Reasoning Ability

1. In a certain code CONQUER is written as MNBRQDT. How is STEAMER written in that code ?
   (1) DRSBQDL   (2) DSRBLDQ
   (3) DSRZQDL   (4) DSRBQDL
   (5) None of these

2. What should come next in the following number series ?
   9 1 8 2 7 3 6 4 5 9 1 8 2 7 3 6 5 9 1 8 2 7 3 5 9 1 8 2 7
   (1) 3   (2) 1
   (3) 5   (4) 8
   (5) None of these

3. 'BF' is related to 'IM' in the same way as 'HL' is related to
   (1) PT   (2) NR
   (3) OR   (4) OS
   (5) None of these

4. The positions of the first and the fifth digits in the number 83241957 are interchanged. Similarly the positions of the second and the sixth digits are interchanged and so on. Which of the following will be the third from the right end after the rearrangement ?
   (1) 1   (2) 2
   (3) 9   (4) 3
   (5) None of these

5. If '÷' means '+'; '−' means '×' ; '+' means '−' and '×' means '÷',
   then 14 − 4 × 7 ÷ 12 + 8 = ?
   (1) 20   (2) 12
   (3) $5\frac{1}{11}$ (4) 8
   (5) None of these

6. Among A, B, C, D and E each having a different amount of money, C has more money than only E, B and A. Who among them has the highest amount of money ?
   (1) C   (2) D
   (3) E   (4) Data inadequate
   (5) None of these

7. In a certain code SAGE is written as '4169' and PERT is written as '7928'. How is STEP written in that code ?
   (1) 4897   (2) 4987
   (3) 4197   (4) 4387
   (5) None of these

8. The positions of how many digits in the number 5321648 will remain unchanged after the digits are rearranged in ascending order within the number ?
   (1) None   (2) One
   (3) Two   (4) Three
   (5) More than three

9. In a certain code language, 'Monday is a holiday' is written as 'sa da pa na' and 'they enjoy a holiday' is written as 'da na ta ka'. How is 'Monday' written in that code language ?
   (1) sa   (2) pa
   (3) sa or pa   (4) Data inadequate
   (5) None of these

10. How many such pairs of digits are there in the number 531468 each of which has as many digits between them in the number as when the digits are rearranged in descending order within the number ?
    (1) None   (2) One
    (3) Two   (4) Three
    (5) More than three

11. Nikhil walked 30 m towards East, took a left turn and walked 20 m. He again took a left turn and walked 30 m. How far and in which direction is he from his starting point ?
    (1) 20 m North   (2) 80 m North
    (3) 20 m South   (4) 80 m South
    (5) Data inadequate

12. How many meaningful English words can be made with the letters NLAE using each letter only once in each word ?
    (1) None   (2) One
    (3) Two   (4) Three
    (5) More than three

13. Pointing to a girl, Subodh said, "She is the daughter of my mother's only brother". How is Subodh related to the girl ?
    (1) Cousin brother   (2) Maternal uncle
    (3) Brother   (4) Data inadequate
    (5) None of these

14. In a row of twenty students, R is fifth from the right end and T is fourth from the left end. How many students are there between R and T in the row ?
    (1) 11
    (2) 12
    (3) 10
    (4) Cannot be determined
    (5) None of the above

15. How many such pairs of letters are there in the word PERFORATE each of which has as many letters between them in the word as in the English alphabet ?
    (1) None   (2) One
    (3) Two   (4) Three
    (5) More than three

Directions (Q. 16–18) *Following questions are based on the five three-digit numbers given below.*

813   479   564   385   792

16. If the positions of the first and the second digits within each number are interchanged, which of the following will be the lowest number ?
    (1) 813   (2) 479
    (3) 564   (4) 385
    (5) 792

17. Which of the following is the second digit of the second lowest number ?
    (1) 1   (2) 7
    (3) 6   (4) 8
    (5) 9

18. Which of the following is the sum of the first and the third digits of the second highest number ?
    (1) 11   (2) 13
    (3) 9   (4) 8
    (5) None of these

Directions (Q. 19–20) *Study the following information carefully and answer the questions given below.*

(i) P × Q means 'P is mother of Q'.
(ii) P + Q means 'P is sister of Q'.
(iii) P ÷ Q means 'P is father of Q'.
(iv) P – Q means 'P is brother of Q'.

19. Which of the following means 'M is niece of R' ?
    (1) M – T + J – R   (2) T + M – K
    (3) R – T + M – K   (4) R + T ÷ M + K
    (5) None of these

20. Which of the following means 'J is paternal grandfather of W' ?
    (1) W ÷ T + J   (2) J + T × W
    (3) J × T × W   (4) J × T ÷ W
    (5) None of these

Directions (Q. 21–25) *Study the following arrangement carefully and answer the questions given below.*

H 3 R % M A δ K 2 P 5 E © N 4 W @ F & Q 1 U V 9 J I D 7 8

21. Which of the following is the sixth to the left of the fourteenth from the left end of the above arrangement ?
    (1) 2   (2) 1   (3) U
    (4) K   (5) None of these

22. If all the symbols are dropped from the above arrangement, which of the following will be the eleventh from the right end ?
    (1) Q   (2) F   (3) N
    (4) 4   (5) None of these

23. How many such numbers are there in the above arrangement, each of which is immediately preceded by a consonant and also immediately followed by a consonant ?
    (1) None   (2) One
    (3) Two   (4) Three
    (5) More than three

24. How many such numbers are there in the above arrangement, each of which is immediately preceded by a consonant and immediately followed by a symbol ?
    (1) None   (2) One
    (3) Two   (4) Three
    (5) More than three

25. What should come next in the following series based on the above arrangement ?
    3 % M   K P 5   N W @   ?
    (1) ★ 1 U   (2) Q 1 V
    (3) V 9 U   (4) Q U 9
    (5) None of these

Directions (Q. 26–30) *In each of the questions below are given four statements followed by three conclusions numbered I, II and III. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.*

26. **Statements**   All cheques are notes. All notes are tyres. All tyres are books. All books are rods.
    Conclusions   I. Some rods are notes.
                     II. Some books are tyres.
                     III. Some tyres are cheques.
    (1) Only I and II follow
    (2) Only I and III follow
    (3) Only II and III follow
    (4) All I, II and III follow
    (5) None of the above

27. **Statements**   Some pens are tables. All tables are umbrellas. Some umbrellas are sticks. All sticks are caps.
    Conclusions   I. Some caps are umbrellas.
                     II. Some umbrellas are pens.
                     III. Some sticks are pens.
    (1) Only I and II follow   (2) Only I and III follow
    (3) Only II and III follow   (4) All I, II and III follow
    (5) None of these

28. **Statements** Some lanes are poles. All poles are skies. Some skies are boxes. No box is bottle.

Conclusions I. Some bottles are lanes.
II. Some boxes are poles.
III. No bottle is lane.

(1) None follows
(2) Only I follows
(3) Only II follows
(4) Only III follows
(5) Only either I or III follows

29. **Statements** Some seeds are flowers. All flowers are trees. All trees are leaves. Some leaves are branches.

Conclusions I. Some branches are flowers.
II. Some leaves are seeds.
III. Some leaves are flowers.

(1) Only I and II follow
(2) Only I and III follow
(3) Only II and III follow
(4) All I, II and III follow
(5) None of the above

30. **Statements** All roads are buses. Some buses are cars. Some cars are days. All days are nights.

Conclusions I. Some nights are buses.
II. Some nights are cars.
III. Some days are buses.

(1) None follows
(2) Only I follows
(3) Only II follows
(4) Only III follows
(5) Only I and II follow

Directions (Q. 31–35) *Study the following information carefully and answer the questions given below.*

P, Q, R, S, T, V, W, Y and Z are sitting around a circle facing the center. V is second to the left of P who is third to the left of Y. S is fourth to the left of P. T is third to the right of Q who is the immediate right of V. W is fourth to the right of Z.

31. Who is third to the left of S ?
(1) Y
(2) W
(3) T
(4) Data inadequate
(5) None of these

32. In which of the following pairs is the first person sitting to the immediate right of the second person ?
(1) VQ
(2) ZV
(3) SZ
(4) RS
(5) YT

33. In which of the following combinations is the first person sitting in between the second and the third persons ?
(1) RSZ
(2) YTW
(3) WPQ
(4) VZQ
(5) PQV

34. Who is third to the right of W ?
(1) S
(2) R
(3) V
(4) Z
(5) Data inadequate

35. Who is second to the right of Z ?
(1) Q
(2) P
(3) W
(4) Data inadequate
(5) None of these

Directions (Q. 36–40) *In each question below is given a group of letters followed by four combinations of digits/symbols numbered (1), (2), (3) and (4). You have to find out which of the combinations correctly represents the group of letters based on the following coding system and conditions that follow and mark the number of that combination as your answer. If none of the combinations correctly represents the group of letters, mark (5) ie, 'None of these' as your answer.*

Letter : R D E K A F H I U B M Z W J
Digit/Symbol Code : 7 1 ★ 2 % 3 8 © 4 @ 9 5 6 $

Conditions (i) If the first and the third letters are vowels, both are to be coded as the code for the third letter.
(ii) If the first and the fourth letters are consonants both are to be coded as the code for the first letter.
(iii) If the first letter is a vowel and the last letter is a consonant, their codes are to be interchanged.

36. EBAJWU
(1) ★@%$64
(2) 4@%$6★
(3) ★@★$64
(4) %@%$64
(5) None of these

37. JBHMR
(1) $@©397
(2) 7@©39$
(3) $@$397
(4) 3@©$97
(5) None of these

38. DEKRBJ
(1) 7★27@$
(2) 1★21@$
(3) $★27@1
(4) 1★27@$
(5) None of these

39. UZMKEF
(1) 3592★4
(2) 4592★3
(3) 4594★3
(4) 9592★3
(5) None of these

40. HIREBW
(1) 8©78@6
(2) 7©7★@6
(3) 8©7★@6
(4) 6©7★@8
(5) None of these

Directions (Q. 41–45) *Study the following information carefully and answer the given questions.*

A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement.

Input : rose petal 29 32 86 goal 41 toll
Step I : 29 rose petal 32 86 goal 41 toll
Step II : 29 toll rose petal 32 86 goal 41
Step III : 29 toll 32 rose petal 86 goal 41
Step IV : 29 toll 32 rose 41 petal 86 goal
and Step IV is the last step of the rearrangement.

41. Step III of an input is : 15 yes 24 80 today never go 59
Which of the following will definitely be the input ?
(1) 24 80 today never go 59 15 yes
(2) 24 80 today yes never go 59 15
(3) 24 15 yes 80 today never go 59
(4) Cannot be determined
(5) None of the above

42. Input : man 79 over 63 like 43 joy 15
How many steps will be required to complete the rearrangement ?
(1) Six   (2) Seven
(3) Eight   (4) Nine
(5) None of these

43. Step III of an input : 18 tower 38 basket 82 76 hall new
Which of the following will be step VII ?
(1) 18 tower 38 hall 76 new basket 82
(2) 18 tower 38 new 76 hall 82 basket
(3) 18 tower 38 hall 76 new 82 basket
(4) There will be no such step
(5) None of the above

44. Input : 94 join for 81 style home 32 48
Which of the following steps will be the last ?
(1) VI   (2) V
(3) VII   (4) IX
(5) None of these

45. Step II of an input : 27 world go 57 48 stem 35 kite
How many more steps will be required to complete the rearrangement ?
(1) Five   (2) Four
(3) Three   (4) Six
(5) None of these

Directions (Q. 46–50) *In the following questions, the symbols* δ, ★ %, @ *and* # *are used with the following meaning as illustrated below.*
'A % B' means 'A is neither greater than nor equal to B'.
'A # B' means 'A is neither smaller than nor equal to B'.
'A δ B' means 'A is neither smaller than nor greater than B'.
'A ★ B' means 'A is not smaller than B'.
'A @ B' means 'A is not greater than B'.
Now in each of the following questions assuming the given statements to be true, find which of the three conclusions I, II and III given below them is/are definitely true and give your answer accordingly.

46. **Statements**   P ★ D, D # Q, Q @ R
Conclusions   I. Q % P
            II. R # D
            III. P # D
(1) None is true   (2) Only I is true
(3) Only II is true   (4) Only III is true
(5) None of these

47. **Statements**   M # R, R % P, P δ J
Conclusions   I. M # P
            II. J # R
            III. J % M
(1) None is true   (2) Only I is true
(3) Only II is true   (4) Only III is true
(5) Only II and III are true

48. **Statements**   F δ D, D ★ K, K # M
Conclusions   I. M % D
            II. K @ F
            III. F # M
(1) Only I and II are true   (2) Only I and III are true
(3) Only II and III are true   (4) All I, II and III are true
(5) None of these

49. **Statements**   T % M, M @ K, K ★ F
Conclusions   I. F % M
            II. F % T
            III. K # T
(1) Only III is true
(2) Only II is true
(3) Only I is true
(4) Only II and III are true
(5) All I, II and III are true

50. **Statements**   H @ K, K δ N, N % T
Conclusions   I. T # K
            II. N δ H
            III. H % N
(1) Only I is true
(2) Only II is true
(3) Only III is true
(4) Only either II or III is true
(5) Only either II or III and I are true

Directions (Q. 51–60) *Study the following information carefully and answer the questions given below.*
Following are the conditions for selecting Trainee Officers in an organisation :
The candidate must—
(i) be a graduate in any discipline with at least 55 per cent marks
(ii) have secured at least 60 per cent marks in the XII Std. examination
(iii) be at least 22 years and not more than 29 years as on 1.1.2010
(iv) have secured at least 40 per cent marks in the selection examination
(v) have secured at least 50 per cent marks in the personal interview
(vi) be ready to sign a bond for two years.
In the case of candidate who satisfies all the conditions except
(a) at (i) above, but is a qualified Cost Accountant/Chartered Accountant, the case is to be referred to ED.
(b) at (v) above, but has secured at least 60 per cent marks in the selection examination, the case is to be referred to Chairman.
In each question below are given details of one candidate. You have to take one of the courses of actions based on the information provided and the conditions and sub-conditions given above and mark the number of that course of action as your answer. You are not to assume anything other than the information provided in each question. All these cases are given to you as on 1.1.2010.
Mark answer (1) if the candidate is to be selected.
Mark answer (2) if the candidate is not to be selected.

Mark answer (3) if the case is to be referred to ED.
Mark answer (4) if the case is to be referred to Chairman.
Mark answer (5) if the data provided are not adequate to take a decision.

51. Susan D'Souza has secured 62 per cent marks in XII Std. and 59 per cent marks in B.A. She was born on 15th July 1984. She has secured 50 per cent marks in both the selection examination and personal interview. She is ready to sign bond for two years.

52. Archana Sahu was Born on 8th May 1986. She has secured 60 per cent marks in both XII Std. and B.Sc. She is ready to sign bond for two years. She has secured 40 per cent marks in the personal interview and 50 per cent in the selection examination.

53. Atul Garg was born on 2nd December 1980. He has secured 56 per cent marks in B.Sc. and 63 per cent marks in XII Std. He has also secured 55 per cent marks in both the selection examination and personal interview. He is ready to sign bond for two years.

54. Meena Gogoi was born on 14th March 1985. She has secured 62 per cent marks in XII Std. and 65 per cent marks in the selection examination. She has also secured 58 per cent marks in graduation and 48 per cent marks in personal interview. She is ready to sign bond for two years.

55. Sudhakar Bagchi was born on 4th November 1982. He has secured 67 per cent marks in XII Std. and 50 per cent marks in graduation. He has also successfully qualified as Chartered Accountant. He has secured 50 per cent marks in both the selection examination and personal interview. He is ready to sign bond for two years.

56. Ashok Pradhan has secured 56 per cent marks in graduation and 63 per cent marks in XII Std. He was born on 12th December 1986. He has secured 45 per cent marks in the selection examination and 55 per cent marks in the personal interview.

57. Antara Ghosh was born on 2nd December 1981. She has secured 60 per cent marks in both the selection examination and personal interview. She has secured 62 per cent marks in XII Std. and 57 per cent marks in B.Sc. She is ready to sign bond for two years.

58. Navin Malhotra was born on 3rd August 1987. He has secured 68 per cent marks in XII Std. and 50 per cent marks in B.A. He has secured 50 per cent marks in personal interview and 40 per cent marks in the selection examination. He is qualified Cost Accountant. He is ready to sign bond for two years.

59. Abhinav Shukla has secured 70 per cent marks in XII Std. and 58 per cent marks in B. Com. He was born on 15th September 1984. He has secured 65 per cent marks in the selection examination and 48 per cent marks in the personal interview. He is ready to sign bond for two years.

60. Suresh Das is ready to sign bond for two years. He is first class graduate in science. He was secured 50 per cent marks in personal interview and 40 per cent marks in the selection examination. He was born on 25th April 1982. He got 10 per cent more marks than his friend in XII Std.

Directions (Q. 61–65) *Study the following information carefully and answer the questions given below.*

A, B, C, D, E, F, G and H are eight persons working in three different departments *viz* operations, sales and finance of an organization with at least two and not more than three in any department. They are in three different scales *viz*, I, II and III with at least two in any one scale. Both the employees in operations department are in scale II. D works in sales department and belongs to Scale I. A works in Finance department and does not belong to Scale I. Two employees in Sales department belong to one scale. F works with only H in one of the departments. C works with E in one of the departments. B does not work with either C or A in the same department. G does not belong to Scale III. E does not belong to Scale I.

61. G belongs to which scale ?
    (1) II   (2) III
    (3) I   (4) I or II
    (5) None of these

62. H belongs to which scale ?
    (1) I   (2) II
    (3) III   (4) Data inadequate
    (5) None of these

63. Which of the following combinations is correct ?
    (1) Operation – F – 1   (2) Operation – H – III
    (3) Sales – B – II   (4) Finance – E – III
    (5) All are correct

64. C belongs to which scale ?
    (1) I   (2) II
    (3) III   (4) I or II
    (5) None of these

65. Which of the following groups of employees work in sales department ?
    (1) DBE   (2) DBC
    (3) DBG   (4) Data inadequate
    (5) None of these

Directions (Q. 66–70) *Below is given a passage followed by several possible inferences which can be drawn from the facts stated in the passage. You have to examine each inference separately in the context of the passage and decide upon its degree of truth or falsity.*

Coal and power are the mainstays of India's energy sector. Coal is the country's backbone of energy supply and is likely to continue playing a significant role in meeting energy demands. It accounts for over 50 per cent of the commercial energy requirements in the country. Despite reported figures of a relatively large coal resource compared with other fossil fuels, the country has been facing shortages from time to time. Projections for coal by various study groups show an increasing gap between the demand and supply of domestic coal, which may result in increased imports. Moreover, the country's resources are often overstated as assessment process does not consider the quality, technical feasibility and economic viability of coal mining and exploration.

Mark answer (1) if the inference is '**definitely true**' ie, it properly follows from the statements of facts given.