Solved Paper

LIC-AAO

(Assistant Administrative Officer)

(Held on 06-03-2016)

PART - I : REASONING

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

I, J, K, L, M, N, O and P are sitting around a circular area at equal distance between each other but not necessarily in the same order. Some people face the centre while some face the outside (*i.e.* in a direction opposite to the centre.)

J sits third to the right of M. M faces outside. Only one person sits between J and N. Both the immediate neighbours of N face outside. Only three people sit between O and P. O is not an immediate neighbour of J. Both the immediate neighbours of L face the centre. L is not an immediate neighbour of O. Both the immediate neighbours of K face the centre. Both the immediate neighbours of M face a direction opposite to that of O (*i.e.* if O faces the centre then both the immediate neighbours of M face outside and vice-versa.)

1. Which of the following is true regarding I as per the given arrangement ?
   (1) P is one of the immediate neighbours of I.
   (2) I faces the centre.
   (3) I sits third to the left of L.
   (4) Only three people sit between I and N.
   (5) None of the given options is true

2. Who is sitting to immediate right of L ?
   (1) J (2) M
   (3) I (4) P
   (5) K

3. What is O's position with respect to K ?
   (1) Fifth to the right
   (2) Second to the right
   (3) Third to the right
   (4) To the immediate left
   (5) Fourth to the right

4. Who amongst the following are immediate neighbours of M ?
   (1) P, M (2) L, M
   (3) O, P (4) I, O
   (5) I, K

5. Four of the following five are alike in a certain way based on the given arrangement and so form a group. Which is the one that does not belong to that group ?
   (1) J (2) K
   (3) P (4) L
   (5) O

Directions (6-10) : *Study the given information carefully and answer the given questions.*

Twelve people are sitting in two parallel rows containing six people each, in such a way that there is equal distance between adjacent persons. In row-1 B, C, D, E, F and G are seated and all of them are facing south. In row-2 P, Q, R, S, T and U are seated and all of them are facing north. Therefore, in the given seating arrangement, each member seated in a row faces another member of the other row. (**Please note :** None of the information given is necessarily in the same order.)

R sits second to the right of S. Only one person sits between R and U. C sits to the immediate left of the one who faces U. Only two people sit between C and F. Q sits fourth to the left of T. G is an immediate neighbour of the one who faces T. D does not face R. B sits third to the right of D. E is an immediate right of B. G does not face P.

6. Who amongst the following is facing C ?
   (1) U (2) S
   (3) R (4) P
   (5) T

7. Which of the following statements is true regarding P ?
   (1) E is an immediate neighbour of the one who faces P
   (2) Only one person sits between P and T
   (3) P sits to the immediate right of U
   (4) None of the given statements is true
   (5) Q is an immediate neighbour of P

8. Four of the given five are alike in a certain way based on the given arrangement and hence form a group. Which of them does not belong to that group ?
   (1) F (2) G
   (3) S (4) T
   (5) D

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

10. Who amongst the following is facing Q ?
(1) B (2) E
(3) F (4) C
(5) D

Directions (11-12) : *Study the following information and answer the given questions.*

L has only two daughters– U and P. P is married to K. K is the father of S. S is the son-in-law of Y. U is married to Q.

11. If Z is the daughter-in-law of P, then how is Z related to S ?
(1) Mother (2) Mother-in-law
(3) Sister (4) Niece
(5) Wife

12. How is Q related to L ?
(1) Brother-in-law
(2) Brother
(3) Son
(4) Nephew
(5) Son-in-law

Directions (13-14) : *Study the given information carefully to answer the given questions.*

Kunal starts from Point A, walks 14 m to the north and reaches Point B. He then takes a right turn and walks 5 m and reaches Point C. He finally takes a left turn and walks 4 m and stops at Point D.

Shubhra who is standing at Point Z which is 6m to the west of Point B walks 7 m towards south, takes a left turn and walks for 11 m and stops at Point Y.

13. How far and in which direction is Point D with respect to Point Y ?
(1) 9 m towards south
(2) 11 m towards north
(3) 11 m towards south
(4) 10 m towards south
(5) 9 m towards north

14. If Shubhra walks 4 m towards North from Point Z, in which direction will she have to walk in order to reach Point D ?
(1) South-east (2) North-west
(3) East (4) West
(5) North

Directions (15-19) : *In these questions, two/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 the commonly known facts and then decide which of the given conclusions logically follow from the given statements disregarding commonly known facts.*

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

15. **Statements :**
No cream is a lotion.
Some lotions are perfumes.
Conclusions : **Ans : (2)**
I. All perfumes are lotions.
II. No cream is a perfume.

(16-17) : Statements :
All legumes are pulses.
Some pulses are grains.
No grain is a crop.

16. **Conclusions :** **Ans : (5)**
I. All legumes are crops.
II. All pulses can never be crops.

17. **Conclusions :** **Ans : (4)**
I. All crops being pulses is a possibility.
II. At least some grains are legumes.

18. **Statements :**
Some oceans are rivers.
All oceans are waterfalls.
Conclusions : **Ans : (5)**
I. All rivers are waterfalls.
II. Some rivers are waterfalls.

19. **Statements :**
Some curtains are pillows.
All pillows are blankets.
All blankets are doormats.
Conclusions : **Ans : (2)**
I. All curtains can never be blankets.
II. All doormats being curtains is a possibility.

Directions (20-24) : *Study the following information and answer the questions.*

Seven people, namely M, N, O, P, Q, R and S like seven different cars namely, Volkswagen, Audi, BMW, Mercedes, Nissan, Jaguar and Fiat but not necessarily in the same order. They will also attend a screening not necessarily in the same order, from Monday to Sunday (of the same week.)

M will attend a screening on Friday. Only one person will attend a screening between M and the one who likes Jaguar. Only two people will attend a screening between R and the one who likes Jaguar. The one who likes Nissan will attend a screening immediately before N. Only two people will attend a screening between the one who likes Nissan and O does not like Jaguar. Only one person will attend a screening between the one who likes Mercedes and O. Q does not like Nissan. S will attend the screening immediately before Q. Only two people will attend a screening between Q and the one who likes Audi. Only one person will attend a screening between the one who likes Volkswagen and the one who likes BMW. The one who likes BMW will attend the screening immediately before the one who likes Volkswagen. N does not like Audi.

20. Which of the following pairs represent the people who attend screening immediately before and immediately after M ?
(1) Q, N (2) N, O
(3) N, P (4) Q, O
(5) R, P

21. Four of the following five are alike as per the given arrangement and hence form a group. Which of the following does not belong to that group ?
(1) M-BMW
(2) Q-Audi
(3) S-Mercedes
(4) P-Fiat
(5) R-Jaguar

22. On which of the following days will N attend a meeting ?
(1) Tuesday
(2) Monday
(3) Wednesday
(4) Thursday
(5) Sunday

23. Which of the following cars does P like ?
(1) Audi (2) Fiat
(3) BMW (4) Nissan
(5) Cannot be determined

24. As per the given arrangement S is related to Thursday and R is related to Sunday in a certain way. To which of the following is Q related to in the same way ?
(1) Saturday (2) Monday
(3) Wednesday (4) Friday
(5) Tuesday

Directions (25-28) : *Study the given information carefully to answer the given questions.*

Eight people J, K, L, M, N, O, P and Q live on eight different floors of a building, but not necessarily in the same order.

The lowermost floor of the building is numbered one, the one above that is numbered two and so on till the topmost floor is numbered eight.

P lives on the floor numbered 3. Only one person lives between J and P. Only three people live between M and J. O lives immediately above M. There are as many people between O and J as there are between P and Q. K lives on an even numbered floor. Only three people live between K and L. K lives above the floor at which L lives.

25. Four of the following five are alike in a certain way and hence form a group. Which one of them does not belong to the group ?
(1) LP (2) OK (3) MO
(4) KN (5) NQ

26. Who amongst the following lives immediately below N ?
(1) O (2) K (3) P
(4) Q (5) No one

27. If all the people are made to live in alphabetical order from bottom to top, the positions of how many people will remain unchanged ?
(1) Two (2) None
(3) One (4) Three
(5) More than three

28. How many people live between Q and P ?
(1) One (2) Three
(3) None (4) Two
(5) More than three

Directions (29-30) : *Study the given information carefully to answer the given questions.*

Five people A, B, C, D and E won different number of competitions. Only two people won more number of competitions than E. B won more competitions than D but less than A. C won more competitions than D. C neither won the maximum number of competitions nor second lowest number of competitions. The one who won the second lowest number of competitions won 8 competitions.

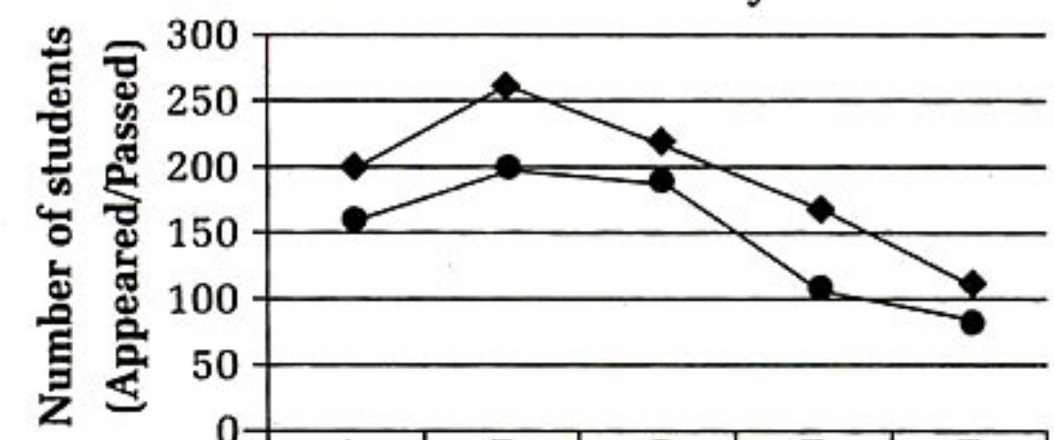
29. If the difference between the number of competitions won by B and A is 16, then which of the following may possibly represent the number of competitions won by E ?
(1) 5 (2) 25 (3) 7
(4) 14 (5) 23

30. Who among the following won the second highest number of competitions ?
(1) C (2) E (3) D
(4) B (5) A

PART - II
QUANTITATIVE APTITUDE

Directions (31-35) : *Refer to the graph and answer the given questions.*

Data given are regarding number of students who had appeared/passed in a certificate exam from five schools in the year 2008



	A	B	C	D	E
Appeared	200	260	220	160	120
Passed	160	200	190	110	90

31. Number of students who appeared the exam from school A was what percent more than that who appeared from school D ?
(1) 20 (2) 25
(3) 15 (4) 30
(5) 10

32. What is the average number of students who passed the exam from schools C, D and E ?
(1) 150 (2) 110
(3) 120 (4) 130
(5) 140

33. Out of all the given schools, for which school was the number of students taking the exam maximum ?
(1) B (2) E
(3) D (4) A
(5) C

34. In the year 2009, the number of students who appeared the exam from school E was 15% more than that who appeared the exam from same school in previous year. How many students appeared the exam from school E in 2009 ?
(1) 136 (2) 138
(3) 140 (4) 142
(5) 148

35. What is the respective ratio between the total number of students who appeared the exam from schools B and C together and that who passed the exam from the same schools together ?
(1) 4 : 3 (2) 16 : 15
(3) 8 : 3 (4) 15 : 11
(5) 16 : 13

36. Out of the total population, 55% were males. Out of the total number of females, 60% were literates and remaining 360 were illiterates. If 70% of the males are literates, how many males were illiterate ?
(1) 320 (2) 330
(3) 240 (4) 220
(5) 300

Directions (37-41) : *What will come in place of question mark (?) in the given number series ?*

37. 2 3 7 22 89 ?

(1) 446 (2) 412
(3) 324 (4) 319
(5) 298

38. 196 100 52 28 ? 10

(1) 14 (2) 18
(3) 12 (4) 16
(5) 15

39. 140 133 119 98 ? 35

(1) 70 (2) 45
(3) 30 (4) 72
(5) 61

40. 300 325 276 357 236 ?

(1) 302 (2) 426
(3) 415 (4) 496
(5) 405

41. 14 ? 7 14 56 448

(1) 9 (2) 12
(3) 25 (4) 7
(5) 14

42. 8 men can finish a piece of work in 21 days. 14 men started working and after 3 days were replaced by 9 women. These 9 women finished the remaining work in 24 days. In how many days 9 women can finish the whole work ?

(1) 24 (2) 26
(3) 36 (4) 32
(5) 30

43. The radius of the circular field is equal to the side of a square field. If the difference between the area of the circular field and area of the square field is 195 m^2, what is the perimeter of the circular field ? (in m)

(1) 132 (2) 80
(3) 44 (4) 176
(5) 112

44. There are 5 consecutive odd numbers. If the difference between the square of the average of the first two odd numbers and square of the average of the last two odd numbers is 492, what is the smallest odd number ?

(1) 37 (2) 42
(3) 41 (4) 35
(5) 39

45. A boat can travel 12.8 km downstream in 32 min. If the speed of the water current is $\frac{1}{5}$th of the speed of the boat in still water, what distance (in km) the boat can travel in 135 min ?

(1) 27.5 (2) 10.2
(3) 28.5 (4) 29
(5) 36

46. A batsman played three matches in a tournament. The respective ratio between the scores of 1st and 2nd match was 8 : 9 and that between the scores of 2nd and 3rd match was 3 : 2. The difference between the 1st and 3rd match was 16 runs. What was the batsman's average score in all the three matches ?

(1) 40 (2) 58
(3) $60\frac{1}{4}$ (4) $45\frac{1}{5}$
(5) $61\frac{1}{3}$

47. Ratio between the present ages of A and B is 2 : 3 respectively. B's age twenty - one years hence will be twice of A's age six years hence. What is the difference between the present ages of A and B ?

(1) 15 years (2) 9 years
(3) 8 years (4) 10 years
(5) 6 years

48. Cost price of article A is ₹ 100/- more than cost price of article B. Article A was sold at 40% profit and article B was sold at 40% loss. If the overall profit earned after selling both the articles is 5%, what is the cost price of article B ?

(1) ₹ 300/- (2) ₹ 400/-
(3) ₹ 250/- (4) ₹ 350/-
(5) ₹ 850/-

Directions (49-53) : *Based on the following table, answer the given questions.*

The data given in the table is for the month of March in 2015

Company	Total Number of employees	Number of male employees
A	5250	2520
B	4800	2140
C	3000	1560
D	2400	840
E	2000	1020
F	3280	1800

49. The total number of male employees in companies B and A together is what percent of the total number of employees in company E ?

(1) 233 (2) 226
(3) 223 (4) 234
(5) 222

50. The number of female employees in company F is approximately what percent more than the number of employees in company E ?

(1) 26% (2) 45%
(3) 15% (4) 35%
(5) 51%

51. What is the average number of employees in companies A, D and E ?

(1) 1724 (2) 1720
(3) 1712 (4) 1600
(5) 1460

52. What is the difference between the number of female employees in company A and that in company B ?

(1) 70 (2) 40
(3) 100 (4) 90
(5) 80

53. If in April 2015, the number of male employees in Company C increased by 10% and the number of total employees in the company remained the same, what was the number of female employees ?

(1) 1428 (2) 1314
(3) 1296 (4) 1284
(5) 1410

Directions (54-58) : *In each question, two equations numbered I and II are given. You have to solve both the equations and mark an appropriate answer.*

Give answer :

(1) If $x \le y$
(2) If $x > y$
(3) If relationship between x and y cannot be established
(4) $x < y$
(5) $x \ge y$

54. I. $x^2 = 10$

II. $y^2 - 9y + 20 = 0$ **Ans : (4)**

55. I. $2x^2 - 15x + 27 = 0$

II. $2y^2 - 13y + 20 = 0$ **Ans : (3)**

56. I. $9x^2 - 21x + 10 = 0$

II. $y^2 - 8y + 15 = 0$ **Ans : (4)**

57. I. $2x^2 - 13x + 15 = 0$

II. $2y^2 - 11y + 12 = 0$ **Ans : (5)**

58. I. $2x^2 + 7x + 6 = 0$

II. $2y^2 + 17y + 30 = 0$ **Ans : (2)**

59. A certain sum is invested for 2 years in scheme A at 20% p.a. compound interest compounded annually. Same sum is also invested for the same period in scheme B at x% p.a. to a simple interest earned from scheme A or twice of that earned from scheme B. What is the value of x ?

(1) 10 (2) 11

(3) 15 (4) 12

(5) 19

60. There are 7 red balls and 8 yellow balls in a bag. Two balls are simultaneously drawn at random. What is the probability that both the balls are of same colour ?

(1) $\frac{3}{18}$ (2) $\frac{13}{30}$

(3) $\frac{3}{10}$ (4) $\frac{7}{18}$

(5) $\frac{7}{15}$