

## PART - I : REASONING

**Directions (1-5) :** Study the following information carefully and answer the given questions.

Eleven boxes A, B, C, D, E, F, G, H, I, J, K are kept one above the other. Box G is kept at fifth position from the top. Two boxes are kept between G and H. Box D is kept just above box H. There are as many boxes above box D as below box B. Five boxes are kept between box F and box K, which is kept at one of the positions below box G. Box A is kept at one of the positions above box F. Only one box is kept between Box G and Box C. Box I is kept above box E but not just above. Box E is not kept immediately above or immediately below box C.

1. What is the position of box I ?  
(1) 8th from the bottom  
(2) 7th from the top  
(3) 3rd from the top  
(4) 6th from the bottom  
(5) None of the above
2. How many boxes are kept between box E and Box H ?  
(1) Seven (2) Six  
(3) Five (4) Four  
(5) Eight
3. Which among the following statement is true regarding box J ?  
(1) It is 7th from the bottom  
(2) Box K is placed above box J  
(3) Only two boxes are kept between box B and box J  
(4) It is kept just below box H  
(5) All are true
4. Which of the following represents the boxes kept between boxes A and I ?  
(1) C, B (2) A, K  
(3) F, G (4) J, D  
(5) None of these

5. Which of the following box is kept just above box B ?  
(1) C (2) K (3) F  
(4) D (5) None of these

**Directions (6-8) :** Study the following information carefully and answer the given questions.

Point B is 14 m east of point A.  
Point C is 9 m north of point B.  
Point D is 12 m east of point C.  
Point E is 15 m south of point D.  
Point F is 30 m west of point E.  
Point G is 10 m north of point F.  
Point H is 18 m east of point G.

6. If point X is 6 m south of point A then which point is at shortest distance from point X ?  
(1) E (2) A (3) F  
(4) B (5) G
7. What is the distance of point C from point H ?  
(1) 9 m (2) 5 m (3) 4 m  
(4) 6 m (5) 7 m
8. Point B is in which direction with respect to point F ?  
(1) South (2) South-east  
(3) North (4) North-east  
(5) North-west

**Directions (9-13) :** Study the following information carefully and answer the given questions.

Eight persons A, B, C, D, E, F, G, H are sitting around a circular table such that five of them are facing towards the centre and the rest are facing away from the centre. Three persons are sitting between F and H, who is facing centre. C is 2nd to the right of F and faces opposite direction to F. A sits 3rd to the left of C. G is one of the neighbour of E. Two persons sit between G and B, who is not neighbour of H. G does not face C. G and A face same direction but opposite to F.

9. What is the position of E with respect to A ?  
(1) Immediate right  
(2) Fifth to the left  
(3) Second to the right  
(4) Second to the left  
(5) None of the above
10. How many persons are sitting between C and H, when counted from the left of C ?  
(1) One (2) Two  
(3) Three (4) Four  
(5) None
11. Four of the five are alike in a certain way, which among the following does not belong to that group ?  
(1) C (2) B  
(3) F (4) D  
(5) E
12. Which of the following represents the immediate neighbour of G ?  
(1) C (2) B  
(3) F (4) D  
(5) A
13. Which of the following is not true regarding F ?  
(1) It faces towards the centre.  
(2) E is to the immediate left of F.  
(3) Two persons sit between F and D, when counted from the right to D.  
(4) All are true  
(5) No one sits between F and B

**Directions (14-18) :** Study the following information carefully and answer the given questions.

Certain number of persons are sitting in a row facing north. M sits 4th to the right of S. Five persons sit between M and X. T sits at one of the positions left to S. The number of persons sitting between M and U are same as between S and T. Q is 2nd from



one of the extreme ends. Four persons sit between S and U. No one sits to the right of N, who is immediate right to P. X is 3rd left to P. Not more than two persons sit between Q and U.

14. How many persons are sitting in the row ?

- (1) 17      (2) 20      (3) 24  
(4) 26      (5) 27

15. How many persons are sitting between S and T ?

- (1) Seven      (2) Six  
(3) Five      (4) Four  
(5) Eight

16. What is the position of U from the left end ?

- (1) 6th      (2) 5th      (3) 4th  
(4) 2nd      (5) 3rd

17. How many persons are sitting between Q and M ?

- (1) Seven      (2) Eleven  
(3) Ten      (4) Nine  
(5) Eight

18. Which of the following represents the person sitting at extreme end ?

- (1) M      (2) U      (3) X  
(4) P      (5) T

19. If the second, fourth, seventh and eighth letter of the word "FRACTION" are combined to form a meaningful word, then what will be the 3rd letter from the left in the so formed word. If more than one meaningful word is formed then the answer is X, if no such word is formed then answer is Z ?

- (1) O      (2) X      (3) R  
(4) Z      (5) C

20. How many pair of digits have same number of digits between them in the number "573814269" as in the numeric series ?

- (1) Five      (2) Four  
(3) Six      (4) Three  
(5) More than six

**Directions (21-25):** Study the following information carefully and answer the given questions.

Movies of different duration released on different days starting from Monday to Friday (starting from Monday). Movie A was released on Tuesday. No movie released between A and the one which is of 75-minute

duration. Only one movie is released between the one which is of 75-minute duration and the one which is of 100-minute duration. No movie released between the one which is of 100 minute and B. Only one movie released after B. B released immediately after 100-minute duration movie. Movie C released immediately after the one which is of 130-minute duration. More than two movies released in between C and D. The movie which is of 90-minute duration released before E. One of movie was of 20 minutes more duration than E.

21. How many movies were released after E ?

- (1) One      (2) Two  
(3) None      (4) Three  
(5) More than three

22. Which of the following movie was of 150-minute duration ?

- (1) E  
(2) A  
(3) There is no such movie  
(4) C  
(5) D

23. What is the total duration of movie D and E together ?

- (1) 135      (2) 225  
(3) 165      (4) 175  
(5) 190

24. Which of the following statement is true regarding B ?

- (1) The movie released after B is of 120-minute duration  
(2) Two movies released in between A and B  
(3) Movie B is of 100-minute duration  
(4) Total duration of movie B and A is 225 minutes  
(5) Movie A released after B

25. Which of the following statement is true ?

- (1) The movie released before A is of 130-minute duration  
(2) Three movies released in between A and E  
(3) No movie released in between A and E  
(4) Total duration of movie C and A is 230 minutes  
(5) Movie C released immediately after E.

**Directions (26-28):** Study the following information carefully and answer the given questions.

F is the husband of G. K is the mother-in-law of G. H is the father of F. M is the mother of H. P is the mother of K and B.

26. If Y is the father of H, then how is Y related to M ?

- (1) Mother      (2) Father  
(3) Sister      (4) Brother  
(5) Husband

27. How is P related to F ?

- (1) Grandfather  
(2) Aunt  
(3) Mother  
(4) Grandmother  
(5) Wife

28. How is B related to H ?

- (1) Sister  
(2) Brother  
(3) Husband  
(4) Can't be determined  
(5) Wife

**Directions (29-31):** Study the following information carefully and answer the given questions.

There are six persons M, N, O, P, Q, R of different heights. N is shorter than M but taller than Q. Only two person are taller than M. R is taller than Q and O. Q is not the shortest. The one who is second shortest is 154 m. P is not the shortest person.

29. If M is 19 m taller than Q, then what is the height of M ?

- (1) 190 cm      (2) 181 cm  
(3) 175 cm      (4) 130 cm  
(5) 173 cm

30. If P is 181 cm than which of the following is true ?

- I. Only one person is taller than P.  
II. The difference between the heights of P and Q is 27 cm  
III. O is the shortest person.  
(1) Only I  
(2) Both I and II  
(3) All are true  
(4) Both II and III  
(5) Both I and III

31. How many persons are shorter than N ?

- (1) One      (2) Two  
(3) None      (4) Three  
(5) More than three



**Directions (32-35) :** In these questions three statements followed by two conclusions numbered I and II have been given. You have to take the given statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given conclusions logically follows from the given statements ?

**Give answer :**

- (1) If **only** conclusion I follows.
  - (2) If **only** conclusion II follows.
  - (3) If **both** conclusions I and II follow.
  - (4) If **neither** conclusion I **nor** II follows.
  - (5) If **either** conclusion I **or** II follows.
32. **Statements :** All Grills are Arrow. Some Hat are Grills. Some Cell are Arrow.  
**Conclusions** I. Some Cell are definitely not Grills.  
II. Some Hat can never be Arrow.
33. **Statements :** All Grills are Arrow. Some Hat are Grills. Some Cell are Arrow.  
**Conclusions** I. Some Hat are Arrow.  
II. Some Grills are Cell.
34. **Statements :** Some Door are Fan. No Door is Rose. No Fan is Shelf.  
**Conclusions** I. Some Fan can never be Rose.  
II. Some Roses are Shelf is a possibility.
35. **Statements :** Some Doors are Fan. No Door is Rose. No Fan is Shelf.  
**Conclusions** I. All Door are Shelf is a possibility.  
II. All Shelf can be Doors.

**Directions (36-40) :** Study the following information carefully and answer the given questions.

Fourteen persons are sitting in two parallel rows such that seven persons are sitting in each row. A, B, C, D, E, F, G are sitting in row-1 facing north while P, Q, R, S, T, U, V are sitting in row-2 facing south.

G sits third to the left of A and neither of them sits at an extreme end of the row. The one faces A sits immediate right to T. Only one person sits between T and Q. The one who faces Q sits third to the right of E. S sits to the immediate left of V. S neither faces G nor E. D is an immediate neighbour of the one who faces S. The one who faces C sits fifth to the left of P. B sits third to the left of F. U sits at one of position to the right of R.

36. Four of the following are alike in a certain way so form a group which of the following does not belong to that group ?  
(1) U (2) B (3) T  
(4) C (5) P
37. How many persons sits between F and C ?  
(1) One (2) Two (3) None  
(4) Three (5) More than three
38. Which of the following is not true regarding U ?  
(1) No one sits to the right of U.  
(2) U sits third to the right of Q,  
(3) P is an immediate neighbour of U.  
(4) E is an immediate neighbour of the one who faces U,  
(5) Only two persons sit between U and S.

39. What is the position of C with respect to A ?  
(1) Second to the left (2) Third to the right  
(3) Immediate right (4) Immediate left  
(5) Second to the right
40. What is the position of B with respect to D ?  
(1) Third to the left (2) Second to the left  
(3) Fourth to the left (4) Third to the right  
(5) Fifth to the right

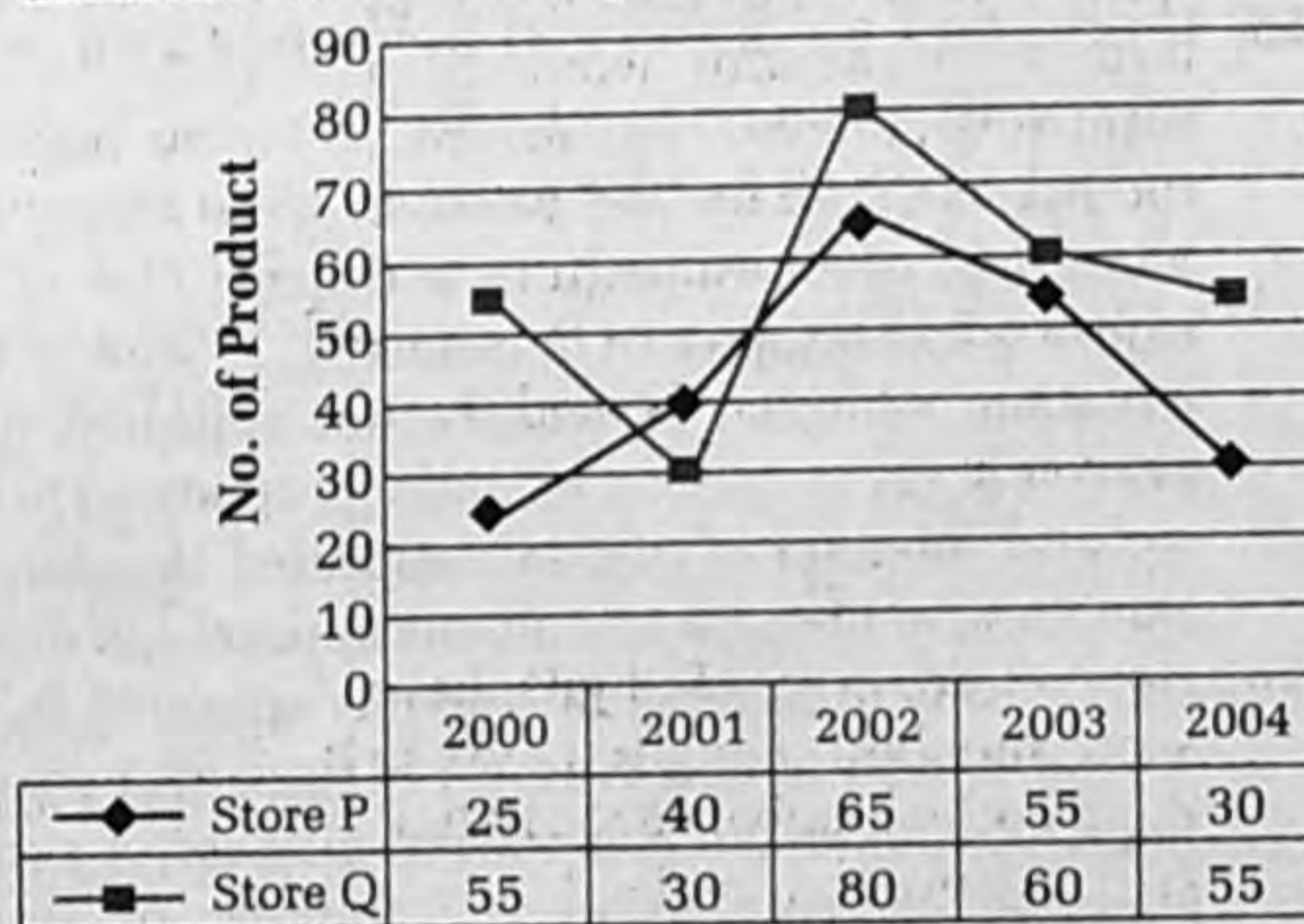
## PART - II : QUANTITATIVE APTITUDE

**Directions (41-45) :** Find the wrong number in the following number series ?

41. 1 3 7 15 31 64 127  
(1) 1 (2) 3 (3) 15  
(4) 64 (5) 127
42. 1 15 119 475 949 947 473  
(1) 947 (2) 475 (3) 15  
(4) 473 (5) 1
43. 250 260 291 314 340 370 405  
(1) 370 (2) 314 (3) 260  
(4) 405 (5) 250
44. 750 535 411 348 322 314 315  
(1) 315 (2) 750 (3) 411  
(4) 348 (5) 314
45. 2 7 27 107 427 1708 6827  
(1) 17 (2) 1708 (3) 2  
(4) 6827 (5) 7

**Directions (46-50) :** Study the line-graph carefully and answer the questions given below.

The total number of products for (kid + adult) in two different stores P and Q in five different years



46. What is the difference between total number of products in store P in year 2003 & 2004 together and total number of products in both stores in year 2000 ?  
(1) None of these (2) 10  
(3) 20 (4) 15  
(5) 5
47. If total products in both the stores in year 2006 is increased by 20% as compared to year 2004. Then find total number of products in year 2006 ?  
(1) 102 (2) None of these  
(3) 96 (4) 108  
(5) 92



48. What is the ratio of total products in store Q in year 2002 and 2003 together to total products in store Q in year 2000 ?  
 (1) 23 : 12 (2) 23 : 11  
 (3) 28 : 11 (4) None of these  
 (5) 27 : 13
49. What is the average number of products in all the years together in store P ?  
 (1) 48 (2) 43  
 (3) 57 (4) None of these  
 (5) 53
50. Total number of products in store P in year 2003 and in store Q in year 2004 together is what percent more/less than total number of products in store Q in year 2000 ?  
 (1) 150% (2) 40% (3) 125%  
 (4) 100% (5) 50%

**Directions (51-55) :** In these questions, two equations numbered I and II are given. You have to solve both the equations and

Give answer :

- (1) If  $x \geq y$  (2) If  $x > y$   
 (3) If  $x \leq y$  (4) If  $x < y$   
 (5) If  $x = y$  or relationship between  $x$  and  $y$  cannot be established

51. I.  $x^2 - 20x + 96 = 0$ ; II.  $y^2 = 64$   
 52. I.  $4x^2 - 21x + 20 = 0$ ; II.  $3y^2 - 19y + 30 = 0$   
 53. I.  $x^2 - 11x + 24 = 0$ ; II.  $y^2 - 12y + 27 = 0$   
 54. I.  $x^2 + 12x + 35 = 0$ ; II.  $5y^2 + 33y + 40 = 0$   
 55. I.  $4x^2 + 9x + 5 = 0$ ; II.  $3y^2 + 5y + 2 = 0$

**Directions (56-60) :** Study the following paragraph carefully and answer the questions given below.

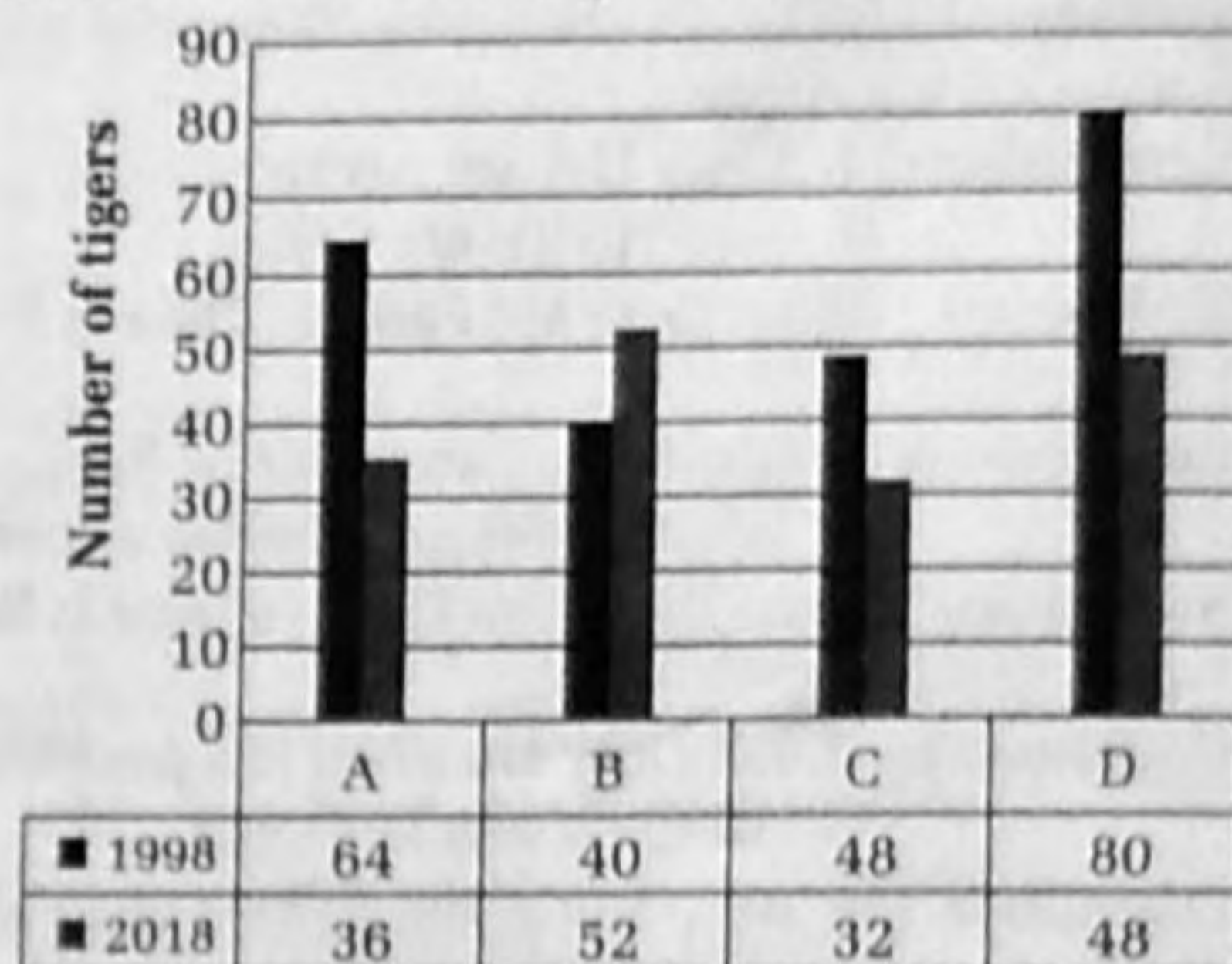
There are 1000 students in a college. Out of 1000 students some appeared in exams 'X', 'Y' and 'Z' while some not. Number of student not appeared in any exam is equal to number of students appeared in exam 'Z' only. Number of students appeared in exam 'Y' is 360. Ratio of number of students appeared in exam 'X' and 'Y' only to number of students appeared in exam 'Y' and 'Z' only is 2 : 3. Number of student appeared in exam 'X' and 'Z' both is half of number of students appeared in only exam 'Z'. Number of students appeared in exam 'X' only is 50% more than number of students appeared in 'Y' only. Number of students appeared in all the three exam is 4% of the total number of students in the college. Number of students appeared in 'Y' exam only is same as number of students appeared in 'Y' and 'Z' only.

56. How many students appeared in at least two exams ?  
 (1) 240 (2) 260 (3) 300  
 (4) 360 (5) 500
57. How many students appeared in two exams only ?  
 (1) 280 (2) 220 (3) 340  
 (4) 300 (5) 260

58. How many students appeared in at most two exams ?  
 (1) 240 (2) 260  
 (3) 300 (4) 500  
 (5) 760
59. How many students does not appeared in exam Y ?  
 (1) 440 (2) 360  
 (3) 540 (4) 640  
 (5) None of these
60. How many students have been appeared in exam X or in exam Z ?  
 (1) 240 (2) 360  
 (3) 500 (4) 680  
 (5) 760

**Directions (61-65) :** Study the bar graph carefully and answer the questions given below.

The number of tigers in different National Parks, i.e., A to D of a country in two different years



61. Number of tigers in National Park 'B' and 'C' together in 2018 is how much less more/less than Number of tigers in National Park 'A' and 'D' together in 1998 ?  
 (1) 40 (2) 44  
 (3) 52 (4) 60  
 (5) 72
62. Number of tigers in National Park 'D' in both years together is what percent of the Number of tigers in National Park 'C' in both years together ?  
 (1) 60% (2) 160%  
 (3) 140% (4) 120%  
 (5) 180%
63. Find the ratio between number of tigers in National Park 'A' in 2018 to number of tigers in National Park 'B' in 1998 ?  
 (1) 9 : 10 (2) 10 : 9  
 (3) 16 : 13 (4) 13 : 16  
 (5) 3 : 4
64. Number of tigers in National Park 'E' in 2018 is 40% more than number of tigers in National Park 'D' in 1998 while number of tigers in National Park 'E' in 1998 is 25% less than number of tigers in National Park 'C' in 2018. Find total number of tigers in National Park 'E' in 1998 and 2018 together ?  
 (1) 148 (2) 84  
 (3) 172 (4) 160  
 (5) 136



65. Average number of tigers in all National Park in 2018 is how much less/more than average number of tigers in all National Park in 1998 ?  
 (1) 14 (2) 16  
 (3) 18 (4) 20  
 (5) 22
66. The difference between downstream speed and upstream speed of boat is 6 km/h and boat travels 72 km from P to Q (downstream) in 4 hours. Then find the speed of boat in still water ?  
 (1) 15 km/h (2) 18 km/h  
 (3) 20 km/h (4) 16 km/h  
 (5) 24 km/h
67. In a vessel, there are two types of liquids A and B in the ratio of 5 : 9. 28 litre of the mixture is taken out and 2 litre of type B liquid is poured into it, the new ratio (A : B) thus formed is 1 : 2. Find the initial quantity of mixture in the vessel ?  
 (1) 84 litre (2) 42 litre  
 (3) 50 litre (4) 56 litre  
 (5) 70 litre
68. The average weight of 5 students in a class is 25.8 kg. When a new student joined them, the average weight is increased by 3.9 kg. Then find the approximate weight of the new student.  
 (1) 55 kg (2) 49 kg  
 (3) 42 kg (4) 44 kg  
 (5) 58 kg
69. A person has purchased two adjacent plots, one is in rectangular shape and other is in square shape and combined them to make a single new plot. The breadth of the rectangular plot is equal to the side of the square plot and the cost of fencing the new plot is ₹ 390 (₹ 5/m). Find the side of square if the length of the rectangular plot is 15 m.  
 (1) 10 m (2) 12 m  
 (3) 8 m (4) 9 m  
 (5) 6 m
70. A shopkeeper marked his article 50% above the cost price and gives a discount of 20% on it. If he had marked his article 75% above the cost price and gives a

- discount of 20% on it then find the earlier profit is what percent of the profit earned latter ?  
 (1) 50% (2) 60%  
 (3)  $33\frac{1}{3}\%$  (4) 40%  
 (5) 75%
71. A person invested two equal amounts in two different schemes. In first scheme, amount is invested at 8% p.a. on SI for T years and SI received is ₹ 2000/- while in second scheme, amount is invested at 10% p.a. for 2 years at CI and the compound interest received is ₹ 1050/-. Find the value of T.  
 (1) 4 years (2) 8 years  
 (3) 6 years (4) 5 years  
 (5) 3 years
72. Satish saves 20% of his monthly salary. And of the remaining salary  $\frac{1}{4}$ th and  $\frac{1}{2}$ nd he gives to his mother and sister respectively and the remaining salary he submits as his EMI for the payment of his car. If his annual EMI was ₹ 60,000/-, then find his monthly salary ?  
 (1) ₹ 40,000/- (2) ₹ 35,000/-  
 (3) ₹ 32,000/- (4) ₹ 30,000/-  
 (5) ₹ 25,000/-
73. The sum of four times of an amount 'x' and (x - 9.75) is ₹ 442/-. Find the approximate value of x.  
 (1) ₹ 85/- (2) ₹ 90/-  
 (3) ₹ 100/- (4) ₹ 110/-  
 (5) ₹ 75/-
74. A and B entered into a partnership by investing some amounts. The investment of A is twice of the investment of B. Another person C joined them after 4 months. At the end of a year, the profit share of A and C is equal. Then find the profit share of B is what percent of the profit share of C.  
 (1) 50%  
 (2)  $33\frac{1}{3}\%$   
 (3) 40%  
 (4) 60%  
 (5) 75%

75. The ratio of age of Ishu 8 years hence and that of Ahana 6 years hence is 5 : 6. The age of Ishu 10 years hence is equal to the age of Ahana 6 years hence. Then, find the present age of Ishu.  
 (1) 1.5 years (2) 2 years  
 (3) 3 years (4) 4 years  
 (5) 5 years
76. What is the difference between 20% of P and 20% of (P + 5000) ?  
 (1) 1500 (2) 1200  
 (3) 1000 (4) 2000  
 (5) 1600
77. The ratio of the diameter of base and height of a cylinder is 2 : 3. Find the radius of the cylinder if the approximate volume of cylinder is 3234.01 cm<sup>3</sup> ?  
 (1)  $\frac{21}{2}$  cm (2)  $\frac{7}{2}$  cm  
 (3) 21 cm (4) 7 cm  
 (5) 14 cm
78. A train of some length passes the platform of length 524 m in 55 seconds. Find the length of train if the speed of train is 72 km/h.  
 (1) 476 m  
 (2) None of these  
 (3) 428 m  
 (4) 526 m  
 (5) 576 m
79. Efficiency of B is two times more than efficiency of A. Both started working alternatively, starting with B and completed the work in total 37 days. If C alone complete the same work in 50 days then find in how many days A and C together will complete the work ?  
 (1) 24 days (2) 30 days  
 (3) 36 days (4) 48 days  
 (5) 18 days
80. 7 men and 6 women together can complete a piece of work in 8 days and work done by a women in one day is half the work done by a man in one day. If 8 men and 4 women started working and after 3 days 4 men left the work and 4 new women joined then, in how many more days will the work be completed ?  
 (1) 7 days  
 (2) 6 days  
 (3) 5.25 days  
 (4) 6.25 days  
 (5) 8.14 days