Office 2000 2) Office XP
 3) Office 2003 4) Office 2007
 5) Office Vista
149. Which of the following is used to write Web pages?
 1) URL 2) HTML 3) Telnet
 4) HTTP 5) FTP
150. A computer chip is also called a
 1) register 2) switch 3) server
 4) modem 5) microprocessor
151. VIRUS stands for _____
 1) Vital Information Region Under Siege
 2) Vital Information Recourse Under System
 3) Vital Information Resource Under Secure
 4) Vital Information Resource Under Siege
 5) Virus Information Recourse Under Siege
152. Verification of a login name and password is known as
 1) Configuration 2) Accessibility
 3) Logging in 4) Authentication
 5) Subscription
153. Microsoft Word is an example of a/an
 1) system software 2) application software
 3) operating system 4) processing device
 5) input device
154. What does the acronym PDF stand for?
 1) Portable Documentation File
 2) Portable Document Format
 3) Portable Document File
 4) Portable Documenting Format
 5) Portable Documentation Format
155. Which of the following refers to programs stored in ROM?
 1) Hardware 2) Software 3) Peripheral
 4) Firmware 5) Freeware
156. In processing cheques, which of the following PO techniques have Indian banks traditionally followed?
 1) VRT 2) OMR 3) OCR
 4) Barcode 5) MICR
157. Windows Explorer is the name of
 1) a drive 2) a file manager
 3) a web browser 4) an internet server
 5) a network
158. GUI stands for
 1) Graphical Universal Interference
 2) Graphic Universal Interface
 3) Graphical User Interface
 4) Graphical Unity Interference
 5) Graph Utility Interference
159. _____ is the process of finding errors in software code.
 1) Exchanging 2) Debugging 3) Running
 4) Compressing 5) None of these
160. DOS stands for
 1) Disk Operating Session
 2) Disk Operating System
 3) Digital Operating System
 4) Disk Opening Source
 5) Digital Open System

Test-V

General Awareness

161. Which of the following is the boundary line between India and Pakistan?
 1) 17th Parallel
 2) Radcliffeline
 3) Other than those given as options
 4) Hindenburg Line
 5) McMahan Line
162. Banks generally insist account holders to nominate persons to whom the money lying in their accounts should go in the event of
 1) death of account holder
 2) illness of account holder

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- 3) account holder migrates
4) account holder turns bankrupt
5) Other than those given as options
163. Credit Risk refers to the risk that
- 1) borrower may opt to get necessary permit/licences
 - 2) wrong strategy is adopted
 - 3) a borrower will default on any type of debt
 - 4) loan processing may be faulty
 - 5) interest rate in the markets may increase
164. Which of the following is the currency of Cambodia?
- 1) Cambodian Dollar
 - 2) Ringgit
 - 3) Peso
 - 4) Riel
 - 5) Other than those given as options
165. Which of the following is a source of collecting money from the public for a company for the first time?
- 1) Rights issue
 - 2) Bonus shares
 - 3) Follow on offering
 - 4) Initial public offer
 - 5) Secondary offering
166. Which of the following concepts of banking involves booking of web-enabled touch point for basic banking services?
- 1) Extension Centers
 - 2) Retail Banking
 - 3) Kiosk Banking
 - 4) Satellite Banking
 - 5) Mobile Banking
167. Face value of a Government security is the amount that is to be paid to an investor at the maturity date of the security. The face value is not the same as the
- 1) Par value
 - 2) Market Price
 - 3) Redemption value
 - 4) Repayment amount
 - 5) Principal value
168. As per the 2011 Census report, India's population below the age of 35 years is
- 1) between 30 & 35%
 - 2) between 40 & 50%
 - 3) between 35 & 40%
 - 4) more than 65%
 - 5) between 50 & 65%
169. The facility to help insurance policy holders buy and keep policies in electronic form rather than as a paper document is called
- 1) Insurance Warehousing
 - 2) Insurance Cache
 - 3) Insurance Stockpile
 - 4) Insurance Depository
 - 5) Insurance Repository
170. Based on the recovery of the dues, banks are required to classify non-performing assets (NPAs) in the books of the bank under the categories
- 1) Substandard, Doubtful and Bad Debts
 - 2) Standard, Doubtful and Written-Off Assets
 - 3) Standard, Substandard and Doubtful Assets
 - 4) Standard, Doubtful and Loss Assets
 - 5) Substandard, Doubtful and Loss Assets
171. A mutual fund scheme in which the investors commit their money for a particular period is known as

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- 1) Long-End Scheme
 - 2) Closed-End Scheme
 - 3) Long-Term Fund
 - 4) Open-End Scheme
 - 5) Back-End Scheme
172. In the Asian Games who among the following won the silver Medal for India in Squash?
- 1) Geetika Jakhar
 - 2) Yogeshwar Dutt
 - 3) Vinesh Phogat
 - 4) Saurav Ghosal
 - 5) Other than those given as options
173. Plant Genome Saviour Community Awards are given by Protection of Plant Varieties and Farmer's Right Authority (PPV & FRA) for
- 1) getting the highest yield of crops
 - 2) Other than those given as options
 - 3) engagement in the conservation of genetic resources of economic plants and their wild relatives
 - 4) ensuring soil conservation and preventing use of chemicals
 - 5) using traditional seeds and fertilizers to protect the soil
174. CP is an unsecured money market instrument issued in the form of a promissory note. In the abbreviation CP, letter 'P' stands for
- 1) Paper
 - 2) Portfolio
 - 3) Payment
 - 4) Promissory
 - 5) Position
175. Vishal Sikka is the CEO of
- 1) Tata Group of Companies
 - 2) Cognizant
 - 3) Oracle
 - 4) Infosys
 - 5) Other than those given as options
176. The process that has to be undertaken by banks and other financial institutions to prevent them from being used by criminal elements for money laundering is
- 1) Credit Monitoring Process
 - 2) Credit Rating Process
 - 3) KYC Process
 - 4) Due diligence Process
 - 5) Credit Appraisal Process
177. CVV is an anti-fraud security feature that helps verify that the customer is in possession of her card. The abbreviation of CVV stands for
- 1) Card Virtual Valuation
 - 2) Confidential Virtual Verification
 - 3) Card Verification Value
 - 4) Core Virtual Value
 - 5) Coded Vulnerability Value
178. Which of the following is the capital of Argentina?
- 1) Addis Ababa
 - 2) Other than those given as options
 - 3) Buenos Aires
 - 4) Seoul
 - 5) Phnom Penh
179. With introduction of ATMs, telebanking and internet banking, banking hours is not a constraint for transacting banking business, which is known as

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- 1) Universal Banking 2) Worldwide Banking
3) Anywhere Banking 4) Global Banking
5) Other than those given as option
180. Which of the following institutions is a Credit Information Company?
1) ARCIL 2) CRISIL 3) CIBIL
4) ICRA 5) CARE
181. The slogan 'Yogakshemam Vahamyaham', which translates in English as 'your welfare is our responsibility', is associated with
1) SBI General Insurance
2) LIC of India
3) National Insurance Company
4) United India Insurance
5) Other than those given as options
182. The Reserve Bank of India has recently issued draft policy guidelines for differentiated banks' licences which are
1) exclusively for foreign banks
2) aimed at the cooperative sector
3) aimed at Non Banking Financial Companies
4) Other than those given as options
5) aimed at furthering financial inclusion
183. The Fair Practice Code for Credit Card Operations in the banking industry has been evolved by
1) Indian Banks' Association (IBA)
2) Reserve Bank of India (RBI)
3) Banking Codes and Standards Board of India (BCSBI)
4) Banking Ombudsman (BO)
5) National Institute of Bank Management (NIBM)
184. The recently launched 'Deen Dayal Upadhyaya Gramin Kaushal Yojana' (DDUGKY) is a central government scheme aimed at
1) family welfare in rural area
2) improving irrigation potential
3) employment generation in urban area
4) skill improvement in rural area
5) improving financial literacy
185. When an account does not have sufficient balance to honour the cheque issued by the account holder, the cheque is returned by the bank, which is known as
1) cheque discounting 2) cheque truncation
3) cheque kiting 4) bouncing of cheque
5) cheque validation
186. The alphabet 'P' in the abbreviation EFTPOS stands for
1) Point 2) Private 3) Public
4) Primary 5) Permanent
187. ATM is an electronic tele-communication device that helps bank customers perform financial transactions. The letter A in the abbreviation ATM stands for
1) Anytime 2) Anywhere 3) Automated
4) Advance 5) Account
188. Which of the following countries has assured India to provide lifetime fuel to the Kudankulam Nuclear Power Plant?
1) Russia 2) Germany 3) France
4) Spain 5) USA
189. Who among the following Bollywood stars was a state-level badminton player?
1) Madhuri Dixit 2) Deepika Padukone
3) Priyanka Chopra 4) Kareena Kapoor
5) Anushka Sharma
190. Dr Najma Heptulla is the Union Cabinet Minister for
1) Communication, IT, Law & Justice
2) Tribal Affairs 3) Minority Affairs
4) Agriculture 5) Chemicals and Fertilizer
191. Dynamite was invented by
1) Marie Curie
2) Alexander Flemming
3) Charles Darwin
4) Other than those given as options
5) Alfred Nobel
192. Who among the following is the author of the book *Hard Choices*?
1) Barack Obama
2) Hillary Clinton
3) Other than those given as options
4) Abraham Lincoln
5) Bill Clinton
193. The Bank for International Settlements (BIS) is an international organisation of central banks headquartered in
1) Zurich, Switzerland 2) New York, USA
3) Basel, Switzerland 4) Paris, France
5) Geneva, Switzerland
194. The Reserve Bank has recently issued the guidelines allowing minors to operate bank accounts, which is aimed at
1) mobilising high level of savings
2) furthering financial inclusion
3) developing consumption culture amongst the children
4) developing borrowing habits at an early age
5) boosting government's anti-poverty programmes
195. Star Union Daichi Life Insurance Company Limited is a joint venture between Daichi Life, a leading life insurance company of Japan, Union Bank of India and
1) Bank of India
2) State Bank of India
3) Axis Bank
4) ICICI Bank
5) Indian Bank
196. Zend-Avesta is the primary collection of sacred text of
1) Sufism 2) Buddhism 3) Bahai faith
4) Jews 5) Parsis
197. The abbreviation 'GDP' stands for
1) Gross Domestic Product
2) Globally Dominant Person
3) General Domestic Position

- 4) Global Depository Product
 5) Gross Depository Position
198. Who among the following was the founder of Anandwan?
 1) Baba Amte
 2) Sindhutai Sapkal
 3) Abhay Bang
 4) Medha Patkar
 5) Other than those given as options
199. With the success of Mars Orbiter Mission, India became the fourth Space-power to send craft to Mars. The other three are

- 1) Former Soviet Union, US and China
 2) US, Former Soviet Union and Japan
 3) US, Europe and Former Soviet Union
 4) US, China and Japan
 5) Other than those given as options
200. Banks today are focusing more on Retail Banking, which offers opportunities to banks to
 1) invest in capital markets
 2) consider large-ticket term loans
 3) set up joint ventures
 4) cross-set other retail loan products
 5) lend to corporates

Answers and explanations

1. 1; Let the number of cakes be 100.
 Let each cake's cost price be ` 100.
 Then, total cost price = `(100 × 100) = ` 10000
 Now, market price of each cake = $\frac{100 \times 140}{100} = ` 140$
 Now, selling price of 24 cakes = $24 \times \frac{100 \times 80}{100} = ` 1920$
 And selling price of 60 cakes = $60 \times 140 = ` 8400$
 \therefore Total selling price = $8400 + 1920 = ` 10320$
 Profit = $10320 - 10000 = 320$
 \therefore Req'd % profit = $\frac{320}{10000} \times 100 = 3.2\%$
2. 5; Let the partly fixed expenditure be x.
 And that partly varying be y.
 Then, $x + 24y = 615 \times 24 \dots$ (i)
 Again, $x + 40y = 465 \times 40 \dots$ (ii)
 Solving equations (i) and (ii), we get
- $$\begin{array}{r} x + 24y = 615 \times 24 \\ x + 40y = 465 \times 40 \\ \hline - \quad - \quad - \\ 16y = 18600 - 14760 = 3840 \end{array}$$
- $y = \frac{3840}{16} = 240$
 Putting the value of y in equation (i), we get
 $x = 24(615 - 240) = 24 \times 375 = 9000$
 Now, when there are 60 students
 Average = $\frac{9000 + 240 \times 60}{60} = \frac{9000 + 14400}{60} = \frac{23400}{60} = ` 390$
3. 3; Let the present age of A be 7x years and that of B be 9x years.
 Now, 6 years ago, $\frac{3(7x - 6)}{3(9x - 6)} = \frac{1}{2}$

- or, $42x - 36 = 27x - 18$ or, $15x = 18$
 $\therefore x = \frac{6}{5}$ years
 Ratio after 6 years
 $\frac{7 \times 6}{5} + 6 = \frac{42 + 30}{5} = \frac{72}{5}$
 $\frac{9 \times \frac{6}{5} + 6}{54 + 30} = \frac{72}{84} = 6 : 7$
 \therefore Req'd ratio = 6 : 7
4. 2; All three spend equal amount of time on typing.
 Req'd ratio of all the three
 $A : B : C = \frac{1}{12} : \frac{1}{15} : \frac{1}{24} = 10 : 8 : 5$
 So, the number of pages typed by B
 $= \frac{8 \times 506}{23} = 176$
5. 1; **From I.** Base = 4x and height = 3x
 Hence we can't determine the exact value of 4x. So I alone is not sufficient to answer the question.
From II. Area of triangle = 48 cm²
 Now, $\frac{1}{2} \times \text{base} \times \text{height} = 48$
 $\therefore \text{base} \times \text{height} = 96 \dots$ (i)
 Again, height = $\frac{2}{3} \times \text{perimeter} = \frac{2}{3} \times 36 = 24$ cm
 Now, from (i)
 Base $\times 24 = 96$
 \therefore Base = 4 cm
 Hence II alone is sufficient to answer the question.
6. 3; **From I and II.** The length of the train is not given. So we can't determine the speed of the train. Hence both statements I and II are not sufficient to answer the question.
7. 5; **From I.** Let the principal be P.
 Then, amount (A) = 4P
 $\therefore SI = 4P - P = 3P$
 T = 24 years

$$\text{Rate} = \frac{SI \times 100}{P \times T} = \frac{3P \times 100}{P \times 24} = 12.5\%$$

From II. Difference = $\frac{P \times R^2}{(100)^2}$

$$\text{or, } R^2 = \frac{156.25 \times 100 \times 100}{10000}$$

$$\therefore R = \sqrt{156.25} = 12.5\%$$

Hence either I alone or II alone are sufficient to answer the question.

8. 5; **From I.** 35% are females in Institute X.

And the number of females in Institute X = Number of males in Institute Y.

From II. Total number of students in Institute Y

$$= \frac{560 \times 100}{28} = 2000, \text{ where } 560 \text{ are males.}$$

From I and II. Number of females in Institute X = 560, which is equal to 35% of the total strength of Institute X.

Now, total strength of Institute X

$$= \frac{560 \times 100}{35} = 1600$$

So, both the data are necessary to answer the question.

9. 5; **From I and II.** Area of 4 walls of a room

= 2(Length + Breadth) × height

$$\therefore \text{Breadth} = \frac{1458}{54} = 27\text{m}$$

$$\text{And Length} = \frac{27 \times 200}{100} = 54\text{m}$$

\therefore Perimeter of four walls = 2(l + b) = 2(54 + 27) = 162m

\therefore Cost of fencing a rectangular plot = 162 × 450 = ₹ 72900

10. 4; Perimeter = 2πr or, 2πr = 220

$$\therefore r = \frac{220 \times 7}{22 \times 2} = 35$$

Angle of the shaded arc = 360° - 140° = 220°

$$\text{Now, area of the sector} = \frac{\theta}{360^\circ} \times \pi \times 35 \times 35$$

$$= \frac{220}{360} \times \frac{22}{7} \times 35 \times 35 = \frac{121 \times 175}{9} = \frac{21175}{9}$$

$$= 2352 \frac{7}{9} \text{ cm}^2$$

11. 4; The number of people who watch Arrow in R, Q and T together

$$= \left(\frac{50000 \times 10}{100} + \frac{50000 \times 22}{100} + \frac{20000 \times 20}{100} \right)$$

$$+ \left(\frac{20000 \times 16}{100} + \frac{50000 \times 12}{100} + \frac{5000 \times 14}{100} \right)$$

$$= 5000 + 11000 + 4000 + 3200 + 6000 + 7000 = 36200$$

The number of people who do not watch Arrow

$$= 34000 + 12800 + 37000 = 83800$$

$$\therefore \text{Difference} = 83800 - 36200 = 47600$$

Quicker Method:

$$\text{Reqd difference} = 50000 \times \frac{(68 - 32)}{100} + 20000$$

$$+ \left(\frac{64 - 36}{100} \right) + 50000 \times \frac{(74 - 26)}{100}$$

$$= 18000 + 5600 + 24000 = 47600$$

12. 1; Total number of males who watch Big Bang Theory

$$= 40000 \times \frac{12}{100} + 20000 \times \frac{10}{100} + 50000 \times \frac{18}{100} + 30000$$

$$\times \left(\frac{16}{100} + 50000 \times \frac{22}{100} \right)$$

$$= 4800 + 2000 + 9000 + 4800 + 11000 = 31600$$

$$\therefore \text{Average} = \frac{31600}{5} = 6320$$

13. 4; Total number of female population who watches

$$\text{Breaking Bad} = \frac{40000 \times 20}{100} = 8000$$

Total number of female population

$$= 40000 \times \frac{3}{8} = 15000$$

$$\text{Reqd \%} = \frac{8000}{15000} \times 100 = \frac{160}{3} = 53 \frac{1}{3}\%$$

14. 3; Total number of people in City R watching Mentalist

$$= \frac{50000 \times 16}{100} + \frac{50000 \times 22}{100} = 8000 + 11000 = 19000$$

Total number of people in City T watching Mentalist

$$= \frac{50000 \times 15}{100} + \frac{50000 \times 20}{100} = 7500 + 10000 = 17500$$

$$\therefore \text{Reqd \%} = \frac{19000 - 17500}{17500} \times 100$$

$$= \frac{1500 \times 100}{17500} = \frac{60}{7} = 8 \frac{4}{7}\% \text{ more}$$

15. 2; Total number of females who watch Breaking Bad in City Q and S together

$$= \frac{20000 \times 10}{100} + \frac{30000 \times 30}{100} = 2000 + 9000 = 11000$$

Total number of female who watch Mentalist in City Q

$$\text{and S together} = \frac{20000 \times 30}{100} + \frac{30000 \times 12}{100}$$

$$= 6000 + 3600 = 9600$$

$$\therefore \text{Reqd ratio} = 11000 : 9600 = 110 : 96 = 55 : 48$$

16. 3; Let the sum of money invested by Raghu be ` P.

Then,

$$\frac{P \times 12 \times 2}{100} + \left\{ P \left(1 + \frac{20}{100} \right)^2 - 1 \right\} = 11016$$

$$\text{or, } \frac{24P}{100} + P \left\{ \left(\frac{6}{5} \right)^2 - 1 \right\} = 11016$$

$$\text{or, } \frac{24P}{100} + \frac{11P}{25} = 11016 \quad \text{or, } \frac{24P + 44P}{100} = 11016$$

$$\text{or, } 68P = 11016 \times 100$$

$$\therefore P = \frac{11016 \times 100}{68} = 16200$$

17.5; Average number of male teachers

$$= \frac{40 + 30 + 40 + 70}{4} = \frac{180}{4} = 45$$

Average number of female teachers

$$= \frac{90 + 50 + 70 + 30}{4} = \frac{240}{4} = 60$$

$$\therefore \text{Difference} = 60 - 45 = 15$$

18.3; I $6x^2 + 41x + 63 = 0$

$$\text{or, } 6x^2 + 27x + 14x + 63 = 0$$

$$\text{or, } 3x(2x + 9) + 7(2x + 9) = 0$$

$$\text{or, } (3x + 7)(2x + 9) = 0$$

$$\therefore x = -\frac{3}{7}, -\frac{9}{2}$$

II $4y^2 + 8y + 3 = 0$

$$\text{or, } 4y^2 + 6y + 2y + 3 = 0$$

$$\text{or, } 2y(2y + 3) + 1(2y + 3) = 0$$

$$\text{or, } (2y + 1)(2y + 3) = 0$$

$$\therefore y = -\frac{1}{2}, -\frac{3}{2}$$

Hence $x < y$

19.5; I $x^2 + 10x + 24 = 0$

$$\text{or, } x^2 + 6x + 4x + 24 = 0$$

$$\text{or, } x(x + 6) + 4(x + 6) = 0$$

$$\text{or, } (x + 4)(x + 6) = 0$$

$$\therefore x = -4, -6$$

II $4y^2 - 17y + 18 = 0$

$$\text{or, } 4y^2 - 9y - 8y + 18 = 0$$

$$\text{or, } 4y(y - 2) - 9(y - 2) = 0$$

$$\text{or, } (4y - 9)(y - 2) = 0$$

$$\therefore y = \frac{9}{4}, 2$$

Hence $x < y$

20.3; I $24x^2 + 38x + 15 = 0$

$$\text{or, } 24x^2 + 20x + 18x + 15 = 0$$

$$\text{or, } 4x(6x + 5) + 3(6x + 5) = 0$$

$$\text{or, } (4x + 3)(6x + 5) = 0$$

$$\therefore x = -\frac{3}{4}, -\frac{5}{6}$$

II $12y^2 + 28y + 15 = 0$

$$\text{or, } 12y^2 + 18y + 10y + 15 = 0$$

$$\text{or, } 6y(2y + 3) + 5(2y + 3) = 0$$

$$\text{or, } (6y + 5)(2y + 3) = 0$$

$$\therefore y = -\frac{5}{6}, -\frac{3}{2}$$

Hence $x \geq y$

21.4; I $3x^2 - 20x - 32 = 0$

$$\text{or, } 3x^2 - 12x - 8x - 32 = 0$$

$$\text{or, } 3x(x - 4) - 8(x - 4) = 0$$

$$\text{or, } (3x - 8)(x - 4) = 0$$

$$\therefore x = \frac{8}{3}, 4$$

II $2y^2 - 3y - 20 = 0$

$$\text{or, } 2y^2 - 8y + 5y - 20 = 0$$

$$\text{or, } 2y(y - 4) + 5(y - 4) = 0$$

$$\text{or, } (2y + 5)(y - 4) = 0$$

$$\therefore y = 4, -\frac{5}{2}$$

Hence no relationship can be established.

22.4; I $x^2 - 20x + 91 = 0$

$$\text{or, } x^2 - 13x - 7x + 91 = 0$$

$$\text{or, } x(x - 13) - 7(x - 13) = 0$$

$$\text{or, } (x - 7)(x - 13) = 0$$

$$x = 13, 7$$

II $y^2 - 32y + 247 = 0$

$$\text{or, } y^2 - 19y - 13y + 247 = 0$$

$$\text{or, } y(y - 19) - 13(y - 19) = 0$$

$$\text{or, } (y - 13)(y - 19) = 0$$

$$y = 13, 19$$

Hence $x \leq y$

23.4; GH = 14cm

$$JG = \sqrt{(GH)^2 - (HJ)^2} = \sqrt{196 - 49} = \sqrt{147} = 7\sqrt{3} \text{ cm}$$

$$\text{Area of the triangle GHJ} = \frac{1}{2} \times 7\sqrt{3} \times 7 = \frac{49\sqrt{3}}{2} \text{ cm}^2$$

Area of the shaded portion = Area of the triangle GHJ + Area GLK

(\because GLK \approx GHJ)

$$= 2 \times \text{Area of triangle GHJ} = 49\sqrt{3} \text{ cm}^2$$

24.4; Total number of novels sold by Store E

$$= \frac{10 \times 63000}{100} = 6300$$

Total number of Horror novels sold by Store C

$$= \frac{63000 \times 20}{100} - \frac{36000 \times 24}{100} = 12600 - 8640 = 3960$$

And total number of Horror novels sold by Store F

$$= \frac{63000 \times 8}{100} - \frac{36000 \times 12}{100} = 5040 - 4320 = 720$$

$$\therefore \text{Reqd ratio} = 6300 : 3960 + 720$$

$$= 6300 : 4680 = 630 : 468 = 35 : 26$$

25.2; Total number of Horror novels sold by B, C, E and F together

$$= \left(\frac{63000 \times 18}{100} - \frac{36000 \times 20}{100} \right) +$$

$$\left(\frac{63000 \times 10}{100} - \frac{36000 \times 8}{100} \right) +$$

$$\left(\frac{63000 \times 8}{100} - \frac{36000 \times 12}{100} \right)$$

$$= (630 \times 18 - 360 \times 20) + (630 \times 20 - 360 \times 24) + (630 \times 10 - 360 \times 8) + (630 \times 8 - 360 \times 12) = (11340 - 7200) + (12600 - 8640) + (6300 - 2880) + (5040 - 4320)$$

$$= 4140 + 3960 + 3420 + 720 = 12240$$

$$\therefore \text{Reqd average} = \frac{12240}{4} = 3060$$

26.4; Reqd central angle = $\frac{18}{100} \times 360 = 18 \times 3.6 = 64.8^\circ$

27.2; Number of novels sold by Store F = $\frac{63000 \times 8}{100} = 5040$

Number of Romantic novels sold by B and G together

$$= \frac{36000 \times (20 + 10)}{100} = 360 \times 30 = 10800$$

$$\therefore \text{Reqd \%} = \frac{10800 - 5040}{10800} \times 100$$

$$= \frac{5760 \times 100}{10800} = 53 \frac{1}{3} \%$$

28.4; Total number of Romantic novels sold by Store A, D and G together

$$= \frac{18 + 8 + 10}{100} \times 36000 = 36 \times 360 = 12960$$

Total number of Horror novels sold by Store A, D and G together

$$= \left(\frac{15 \times 63000}{100} - \frac{18 \times 36000}{100} \right) +$$

$$\left(\frac{16 \times 63000}{100} - \frac{8 \times 36000}{100} \right) +$$

$$\left(\frac{13 \times 63000}{100} - \frac{10 \times 36000}{100} \right)$$

$$= (15 \times 630 - 18 \times 360) + (16 \times 630 - 8 \times 360) + (13 \times 630 - 10 \times 360)$$

$$= (9450 - 6480) + (10080 - 2880) + (8190 - 3600)$$

$$= 2970 + 7200 + 4590 = 14760$$

$$\therefore \text{Difference} = 14760 - 12960 = 1800$$

29.5; Ratio of profits among A, B and C

$$= (42000 \times 4 + 30000 \times 6) : (30000 \times 4 + 24000 \times 6) : (28000 \times 4 + 20000 \times 6)$$

$$= (168000 + 180000) : (120000 + 144000) :$$

$$(112000 + 120000) = 348000 : 264000 : 232000$$

$$= 348 : 264 : 232$$

$$\text{Hence, C's share} = \frac{46420}{844} \times 232 = 12760$$

(30-34):

Organisation	Male	Female
HR	108	272
Marketing	315	160
Finance	270	144
Administration	90	224
Manufacturing	117	0
Total	900	800

30.3; Finance = 297

HR = 108

Administration = 108

Marketing = 315

Manufacturing = 140

Total number of male employees = 968

Increase in the no. of males in the organisation

$$= 968 - 900 = 68$$

$$\therefore \text{Reqd \%} = \frac{68}{900} \times 100 = 7 \frac{5}{9} \%$$

31.1; Total number of male employees in Marketing and Finance department

$$= 315 + 270 = 585$$

Total no. of employees in Marketing and Finance department

$$= 315 + 160 + 270 + 144 = 889$$

$$\therefore \text{Reqd \%} = \frac{585}{889} \times 100 = 65.80 \approx 66\%$$

32.2; Number of male employees in Administration department after transfer of 26 males from HR

$$= 90 + 26 = 116$$

Number of female employees in HR = 272 + 28 = 300

Number of female employees in Administration department = 224 - 28 = 196

$$\therefore \text{Reqd ratio} = 116 : 196 = 29 : 49$$

33.3; Average

$$= \frac{315 + 160 + 117 + 0 + 90 + 224}{3} = \frac{906}{3} = 302$$

34.2; Let the no. of employees who left the job be x.

$$\text{Then, } \frac{270 - x}{144 - x} = \frac{40}{19}$$

$$\text{or, } 270 \times 19 - 19x = 144 \times 40 - 40x$$

$$\text{or, } 21x = 144 \times 40 - 270 \times 19$$

$$= 5760 - 5130 = 630$$

$$\therefore x = \frac{630}{21} = 30$$

Hence total number of employees who left the job

$$= 2x = 2 \times 30 = 60$$

35.3; Let the speed of the stream be y.

Then from formula Distance

$$= \frac{(x^2 - y^2) \times t}{2y}$$

Here $x = 14$ kmph (Speed of boat)

$$\text{Now, } 28 = \frac{196 - y^2}{2y} \times \frac{35}{60}$$

$$\text{or, } 28 \times 2y = (196 - y^2) \times \frac{7}{12}$$

$$\text{or, } 96y = 196 - y^2$$

$$\text{or, } y^2 + 96y - 196 = 0$$

$$\text{or, } y^2 + 98y - 2y - 196 = 0$$

$$\text{or, } y(y + 98) - 2(y + 98) = 0$$

$$\text{or, } (y - 2)(y + 98) = 0$$

$$\therefore y = 2, -98 \text{ (Negative value)}$$

(Discard negative value)

Hence $y = 2$ kmph

36. 1; The series is $+2^2, +4^2, +6^2, +8^2, +10^2, \dots$ Hence there should be 161 in place of 181.

37. 5; The series is $+14, +28, +56, +112, +224, +448, \dots$ Hence there should be 450 in place of 496.

38. 5; The series is $\times 1 + 5.5, \times 2 + 5.5, \times 3 + 5.5, \times 4 + 5.5, \times 5 + 5.5, \times 6 + 5.5, \times 7 + 5.5.$

$$\text{ie } 15 \times 1 + 5.5 = 20.5, 20.5 \times 2 + 5.5 = 46.5, 46.5 \times 3 + 5.5 = 145, 145 \times 4 + 5.5 = 585.5, 585.5 \times 5 + 5.5 = 2933, 2933 \times 6 + 5.5 = 17603.5,$$

Hence there should be 20.5 in place of 21.5.

39. 4; The series is $\times 1 + 1^2, \times 2 + 2^2, \times 3 + 3^2, \times 4 + 4^2, \times 5 + 5^2, \times 6 + 6^2, \dots$

$$\text{ie } 5 \times 1 + 1^2 = 6, 6 \times 2 + 2^2 = 16, 16 \times 3 + 3^2 = 57, 57 \times 4 + 4^2 = 244, 244 \times 5 + 5^2 = 1245, 1245 \times 6 + 6^2 = 7506,$$

Hence there should be 244 in place of 246.

40. 2; The series is $+11, +33, +99, +297, +891, +2673,$

$$\text{ie } 2 + 11 = 13, 13 + 33 = 46, 46 + 99 = 145, 145 + 297 = 442, 442 + 891 = 1333,$$

$$1333 + 2673 = 4006, \text{ Hence there should be 442 in place of 452.}$$

41. 2; **Initially**

Milk in Vessel A = 40 lit

Water in Vessel B = 22 lit

After first operation:

Milk in Vessel A = $40 - 8 = 32$ lit

Water in Vessel B = 22 lit

Milk in Vessel B = 8 lit

Mixture in Vessel B = $22 + 8 = 30$ lit

After second operation (when 6 lit or $\frac{6}{30} = \frac{1}{5}$ of the

mixture is taken out from B, it means $\frac{22}{5}$ lit of water

and $\frac{8}{5}$ lit of milk is taken out):

$$\text{Milk in Vessel A} = 32 + \frac{8}{5} = \frac{168}{5} \text{ lit}$$

$$\text{Water in Vessel B} = 22 - \frac{22}{5} = \frac{88}{5} \text{ lit}$$

$$\therefore \text{Reqd ratio} = \frac{168}{5} : \frac{88}{5} = 21 : 11$$

42. 1; Relative speed = $93 + 51 = 144 \times \frac{5}{18} = 40$ m/s

Total length of the two trains = $40 \times 24 = 960$ metres

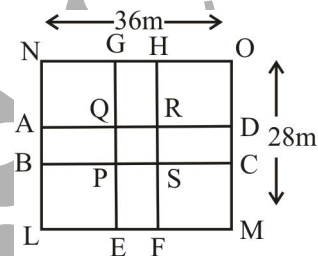
$$\therefore \text{Length of the first train} = 960 \times \frac{2}{3} = 640\text{m}$$

Let the length of the bridge be x m.

$$\therefore 640 + x = 93 \times \frac{5}{18} \times 66$$

Solving, we get $x = 1065$

43. 5;



$$\text{Area of rectangular plot LMNO} = 36 \times 28 = 1008\text{m}^2$$

$$\text{Area of paths} = \text{Area of ABCD} + \text{Area of EFGH} - \text{Area of PQRS} = (36 \times 5 + 28 \times 5) - 5 \times 5 = 180 + 140 - 25 = 295\text{m}^2$$

Area of rectangular plot excluding the area covered by roads = $1008 - 295 = 713$

Now, total cost of gravelling the plot

$$= 713 \times 3.60 = 2566.8$$

44. 1; Total number of girls studying IT Engineering from College B, C and D together = $350 + 260 + 325 = 935$

Total number of girls studying Electronics Engineering from B, C and D together = $285 + 225 + 255 = 765$

$$\therefore \text{Reqd \%} = \frac{935 - 765}{765} \times 100 = \frac{170}{765} \times 100$$

$$= 22 \frac{2}{9}$$

45. 1; The number of girls in College C studying Electronics Engineering = 225

Total number of girls in College C = $225 + 260 = 485$

$$\therefore \text{Reqd \%} = \frac{225}{485} \times 100 = 46.39 \approx 46\%$$

46. 2; Total number of flats booked in Aurangabad in 2005

$$= \frac{460 \times 110}{100} + \frac{520 \times 120}{100} + \frac{340 \times 115}{100}$$

$$= 506 + 624 + 391 = 1521$$

47. 2; Total number of LIG flats booked in Chandigarh = 400

No. of flats booked by the Financial Institution

$$= \frac{400 \times 35}{100} = 140$$

$$\therefore \text{Remaining flats} = 400 - 140 = 260$$

Now, number of LIG flats booked by officers from the

$$\text{software company} = \frac{260 \times 6}{13} = 120$$

48. 1; Total number of MIG flats in Mangalore, Baroda and Nagpur = 460 + 240 + 420 = 1120

Total number of LIG flats booked in Mangalore, Baroda and Nagpur = 200 + 320 + 300 = 820

$$\therefore \text{Reqd \%} = \frac{1120 - 820}{820} \times 100 = \frac{300}{820} \times 100$$

$$= 36.58 \approx 37\%$$

49. 2; Total number of MIG flats booked in Allahabad, Mangalore, Nagpur and Aurangabad

$$= 440 + 460 + 420 + 460 = 1780$$

Total number of LIG flats booked in Allahabad, Mangalore, Nagpur and Aurangabad

$$= 280 + 200 + 300 + 520 = 1300$$

$$\therefore \text{Difference} = 1780 - 1300 = 480$$

50. 1; Ratio = $\frac{440 + 360 + 280}{240 + 420 + 320} = \frac{1080}{980} = \frac{108}{98} = 54 : 49$

51. 3; **From I.** Position of Y = 1st from left

\therefore Position of K = 1 + 5 + 1 = 7th from left

\therefore Position of R = 7 + 6 + 1 = 14th from left

Now, L may be either on the left or on the right of R.

Hence position of L = 14 - 4 - 1 = 9th from left

or 14 + 4 + 1 = 19th from left

Hence I alone is not sufficient.

From II. Position of J = 10th from left

Position of I = 10 - 2 - 1 = 7th from left

or, 10 + 2 + 1 = 13th from left

But position of K = 10 - 3 = 7th from left.

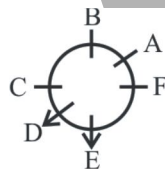
Hence I must be 13th from left.

\therefore Position of L = 13 + 5 + 1 = 19th from left.

\therefore No. of persons between L and K

= 19 - 7 - 1 = 11. Hence II alone is sufficient.

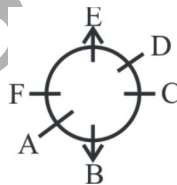
52. 5; **From I.**



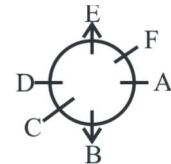
Hence A is second to the left of E.

Thus, I alone is sufficient to answer the question.

From II. Possibility (i)

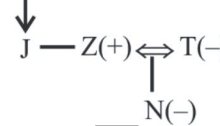


Possibility (ii)



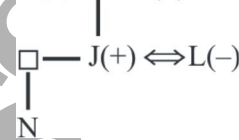
Thus A may be second to the left or second to the right of E. Hence II alone is not sufficient.

53. 3; **From I.** X(-)



Hence X is grandmother of N.

From II. X(-) \leftrightarrow Y(+)



Hence X is grandmother of N.

54. 3; **From I.** $_ > _ > _ > T > _ > _ \dots$ (i)

$> S > R \dots$ (ii)

$_ > _ > _ > V > W \dots$ (iii)

Combining, we get $U > S > R > T > V > W$

Hence I alone is sufficient.

From II. $_ > _ > R > _ > _ > \dots$ (i)

$R > T > V > W \dots$ (ii)

$U > S \dots$ (iii)

Again, we get $U > S > R > T > V > W$

Hence II alone is also sufficient.

55. 2; **From I.**

Person	Floor
R/O	6
M	5
Q	4
P	3
N	2
R/O	1

Hence I alone is not sufficient to answer the question.

From II.

Person	Floor
O	6
Q/M	5
Q/M	4
P	3
N	2
R	1

Hence R lives on the lowermost floor. Thus II alone is sufficient to answer the question.

56. 1; All houses are dolls (A) + All dolls are baskets (A) = A + A = A = All houses are baskets (A). Hence conclusion 4) follows.
 Again, No toy is a doll (E) + All dolls are baskets (A) = E + A = O* = Some baskets are not toys. Hence 1) does not follow.
 Again, All guns are toys (A) + No toy is a doll (A) = A + E = E = No gun is a doll (E) → conversion → No doll is a gun (E). Hence 5) follows.
 Now, All houses are dolls (A) + No doll is a gun (E) = A + E = E = No house is a gun (E) → conversion → No gun is a house (E). Hence 2) follows. The possibility in 3) exists on combining statements second, third and fourth. Hence conclusion 3) follows.
57. 3; All reasons are arguments (A) + All arguments are fights (A) = A + A = A = All reasons are fights (A). Hence 4) follows. Again, All arguments are fights (A) + No fight is a discussion (E) = A + E = E = No argument is a discussion (E) → conversion → 2) follows.
 Now, All reasons are fights (A) + No fight is a discussion (E) = A + E = E = No reason is a discussion (E). Hence 5) follows.
 Again, Some logics are reasons (I) + No reason is a discussion (E) = I + E = O = Some logics are not discussions (O). Thus, the possibility in 1) exists but in 3) does not exist. Hence conclusion 3) does not follow.
58. 4; All mentions are references (A) + All references are mails (A) = All mentions are mails (A) → conversion → Some mails are mentions (I). Hence 5) follows.
 Again, All comments are mentions (A) + All mentions are references (A) = A + A = All comments are references (A) + All references are mails (A) = A + A = A = All comments are mails. Hence 2) follows.
 Again, All references are mails (A) + No mail is a declaration (E) = A + E = E = No reference is a declaration

- (E). Hence 1) follows.
 Now, All comments are mails (A) + No mail is a declaration (E) = A + E = E = No comment is a declaration (E). Hence 4) does not follow.
 Now, All mentions are mails (A) + No mail is a declaration (E) = A + E = E = No mention is a declaration (E). Hence 3) follows.
59. 2; All flashes are instances (A) + No instance is an hour (E) = A + E = E = No flash is an hour (E) → conversion → No hour is a flash. Hence 3) follows.
 From statements (First + Third), conclusion 4) follows. From statements (Second + Third) conclusion 5) follows.
 Now, from statements (Second + Third + Fourth) the possibility in 1) exists. But conclusion 2) does not follow.
60. 1; Combining the first two statements and then converting the conclusion, 4) follows. Similarly, 5) follows from the second and the third statements. The possibilities in 2) and 3) cannot be ruled out.
 Let us check 1). All circles are spheres + All spheres are rectangles + No rectangle is a pyramid = (A + A) + E = A + E = E = No circle is a pyramid. Hence 1) does not follow.
61. 4; From statements (Second + Third + First) conclusion 1) follows.
 Again, from (Second + Third + Fourth) conclusion 2) follows.
 From statements (First + Second), the possibility in 3) exists. Hence 3) follows.
 From statements (Third + Fourth), conclusion 5) follows.
 Again, All motels are apartments (A) + All apartments are inns (A) = A + A = A = All motels are inns. Hence 4) does not follow.
62. 1; All other arguments point out how chocolate leads to health benefits.

(63-68):

Person	Movie							Subject						
	Frozen	Finding Nemo	Rio	Up	Lion King	Shrek	Cars	Civics	History	English	Geography	Chemistry	Physics	Biology
L	×	×	√	×	×	×	×	×	×	√	×	×	×	×
M	√	×	×	×	×	×	×	×	×	×	×	×	√	×
N	×	×	×	√	×	×	×	×	×	×	√	×	×	×
O	×	×	×	×	√	×	×	×	×	×	×	√	×	×
P	×	√	×	×	×	×	×	×	√	×	×	×	×	×
Q	×	×	×	×	×	√	×	√	×	×	×	×	×	×
R	×	×	×	×	×	×	√	×	×	×	×	×	×	√

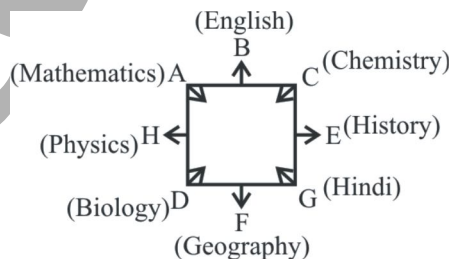
Summary

Person	Movie	Subject
L	Rio	English
M	Frozen	Physics
N	Up	Geography
O	Lion King	Chemistry
P	Finding Nemo	History
Q	Shrek	Civics
R	Cars	Biology

63. 4; History
 64. 5 65. 3 66. 4 67. 4 68. 1
 69. 5; Discrimination is not desirable in a school. Hence wearing ties should be discontinued. Thus statement A strengthens the argument. Statement B is irrelevant. It shifts the focus of the question.
 70. 1; **Given statement:**
 $S > M \geq D > H \leq R \leq T < W$
 Thus, $S > H$ is true. Hence I is true. Again, $H < W$ or $W > H$ is true. Hence II is true. $R < W$ is true. Hence III is also true. But we can't compare M and T. Hence IV is not true. Hence only I, II and III are true.
 71. 2; **Given statements:**
 $M > U > L \leq N$... (i)
 $L \geq Y > A$... (ii)
 Combining (i) and (ii), we get $M > U > L \geq Y > A$ and $A < Y \leq L \leq N$
 Thus, $Y \leq N$ is true.
 Hence $Y < N$ may be true.
 And $Y = N$ may be true.
 So, conclusion I and III make a complementary pair. Thus, either I or III is true.
 Again, we can't compare M and N. Hence II is not true. But $M > A$ is true. Hence IV is true. Hence only IV and either I or III are true.
 72. 4; **Given statements:**
 $J \geq A > D = E$... (i)
 $L < A < M$... (ii)
 Combining (i) and (ii), we get $M > A > D = E$... (iii)
 $J \geq A < M$... (iv)
 $J \geq A > L$... (v)
 $L < A > D$... (vi)
 Thus, from (iv), we can't compare J and M. Hence I is not true.
 From (v), $J > L$ is true. Hence II is true.
 Again, from (vi), we can't compare D and L. Hence III is not true.
 Now, from (iii), $M > E$ or $E < M$ is true. Hence IV is true. Thus, only II and IV are true.

73. 4; **Given statements:**
 $Y > F \leq O \leq P$... (i)
 $F \geq U < T$... (ii)
 Thus, from (i) we can't compare Y and P. Hence I is not true. Again, from (ii) we can't compare F and T. So, II is not true.
 $T > U \leq F \leq O \leq P$
 Thus, we can't compare O and T. Hence III is not true. Again, $U \leq P$ is true. So, IV ($P < U$) is not true. Hence none is true.
 74. 2; **Given statement:**
 $M > H \leq Y \leq R < U = Z \geq E$
 Thus, we can't compare M and R. Hence I is not true. Again, $H < Z$ or $Z > H$ is true. Hence IV is true. And $R < Z$ or $Z > R$ is true. Hence II ($Z \leq R$) is not true. We can't compare R and E. Hence III is not true.
 75. 3; **Given statement:**
 $P > Q \leq C \leq B = M > D$
 Thus, $Q \leq M$ or $M \geq Q$ is true. So, $M > Q$ may be true. And $M = Q$ may be true. So, conclusion I and III make a complementary pair.
 Again, we can't compare D and Q, or C and D. So II and IV are not true.

(76–82):



76. 1 77. 3 78. 5 79. 5 80. 5 81. 1 82. 2
 83. 5; Note that the concern is due to "very high concentration". But if the amount of repellent used does not matter, as stated in F, the concern is not genuine.
 84. 1; Profit motive often leads companies to cross limits. Hence D follows. But it may also be due to a zeal for proving its efficacy. Hence C follows.
 85. 4; Note the "if ..." clause.
 86. 2; This is the most logical way to prevent further cases of food poisoning at the hospital.
 (87–92):
 In every step a number is arranged on the left end and a word on the right end. We begin with the largest number, then the second largest, and so on, till all the numbers are arranged in ascending order. Words are arranged in the alphabetical order.
Input: 29 cone 42 pale fear 39 67 fame 32 weld 77 turn
Step I. 77 29 42 pale fear 39 67 fame 32 weld turn cone

Step II. 67 77 29 42 pale fear 39 32 weld turn cone fame

Step III. 42 67 77 29 pale 39 32 weld turn cone fame fear

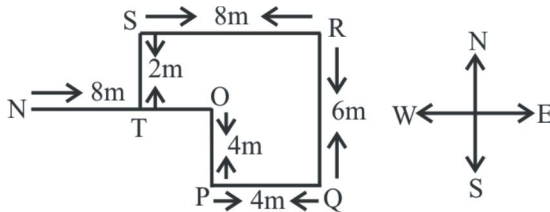
Step IV. 39 42 67 77 29 32 weld turn cone fame fear pale

Step V. 32 39 42 67 77 29 weld cone fame fear pale turn

Step VI. 29 32 39 42 67 77 cone fame fear pale turn weld

87.1 88.3 89.5 90.1 91.3 92.2

(93-94):



93. 1; $NT = 8 + 4 - 8 = 4m$; T is to the east.
Hence point T is 4m to the east of Point N.
94. 2; Now, $EQ = SR = 8m$
($SR \parallel EQ$)
Because point E, P and Q lie on the same line.
95. 4; If private organisations are retaining their employees, it is good news for the latter. This is a step ahead towards job security.

96. 1; People feel that the govt has not taken any measures. But 1) categorically states that the govt has taken measures in this regard.

(97-100):

			E	B	A	D		
			↓	↑	↓	↓	↑	↑
			G	F		H	C	
97.2	98.5	99.1	100.2	101.1	102.1	103.3		
104.1	105.3	106.2	107.4	108.4	109.4	110.1		
111.1	112.5	113.4	114.3	115.3				

(116-120): 1CAFEBD

116.3	117.5	118.4	119.3	120.1	121.4	122.3
123.1	124.2	125.1	126.1	127.1	128.1	129.5
130.2	131.4	132.2	133.3	134.2	135.1	136.2
137.1	138.5	139.4	140.5	141.5	142.4	143.3
144.3	145.4	146.4	147.2	148.5	149.2	150.5
151.4	152.4	153.2	154.2	155.4	156.5	157.2
158.3	159.2	160.2	161.2	162.1	163.3	164.4
165.4	166.3	167.2	168.4	169.5	170.5	171.2
172.4	173.3	174.1	175.4	176.3	177.3	178.3
179.3	180.3	181.2	182.5	183.3	184.4	185.4
186.1	187.3	188.1	189.2	190.3	191.5	192.2
193.3	194.2	195.1	196.5	197.1	198.1	199.3
200.4						

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