## PART – I : QUANTITATIVE APTITUDE

1. A and B started a business with different investments. At the start of 2nd, 3rd and 4th quarter each, A and B invested additional amounts of ₹ 300/- and ₹ 200/- respectively and in the 4th quarter, amount invested be them became equal. If annual profit was divided in the ratio of 5 : 6 respectively, what was the investment with which A started the business ?
(1) 600 (2) 400 (3) 300
(4) 800 (5) 200

2. The sum of the volumes of a right circular cone (N) and a right circular cylinder (L), both of height 18 cm each, is approximately 981 $cm^3$. If N's radius is half of L's radius, what is the approximate value of the area of L's base ? (in $cm^2$)
(1) 25 (2) 50 (3) 200
(4) 100 (5) None of those given as options

3. A (with an investment of ₹ 899/-) and B started a business. 8 months from the start of the business, B left and C joined with an amount double of that of B. If A's share out of the total annual profit of ₹ 14005/- was ₹ 5039.5, what was C's approximate investment ? (in ₹)
(1) 3000 (2) 1600 (3) 1200
(4) 2400 (5) 2000

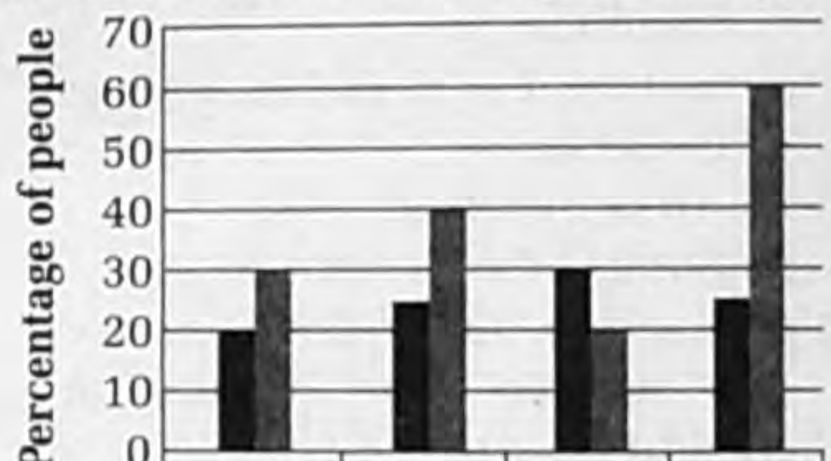
4. Out of her monthly salary, Nupur spends 25% on house-rent and puts $\frac{1}{3}$rd in her savings a/c. Out of the remaining salary, the respective ratio between the amount she invests in mutual funds and the amount spent for groceries is 2 : 3. If the amount spent for groceries is ₹ 11990/-, what is Nupur's approximate monthly salary ? (in ₹)
(1) 36000 (2) 56000 (3) 52000
(4) 48000 (5) 40000

5. Liquid A and B were mixed in an equal proportion in vessel X to form a 200 L mixture. 50 L of liquid C was added to the mixture in vessel X. 100 L of this mixture was taken out and put in vessel Y. If 20 L of liquid D was added to the mixture in vessel Y, what is the percentage of liquid C in vessel Y ? (Rounder off to two digits after decimal)
(1) 16.67 (2) 18.5 (3) 15.75
(4) 22.5 (5) 20.33

6. Article A was sold at a discount of 15% at a profit of 20%. The marked price of the article was ₹ 12000/-. Article B was sold at a discount of 10% at a profit of 10%. The marked price of article B was ₹ 11000/-. What is the difference between the profit earned by selling article A and article B ?
(1) ₹ 600/- (2) ₹ 700/- (3) ₹ 800/-
(4) ₹ 1000/- (5) ₹ 900/-

**Directions (7-11) :** *Study the following graph and answer the given questions.*

**The given graph shows the percentage of people who attended a 4-day cloth festival and the percentage of people who did shopping (out of the number of people who attended the festival on the respective day)**




| | Day-1 | Day-2 | Day-3 | Day-4 |
|---|---|---|---|---|
| % of attendees | 20 | 25 | 30 | 25 |
| % of shoppers | 30 | 40 | 20 | 60 |

- Total number of people who attended the festival in 4 days together is 80000.
- Certain percentage of people out of those who attended the festival did shopping on their respective days (as given in the graph).

7. What was the average number of people who attended the festival on Days 1, 3 and 4 ?
(1) 18000 (2) 22000 (3) 20000
(4) 16000 (5) 14000

8. Number of people who did shopping on Days 1 and 3 together was what percent of people who attended the festival on Day 3 ?
(1) 40 (2) 25 (3) 48
(4) 36 (5) 30

9. What was the respective ratio between the total number of people who did shopping on Days 1 and 2 together and the total number of people who attended the festival on Days 2 and 4 together ?
(1) 8 : 25 (2) 11 : 25 (3) 9 : 23
(4) 3 : 4 (5) 7 : 18

10. What was the total number of people who did shopping on Days 1, 2 and 3 together ?
(1) 16800 (2) 14200 (3) 19800
(4) 15400 (5) 17600

11. If the organisers extended the festival for one more Day and the number of people who did shopping on Day 5 was 30% more than those who did shopping on Day 3, what is the difference between the number of people who did shopping on Day 5 and that on Day 2 ?
(1) 1760 (2) 1680 (3) 1920
(4) 1420 (5) 1540

**Directions (12-16) :** *Study the following table carefully and answer the questions.*

**Data regarding number of users of a social media platform in 2011 in cities A, B, C and D is given. The percentage increase in the number of users from 2012-14 is also given.**

| City | No. of users in 2011 (in thousands) | Increase in the number of users (As compared to previous year) | | |
|---|---|---|---|---|
| | | 2012 | 2013 | 2014 |
| A | 600 | 15% | 20% | 25% |
| B | 400 | 10% | 25% | 20% |
| C | 300 | 12% | 25% | 10% |
| D | 500 | 20% | 10% | 15% |

12. What is the percentage increase in the number of users in city A from 2011 to 2014 ?
(1) 57.5 (2) 64.5 (3) 60.5
(4) 81.5 (5) 72.5

13. If the total number of users in all cities together is 3645000 in 2015, then what is the total growth percentage from 2014 to 2015 across all cities together ?
(1) 10 (2) 20 (3) 15
(4) 18 (5) 25

14. What is the respective ratio of the number of users in city A in 2012 and that in city D in 2014 ?
(1) 16 : 21 (2) 10 : 11 (3) 12 : 13
(4) 11 : 13 (5) 9 : 11

15. In 2016, the number of users in city B grew by 25% as compared to 2014 and that in city C grew by 50% as compared to 2014. What is the difference between the number of users in city B and that in city C in 2016 ? (in thousands)
(1) 132 (2) 124 (3) 120
(4) 136 (5) 128

16. What is the difference between the total number of users in city B and city D taken together for the year 2012 and 2013 respectively and the total number of users in city A and city C taken together in years 2013 and 2012 respectively ? (in thousands)
(1) 64 (2) 50 (3) 72
(4) 80 (5) 56

**Directions (17-21) :** *In these questions, a number series is given in which one number is wrong. Find out the wrong number :*

17. 10 4.5 3.5 5 16 122 1904
(1) 122 (2) 4.5 (3) 3.5
(4) 5 (5) 16

18. 800 678 579 498 434 385 349
(1) 434 (2) 498 (3) 385
(4) 678 (5) 579

19. 5 7 11 19 35 68 131
(1) 35 (2) 7 (3) 68
(4) 11 (5) 19

20. 1 12 120 960 5780 23040 46080
(1) 12 (2) 960 (3) 23040
(4) 5780 (5) 120

21. 27 34 51 75 107 147 195
(1) 107 (2) 34 (3) 147
(4) 51 (5) 75

22. A sum of ₹ 50000/- was invested in scheme A at 12% per annum simple interest for three years. A sum of ₹ 40,000/- was invested in scheme B at 10% per annum compound interest (compounded annually) for two years. What is the difference between the final amount received from scheme A and that received from scheme B ?
(1) ₹ 19,600/- (2) ₹ 20,200/- (3) ₹ 19,000/-
(4) ₹ 19,200/- (5) ₹ 18,600/-

23. Boat A covers a distance of 117 km upstream in 9 hours Boat B covers a distance of 135 km downstream in the same time. if the speed of the stream is 2 km/h (same for both the boats). How much more distance will boat A cover downstream than boat B upstream in 30 hours ?
(1) 150 km (2) 160 km (3) 60 km
(4) 120 km (5) 180 km

**Directions (24-28) :** *In the given questions, two quantities are given, one as Quantity I and another as Quantity II. You have to determine relationship between two quantities and*

**Give answer :**
(1) Quantity I ≥ Quantity II
(2) Quantity I > Quantity II
(3) Quantity I ≤ Quantity II
(4) Quantity I < Quantity II
(5) Quantity I = Quantity II or Relation cannot be established

24. Soham and Mohan both get a certain amount as pocket money. Both of them spend 40% of their respective pocket money. Out of their respective remaining pocket money, Soham keeps $\frac{2}{3}$rd and Mohan keeps $\frac{4}{5}$th in their bank accounts. Difference between the amounts they keep in their bank account is ₹ 2400/-.
**Quantity I.** Soham's pocket money if Mohan's pocket money is 25% more than that of Soham.
**Quantity II.** ₹ 12000/-.

25. Trains A and B travelling, at a speed of 72 km/h and 90 km/h respectively, in the same direction, cross each other in 4 minutes 21 seconds. Train A crosses a 360 m platform in 54 seconds, running at the same speed.
**Quantity I.** Length of train B
**Quantity II.** Length of train A.

26. The respective ratio between the height and the radius of a right circular conical structure (*A*) is 3 : 1. The volume of the cone (*A*) is 1078 cubic m.
**Quantity I.** Measure of the slant height of the given cone (*A*).
**Quantity II.** Measure of the slant height if another cone (*B*) whose radius and height are 14 m and 16 m respectively.

27. **Quantity I.** Roots of $x$, when $x^2 - 8x + 12 = 0$

**Quantity II.** Roots of $y$, when $y^2 = \sqrt{256}$

28. One of the equal sides of a right angled isosceles triangle ($\Delta ABD$) measures 12 cm. $BC$ is a perpendicular bisector.

**Quantity I.** Area of semicircle formed by $BC$ (as the diameter)

**Quantity II.** Area of a triangle whose height and base measures 12 cm and 7 cm respectively.

29. A alone can complete a task in 10 days. A and B worked together for 3 days, after which C replaced B. A was 50% more efficient than C. After A and C had worked together for 3 days, 13% of the task was incomplete. In approximately how many days can B (working alone) complete the entire task ?

(1) 24 (2) 64 (3) 12
(4) 20 (5) 43

30. Train-A (travelling at 54 km/h) crosses a 298 m long platform in 30 sec. Train-B (travelling at 72 km/h) overtakes Train-A in 66 sec. Train-B's length is approximately what percent more than that of Train-A ?

(1) 28 (2) 11
(3) 17 (4) 7
(5) 35

## PART – II : REASONING

**Direction (31) :** *Read the following information and answer the given question.*

Company P recently decided to issue an order stating that no monetary compensation for overtime will be paid to its employees working in city X from the next financial year.

31. Which of the following statements strengthens the decision of Company P ?

(1) The employees of company P working in city X have to work atleast three more hours per day to achieve their monthly targets.
(2) The number of clients of company P has been increasing significantly in city X from the past three years.
(3) Five employees of company P were transferred to city X last month to bring the total number of employees in city X at par with those in other cities.
(4) The cost of living index of city X is highest in the country.
(5) None of the given statements strengthens the decision of company P.

32. How many such pairs of letters are there in the word LANGUAGE each of which has as many letters between them in the word (in both forward and backward directions) as there are in English alphabetical order ?

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

**Directions (33-37) :** *In these questions, relationship between different elements is shown in the statements. The statements are followed by conclusions. Study the conclusions based on the given statements and*

**Give answer :**

(1) If **only** conclusion **I** is true
(2) If **only** conclusion **II** is true
(3) If **both** conclusions I and II are true
(4) If **neither** conclusion I **nor** II is true
(5) If **either** conclusion I **or** II is true

33. **Statements :**
$S = U \le M = D \le G; M \ge N; G < K \ge Z$
**Conclusions I.** $U = N$
**II.** $D \ge S$

34. **Statements :**
$C < A < T = S; A < I = M; S \ge P$
**Conclusions I.** $C < S$
**II.** $T < M$

35. **Statements :**
$C < A < T = S; A < I = M; S \ge P$
**Conclusions I.** $P > A$
**II.** $I > P$

36. **Statements :**
$S = U \le M = D \le G; M \ge N; G < K \ge Z$
**Conclusions I.** $S \le N$
**II.** $M < K$

37. **Statements :**
$R < S \le T \le U; U = V \ge X \ge Y$
**Conclusions I.** $Y > R$
**II.** $Y \le U$

**Directions (38-42) :** *Study the given information carefully to answer the given questions.*

Five boxes viz. P, Q, R, S and T are kept above one another. Each box has a different colour viz. Red, blue, white, yellow and pink. Only two boxes are kept between R and the white box. Only one box is kept between R and S. Only two boxes are kept between the yellow and the blue boxes. The yellow box is kept at one of the positions above the blue box. The yellow box is not kept at the topmost position. As many boxes are kept between the white and the blue boxes as between T and the pink box. T is kept at one of the positions below S. Q is kept at one of the positions above P.

38. What is the position of the pink box in the given stack of boxes ?

(1) Third from the top
(2) First from the top
(3) Second from the bottom
(4) Immediately below P
(5) Immediately above the blue box

39. Which of the following pairs of boxes is kept between the yellow and the blue boxes ?

(1) S and the white box
(2) The red and the white boxes
(3) T, R
(4) T and the red box
(5) P, Q

40. How many boxes are kept between Q and the white box ?

(1) Two (2) None
(3) One (4) Three
(5) Cannot be determined

41. Which of the following is/are true with respect to the given arrangement ?

I. T is kept exactly between R and S.
II. T is the yellow box.
III. R is the red box.

(1) Only III (2) Only I
(3) Only II (4) Both II and III
(5) Both I and III

42. Which of the following represents the colour of box P ?

(1) Pink (2) White
(3) Red (4) Yellow
(5) Blue

**Direction (43) :** *In this question is given a statement followed by two conclusions numbered I and II. You have to consider the statement and the following conclusions and decide which of those can be concluded from the statement.*

43. **Statement :** Last over of the match remains to be bowled but it is definite that Team A has lost to Team B as 29 runs cannot be made in five balls in any possible circumstance.

I. In the match being played by Teams A and B, one over contains five balls only.

II. In the match being played between teams A and B, the maximum runs possible in one ball is definitely less than six.

(1) Either I or II can be concluded
(2) Only II can be concluded
(3) Neither I nor II can be concluded
(4) Both I and II can be concluded
(5) Only I can be concluded

**Direction (44) :** *Read the given information to answer the given question.*

The government of Country X has decided to privatise the restoration and conservation of historical monuments and sites.

44. Which of the following may be the probable effect of privatising the conservation of historical monuments ?

A. It will give a facelift to the neglected heritage sites of the country.
B. Prices of entry tickets for historical monuments and sites will decrease after privatisation.
C. It will attract and promote more tourists in the country.

(1) Both B and C (2) Only A
(3) Only C (4) All A, B and C
(5) Both A and C

**Directions (45-49) :** *Study the following information to answer the following questions.*

In a certain code language,
'friends make life easy' is written as 'gk nj om wp'
'good to have friends' is written as 'ew ir nj uc'
'good form for life' is written as 'zy gk ir th'
'easy form of bonding' is written as 'ls th fv om'
(**Note :** All codes are two letter codes only)

45. What does the code 'gk' stand for in the given code language ?
(1) friends
(2) for
(3) Either 'friends' or 'make'
(4) Either 'good' or 'easy'
(5) life

46. Which of the following may represent 'of friends' in the given code language ?
(1) nj bf (2) nj ew
(3) fv uc (4) wp fv
(5) ls nj

47. If 'have years for' is coded as 'zy hb uc' and 'several years' is coded as 'hb ad' in the given code language then which of the following may represent 'to several' in the given code language ?
(1) ad hb (2) ad ew
(3) zy ir (4) ew uc
(5) uc ad

48. What is the code for 'good' in the give code language ?
(1) gk (2) uc (3) ir
(4) nj (5) om

49. Which of the following may represent 'promote bonding form' in the given code language ?
(1) fv nj th (2) ls yi gk
(3) fv yi th (4) fv ls wp
(5) rt om fv

**Directions (50-54) :** *Study the given information carefully to answer the given questions.*

Eight people—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 corners while four sit in the middle of each of the four sides. The ones sitting in the middle of the sides are facing the centre and the ones sitting at the corners are facing outside (*i.e.*, opposite to the centre. Each one of them also likes a different colour viz. Red, Black, Green, Yellow, Purple, Orange, White and Blue.
(**Note :** None of the information given is necessarily in the same order)
E sits at one of the corners of the table. Only two people sit between E and the one who likes Purple (either from his left or right). The one who likes White sits to the immediate right of B. B faces the centre. B is not an immediate neighbour of E. B does not like Purple. Only three people sit between the ones who like White and Black. H sits second to the left of the one who likes Black. Both H and the one who likes Yellow face the same direction (if H faces the centre then the one who likes yellow also faces the centre and vice-versa). F sits third to the right of the one who likes Blue. Neither H nor B likes Blue. D is one of the immediate neighbours of the one who likes Blue. A likes Green. C sits to the immediate right of the one who likes Red.

50. Who sits second to the right of G ?
(1) F
(2) The one who likes Orange
(3) E
(4) The one who likes Green
(5) H

51. Who amongst the following likes Orange colour ?
(1) H (2) B (3) D
(4) G (5) E

52. Which of the following statements is true with respect to the given arrangement ?
(1) None of the given options is true
(2) A is an immediate neighbour of H
(3) B sits second to the left of C
(4) Only three people sits between C and E
(5) G sits in the middle of one of the sides of the table.

53. Four of the following five are alike in a certain way based on their positions in the given arrangement and thus form a group. Which one of the following does not belong to that group ?
(1) FH (2) BC (3) ED
(4) AC (5) HG

54. What is the position of E with respect to the one who likes Black ?
(1) Third to the left
(2) Third to the right
(3) Immediate left
(4) Second to the right
(5) Immediate right

**Direction (55) :** *This question consist of a statement and arguments numbered I to IV. You have to pick from the given options the argument/s which is/are strong pertaining to the given statement.*

**55. Statement :** Should the government increase subsidies provided to the farmers in order to bring about improvement in agriculture ?

**Argument I.** No, since subsidies are provided to only certain crops. It motivates farmers to grow only these crops without rotation for long period leading to increase in pest attack and diminished soil fertility.

**Argument II.** Yes, most of the developed countries which provide subsidy in agriculture have been leaders in the production of a certain number of crops.

**Argument III.** No, the subsidy being provided to the farmers is already the eighth highest in the world.

**Argument IV.** Yes, as farming is a seasonal business it becomes difficult for the farmers to maintain a steady income without subsidies.

(1) Both I and IV are strong
(2) Both II and III are strong
(3) Only I is strong
(4) Both I and Ii are strong
(5) Both II and IV are strong

**56.** If only one meaningful English word can be made with the fourth, the fifth, the ninth and the eleventh letters of the word NOURISHMENT (when counted from left to right), using each letter only once, then which of the following will be the second letter of the word from the left end. If no such word can be formed then your answer is X. If more than one such word can be formed then your answer is Z.

(1) X (2) E (3) Z
(4) T (5) R

**Directions (57-61) :** *Study the given information carefully to answer the given questions.*

Seven people—P, Q, R, S, T, U and V were born in different years, viz. 1945, 1956, 1968, 1970, 1981, 1996 and 2008. Each of them likes a different company viz. Samsung, TCS, Airtel, Wipro, Infosys, Google and Dell.

**Note :** A. All calculations are done with respect to the present year, 2018 assuming the month and date to be same as that of the years of birth as mentioned above.

B. Each person is assumed to be born on the same date and same month of the respective years.

C. None of the information given is necessarily in the same order.

The difference between the present ages of Q and the one who likes Wipro is 12. Q is elder than the one who likes Wipro. The sum of the present ages of the ones who like Wipro and Dell is 60. P was born in an odd numbered year before the one who likes Wipro. The difference between the present ages of P and the one who likes Samsung is 11. The one who likes Samsung is younger than P. The sum of the present ages of T and V is 98. T neither likes Wipro nor Dell. The one who likes TCS was born in an even numbered year after T. As many persons were born after the one who like TCS as before S. The one who likes Infosys is elder than S. U does not like Wipro. The difference between the present ages of U and the one who likes Airtel is less than 15.

**57.** How many persons were born between T and the one who likes Infosys ?

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

**58.** Who amongst the following likes Google ?

(1) P (2) U (3) S
(4) T (5) V

**59.** In which of the following years was R born ?

(1) 1968 (2) 1970 (3) 1981
(4) 2008 (5) 1956

**60.** Which of the following statements is true as per the given arrangement ?

(1) V likes Airtel
(2) The difference between the present ages of R and the one who likes TCS is 5.
(3) P is younger than S.
(4) None of the given statements is true
(5) Only three persons are elder than T.

**61.** Who amongst the following is/are younger than the one who likes TCS ?

(1) Only the one who likes Wipro
(2) Both V and U
(3) Both S and the one who likes Google
(4) Only S
(5) Both R and the one who likes Dell

**Directions (62-66) :** *Study the following information and answer the given questions.*

Nine people, namely A, B, C, D, E, F, G, H and I completed different number of projects in a year, viz. 9, 16, 23, 35, 39, 42, 56, 60 and 71. Each of them works in either of the four departments of a company viz. Production, Marketing, R&D and Finance with atleast two of them in a department.

(**Note :** None of the information given is necessarily in the same order)

F works in R&D department with the one who completed 23 projects. Both the ones who completed 35 and 42 projects work in the same department but not in Marketing department. F completed even number of projects. Only two people work in production department. The total number of projects completed by both the people in production department was 95. G completed maximum number of projects. B works with only G but not in Finance department. A works with the one who completed 16 and 60 projects. F completed less number of projects than A. The difference between the number of projects completed by D and H is 4. D completed more number of projects than H. D does not work in the department in which A works. C and D work in the same department. I completed more number of projects than C.

62. Who amongst the following completed 56 projects ?
(1) A (2) C (3) I
(4) D (5) B

63. In which of the following pairs did both the persons complete even number of projects ?
(1) A, D (2) F, A (3) H, F
(4) E, B (5) F, I

64. What is the total number of projects completed by the people in R&D department ?
(1) 99 (2) 83 (3) 77
(4) 80 (5) 72

65. Which of the following combinations represents the department in which E works and the number of projects completed by him ?
(1) Production -39 (2) Finance - 42
(3) Marketing - 9 (4) Finance- 35
(5) R&D- 42

66. Four of the following five are alike in a certain way as per the given arrangement and hence form a group. Which of the following does not belong to that group ?
(1) G- 39 (2) I -71 (3) B -23
(4) C - 9 (5) E - 35

**Directions (67-70) :** *Study the following information and answer the given questions.*

M and B are the children of R. Y is married to B. G is the father of Y. B has only one son. K is the only nephew of M. X is the grandfather of K. V is the only daughter of X. A is the daughter of V.

67. How is R related to A ?
(1) Cannot be determined (2) Father-in-law
(3) Grandmother (4) Mother-in-law
(5) Aunt

68. How is Y related to V ?
(1) Cousin (2) Brother-in-law
(3) Sister-in-law (4) Nephew
(5) Aunt

69. If F is married to G, then how is F related to B ?
(1) Sister-in-law (2) Mother
(3) Aunt (4) Grandmother
(5) Mother-in-law

70. If J is married to V, then how is J related to K ?
(1) Cannot be determined (2) Father-in-law
(3) Father (4) Grandfather
(5) Uncle

**Direction (71) :** *In this question a statement is given followed by two courses of action numbered I and II. A course of action is a practicable and feasible step or administrative decision to be taken for follow-up, improvement, or further action in regard to the problem, policy, etc. On the basis of the information given in the statement, you have to assume everything in the statement to be true, and decide which of the suggested courses of action logically follow(s) for pursuing.*

71. **Statement :** Company M is an IT company which also involves designing customized computer software's for their clients once in every two to three months. Recently, two of the four software designers of Company M were on leave on the same days when one of the leading clients of the company gave a big scale project at a short notice. Company M suffered a loss as it could not complete the project on time.
**Course of Action I.** Company M should avoid accepting any project from the mentioned client in future.
**Course of Action II.** Company M should hire two more software designers every quarter to handle such exigencies.
(1) Neither I nor II follows
(2) Both I and II follows
(3) Only II follows
(4) Either I or II follows
(5) Only I follows

**Direction (72) :** *Study the given information carefully to answer the given question.*

In order to protect its employees from Apso disease, the management of company X has instructed the head of its canteen to discontinue selling of items having 'Aabrak' as an ingredient for the next 4 months. The canteen has planned to make up for the loss atlest to some extent by replacing 'Aabrak' with 'Mugaar'.

72. Which of the following cannot be inferred from the given information ?
(1) 'Mugaar' is similar to 'Aabrak' to quite some extent but does not cause 'Apso'.
(2) The management will hold the head of the canteen responsible if any of the employees is diagnosed with Apso even after such strict actions.
(3) Items having Aabrak as an ingredient presently give good profits to the canteen.
(4) Consumption Aabrak in any form can cause Apso disease.
(5) After 4 months from now, the chances of people

73. Which of the following will come in the given series in the place of question mark ?
W V U T 8 7 6 5 $ % # @ V U T 7 6 5 % # @ U T 6 5 ?
(1) % (2) # (3) T
(4) @ (5) 5

**Directions (74-76) :** *Read the given information to answer the given questions.*

Tara starts walking from point A towards south-east direction. She walks for a distance of 20 m to reach point B. From point B she walks towards north direction. She walks for a distance of 8 m to reach point C and again turns left. From point C she walks for 12 m to reach Point D. Point E forms the mid-point of the straight line DC and AB. From point D she turns right and walks for a distance of 5 m to reach point F. From point F she turns left and walks for 6 m to reach Point G. Point K forms the mid-point of the straight line FG. From point G she again turns left walks for 5 m and reaches point H. From point H she turns left walks for a certain distance to reach point I. From point I she turns left walks for 8 m to reach point J such that IKJ lie in a straight vertical line.

**74.** In which of the following pairs the distance between two the given points is minimum ?
(1) JI (2) HE
(3) AJ (4) KI
(5) EC

**75.** In which direction is point G with respect to Point B ?
(1) West (2) North-East
(3) North-West (4) South-East
(5) South

**76.** What is the distance between Point H and Point E ?
(1) 9 m (2) 6 m
(3) 15 m (4) 12 m
(5) 18 m

**Direction (77) :** *In this question is given a statement followed by two assumptions numbered I and II. You have to consider the statement and the following assumptions and decide which of those is/are implicit in the statement ?*

**77. Statement :** The advanced research agency of defence ministry of Country X has developed bug sized robots that will be tested for deploying in locations that are dangerous and difficult to locate.

**Assumption I.** These robots could be used in search and rescue operations after natural disasters or to inspect hazardous environment in Country X.

**Assumption II.** The miniscule size robots may replace the larger robots for all important tasks of Country X.
(1) Both I and II are implicit
(2) Only II is implicit
(3) Neither I nor II is implicit
(4) Either I or II is implicit
(5) Only I is implicit

**Direction (78) :** *Study the given information carefully to answer the given question.*

Railways Ministry decided to approve a budget of ₹ 50 crore for State X to refurbish all express trains starting from the state.

**78.** Which of the following proves that the decision of Railways department of State X was wrong ?
(1) Two other states of the country also spent ₹ 120 crore last year to improve the functioning of trains in their respective State.
(2) The number of complaints from passengers regarding poor quality seats and interiors of couches in express trains starting from State X has been increasing every year.
(3) Five new trains which originated from State X were started this year to accommodate the increasing number of passengers.
(4) The total budget of ₹ 80 crore was allocated for States X and Y jointly and the budgetary requirement of State Y was substantially higher than that of State X.
(5) The total number of passengers travelling from State X to other states is highest in the country.

**Direction (79) :** *In this question is given a statement followed by two inferences numbered I and II. (An inference is something by which you can logically deduce something to be true based on known premises). You have to consider the statement and the following inferences and decide which of those is/are implicit in the statement.*

**79. Statement :** 'Around 80% of the employees who reported late for work in the past month were those who reside within 500 m radius of the company'- HR Manager of Company B.

**I.** Those who reported late in the past month had recently shifted within 500m radius of the company.

**II.** Only 20% of company B reside beyond 500 m radius of the company.
(1) Neither I nor II can be inferred
(2) Only I can be inferred
(3) Both I and II can be inferred
(4) Either I or II can be inferred
(5) Only II can be inferred

**Directions (80-84) :** *Study the given information carefully to answer the given questions.*

Seven people— P, Q, R, S, T, U and V sit in a straight line facing north (not necessarily in the same order). Each one supports a different team in the cricket world cup viz. India, New Zealand, England, South Africa, Australia, West Indies and Sri Lanka (not necessarily in the same order).

The one who supports India sits third from the left end of the line. Only one person sits between the one who supports India and U. Only two people sit between U and P. P supports Sri Lanka. P and Q are immediate neighbours of R. R does not support India. V supports West Indies and sits at one of the extreme ends of the line. Only three people sit between V and S. The one who supports South Africa sits third to the right of T. The one who supports England is an immediate neighbour of S. The one who supports New Zealand sits at one of the positions to the left of the one who supports Australia.

**80.** As per the given arrangement, who amongst the following sits at one of the extreme ends of the line ?
(1) R
(2) U
(3) Q
(4) S
(5) T

**81.** Which of the following is true with respect to the given arrangement ?
(1) None of the given statements is true
(2) Only three people sit between T and the one who supports Australia.
(3) S supports Australia
(4) P and R are immediate neighbours of T.
(5) U and V are immediate neighbours of each other.

82. As per the given arrangement, Vis related to R in the same way as Q is related to P. As per the given pattern, who is S related to ?
(1) The one who supports South Africa
(2) R
(3) U
(4) T
(5) The one who supports India

83. As per the given arrangement, who sits second to the right of T ?
(1) V
(2) Q
(3) U
(4) The one who supports West Indies
(5) The one who supports Sri Lanka

84. As per the given arrangement, which team does T support ?
(1) None of the given options
(2) New Zealand
(3) England
(4) Australia
(5) India

**Direction (85) :** *This question consists of a situation followed by two statements numbered I and II given below it. Which of the given statements can be a possible reason for the given situation ?*

85. **Situation :** The authorities of the electricity board of City A, have decided to replace the transformer of Area B with a high power transformer this month.
**Statement I.** Area B witness frequent power cuts during peak summer and winter seasons when the load on transformer increases.
**Statement II.** From this month onwards the transformer of Area B will also act as a power source for the neighbouring Area C which has similar population.
(1) Neither I nor II can be a possible reason.
(2) Either I or II can be a possible reason.
(3) Both I and II can be a possible reason.
(4) Only I can be a possible reason
(5) Only II can be a possible reason

**Directions (86-90) :** *These questions consist of a question and two statements numbered 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*
**Give answer :**
(1) 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.
(2) The data in statement **II alone** are sufficient to answer the question while the data in statement I 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.

86. Six boxes— A, B, C, D, E and F are kept one above the other. What is the position of box C ?
I. No box is kept between A and B. Only four boxes are kept between B and C. F is kept at one of the positions above C.
II. D is kept immediately above F. More than two boxes are kept between F and B. More than two boxes are kept between B and C.

87. A certain number of people are sitting in a straight line. What is the position of C from the right end of the line ?
I. C sits third to the left of F. Only one person sits between V and F. V sits ninth from the right end of the line.
II. Q sits at the extreme right end of the line. Only four persons sit between Q and W. R sits second to the left of W. As many people sit between W and R as between C and R.

88. What is the bus fare from city A to city B ?
(**Note :** The only available denominations of the currency are - 10, 50, 100, 500 and 1000)
I. For two tickets Dev gave four notes out of which three were of the same denomination lower than 100 and one was of denomination higher than 100. The conductor returned 4 notes of same denomination which was higher than 50. The balance amount was exact multiple of 13.
II. For four tickets Suzie gave three notes all of which were of the same denomination above 50. The conductor returned four notes all of which were of the same denomination below 100.

89. Five people–J, K, L, M and N were born in five different months of the same year- January, April, July, August and November. In which month was N born ?
I. J was born in a month having only 30 days. More than two people were born between J and K. M was born in one of the months before L.
II. L was born in a month having 31 days. Only two people were born between L and K. N was born immediately after K.

90. Ranjit makes 100 pancakes daily. How many pancakes did he sell on Thursday ?
I. Ranjit's brother correctly remembers that he sold more than 80 pancakes but less than 95 pancakes on Thursday. Ranjit's sister correctly remembers that he sold more than 90 pancakes on Thursday and the number of pancakes sold was a multiple of 7.
II. Ranjit's mother correctly remembers that he sold more than 85 pancakes on Thursday but not all 100 pancakes on sale. Ranjit's wife correctly remembers that less than 10 pancakes were unsold on Thursday and the number of unsold pancakes was a multiple of 3.