Date: 05/11/2017

Max. Marks: 50   SOLUTIONS   **Time allowed: 45 mins**

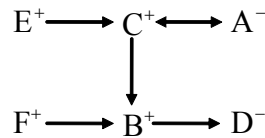**Q1-6** Study the following information and answer the questions given below it.

All the six members of a family A, B, C, D, E and F are travelling together. B is the son of C but C is not the mother of B. A and C are a married couple. E is the brother of C. D is the daughter of A. F is the brother of B.

1. How many male members are there in the family?

(1) 1   (2) 2   (3) 3   (4) 4

Ans. *(4)*

Sol.

$$E^+ \longrightarrow C^+ \longleftarrow A^-$$
$$\downarrow$$
$$F^+ \longrightarrow B^+ \longrightarrow D^-$$

Male members = E, C, F, B = **4**

2. Who is the mother of 'B'?

(1) D   (2) F   (3) E   (4) A

Ans. *(4)*

Sol. Option (4) is correct.

3. How many children does 'A' have?

(1) One   (2) Two   (3) Three   (4) Four

Ans. *(3)*

Sol. 3 Childrens F, B, D

4. Who is the wife of 'E'?

(1) A   (2) F   (3) B   (4) cannot be determined

Ans. *(4)*

Sol. Option (4) is correct.

5. Which of the following is a pair of females?

(1) AE   (2) BD   (3) DF   (4) AD

Ans. *(4)*

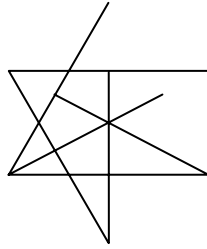**Sol.** A & D are females

6. How is 'E' related to 'D'?

(1) Father   (2) Brother   (3) Uncle   (4) cannot be determined

Ans. *(3)*

Sol. E is uncle of D.

7. How many triangles are there in the given figure?

(1) 26   (2) 24   (3) 22   (4) 27

Ans. **(4)**

Sol. Option (4) is correct.

8. In the given question choose the correct mirror image from amougst the four alternatives.

PRACTICE

(1) ƎƆITƆARꟼ   (2) ꟼRAƆTIƆE   (3) PRACTICE   (4) ƎƆITƆARꟼ

Ans. **(1)**

Sol. Option (1) is correct.

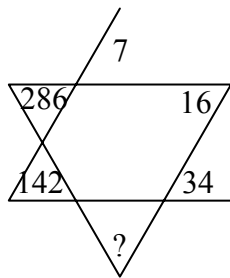**9.** In the given question choose the correct water image from amongst the four alternatives.

MUMBAI

(1) W∩WB∀I   (2) I∀BMUM   (3) W∩WB∀I   (4) W∩WB∀I

Ans. **(1)**

Sol. Option (1) is correct.

10. Study the pattern of numbers in the following questions and seclect the missing numbers in the place of question mark (?). Mark the correct alternative on your answer-sheet as directed.

(1) 72   (2) 70   (3) 68   (4) 66

Ans. **(2)**

Sol. $7 \times 2 + 2 = 16$, $16 \times 2 + 2 = 34$, $34 \times 2 + 2 = \mathbf{70}$, $70 \times 2 + 2 = 142$, $142 \times 2 + 2 = 286$

Q11-20 In each of the following questions, a series of number / alphabets is given which follow certain rules. One of the number / alphabet is missing. Choose the missing number / alphabets from the alternatives given below and mark it on your answer-sheet as directed.

11. 121, 225, 361, ?

(1) 529 (2) 484 (3) 441 (4) 729

Ans. *(1)*

Sol. $11^2, 15^2, 19^2, \mathbf{23^2}$

12. 18, 24, 21, 27, ?, 30, 27

(1) 33 (2) 30 (3) 24 (4) 21

Ans. *(3)*

Sol. First series 18, 21, **24**, 27

Second series 24, 27, 30

13. 14, 19, 29, 49, 89, ?

(1) 139 (2) 149 (3) 159 (4) 169

Ans. *(4)*

Sol. Gap is $+5, +10, +20, +40, \mathbf{+80},$

14. m _ pl _ pplmp _ lmpp _

(1) pmpl (2) lmpl (3) pmml (4) lmml

Ans. *(1)*

Sol. pmpl

15. p _ pq _ qrqr _ rprp _

(1) qrqr (2) qrrp (3) prqp (4) qrpq

Ans. *(4)*

Sol. qrpq

16. psr, q _ sr, qp _ r, qps _

(1) pqrs (2) psrp (3) qpsr (4) qspr

Ans. *(3)*

Sol. qpsr

17. KLM _, KL _ N, K _ MN, _ LMN

(1) NMLK (2) KLMN (3) LKNM (4) KLNM

Ans. *(1)*

Sol. NMLK

18. _ XX _ Y _ XYYX _ Y

(1) YYXY (2) YXYX (3) XYYX (4) YYXX

Ans. *(4)*

Sol. YYXX

19. ELFA, GLHA, ILJA, ____, MLNA

(1) OLPA (2) KLMA (3) LLMA (4) KLLA

Ans. *(4)*

Sol. KLLA

20. PON, RQP, TSR, VUT, ?

| (1) WUY | (2) YXZ | (3) XWV | (4) UVW |

Ans. *(3)*

Sol. XWV

Q 21-25 Read the following information carefully and answer the questions given below :

21. Who is the horticulturist?

| (1) A | (2) B | (3) C | (4) D |

Ans. *(1)*

22. Who is the industrialist?

| (1) E | (2) C | (3) B | (4) A |

Ans. *(3)*

23. Which of the following groups includes a person who likes tea but is not an advocate?

| (1) ACE | (2) DE | (3) BCE | (4) None of these |

Ans. *(4)*

24. Who is physicist?

| (1) A | (2) E | (3) D | (4) C |

Ans. *(4)*

25. Which of the statements given above is superfluous?

| (1) (iii) | (2) (iv) | (3) (ii) | (4) None of these |

Ans. *(4)*

Sol of 21-25

Person	A	B	C	D	E
Profeesion	Hort.	Indust.	Phys.	Journa.	Advocate
Choice	Tea	Coffee	Tea	Coffee	Tea

26. In a cricket match five batsman A, B, C, D and E scored an average of 36 runs. D scored 5 more than E; E scored 8 fewer than A; B scored as many as D and E combined; and B and C scored 107 between them. How many runs did E score?

| (1) 62 | (2) 45 | (3) 28 | (4) 20 |

Ans. *(4)*

Sol. Average of ABCDE = 36 runs.

Sum of runs of ABCDE $= 36 \times 5 = 180$

$D = 5 + E$, $E = A - 8$, so $A = E + 8$, $B = D + E$, so $B = 5 + 2E$

$B + C = 107$, so $C = 107 - 5 - 2E = 102 - 2E$, so $A + B + C + D + E = 180$

Now, put the values of ABCDE

$E + 8 + 5 + 2E + 102 - 2E + 5 + E + E = 180$

So $E = 20$.

27. Five bells begin to toll together and toll respectively at intervals of 6, 5, 7, 10 and 12 seconds. How many times will they toll together in one hour excluding the one at the start?

| (1) 7 time | (2) 8 times | (3) 9 times | (4) 11 times |

Ans. *(2)*

Sol. LCM of $(6, 5, 7, 10, 12) = 420 \sec = 7 \min$

So in duration of 1 hour they toll together 8 times. $(60 \min / 7 \min = 8)$

28. There are Deer and Peacock in a zoo. By counting heads they are 80. The number of their legs is 200. How many Peacock are there?

    (1) 20   (2) 30   (3) 50   (4) 60

Ans. *(4)*

Sol. $D + P = 80$ ... (1)

$4D + 2P = 200$ ... (2)

$\therefore$ Solving both euq. (1) & (2), $D = 20$ & $P = 60$.

29. A is 3 years younger than C but one year older than D. D is one year older than B but 4 years younger than C. C is 15 years old. What is the age of B in years?

    (1) 10   (2) 11   (3) 12   (4) 13

Ans. *(1)*

Sol. $A = C - 3 = D + 1$ .... (1)

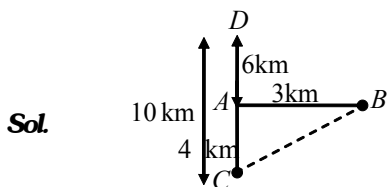$D = B + 1 = C - 4$ .... (2)

$C = 15$ .... (3)

$\therefore$ Solving these equation $B = 10$.

30. Kunal walks 10 kilometers towards North. From there, he walks 6 kilometers towards South. Then he walks 3 kilometers towards East. How far and in which direction is he with reference to his starting points?
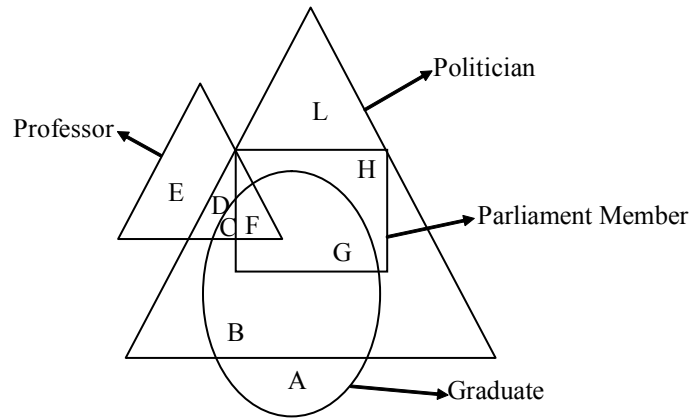
    (1) 5 km West   (2) 5 km North-East   (3) 7 km. East   (4) 7 km West

Ans. *(2)*

Sol.

In triangle ABC, $BC^2 = (AB)^2 + (AC)^2$, so $BC = 5\textbf{km}$ (NE)

Q31-35 Study the diagram below and give the answer to the questions which follows

31. Who among the following is Graduate or Professor but not Politician?

(1) B,G　　　(2) G,H　　　(3) A, E　　　(4) E, F

Ans. **(3)**

Sol. A, E

32. Who among the following politician is graduate but not parliament member?

(1) B　　　(2) L, B　　　(3) D, L　　　(4) A, H, L

Ans. **(1)**

Sol. B

33. Who among the following politicians are those who is neither a professor nor a graduate?

(1) E, F　　　(2) D, E　　　(3) C, D　　　(4) L, H

Ans. **(4)**

Sol. L, H

34. Who among the following parliamentarian are those who is also a politician and graduate and also a professor?

(1) G　　　(2) F　　　(3) C　　　(4) H

Ans. **(2)**

Sol. F

35. Who among the following graduate are those who is a politician and also a professor?

(1) F　　　(2) C　　　(3) B, F　　　(4) C,G

Ans. **(2)**

Sol. C

36. If in a certain code, SENIOR is written is NZIDJM. Then which word is written in the same code as XDODUZI.

(1) CISTERN　　　(2) INQUIRE　　　(3) CITIZEN　　　(4) SUSTAIN

Ans. **(3)**

Sol. +5, +5, +5, +5, +5, +5, +5, so answer is CITIZEN

37. If SYSTEM is code as SYSMET and NEARER as AENRER, then FRACTION will be coded as :

(1) CARFNOIT　　　(2) NOITFRAC　　　(3) FRACNOIT　　　(4) CARFTION

Ans. *(1)*

Sol. Divided the word in half parts and reverse them. so answer is CARFNOIT.

38. If RED is coded as 6720, then how would GREEN be coded?

(1) 1677199   (2) 1677209   (3) 16717209   (4) 9207716

Ans. *(2)*

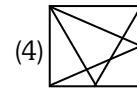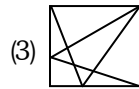*Sol.* Reverse the word and add +2 in their place values. so answer is 1677209.
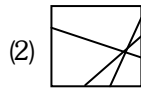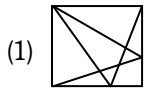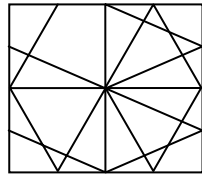
39. Taj Mahal is related to love in the same way as Jallianwala Bagh is related to _____ ?

(1) Peace   (2) Truth   (3) War   (4) Martyrdom

Ans. (4)

Sol. Martyrdom

40. Find out the correct image in place of question marks (?) from the given alternatives.

Ans. (4)

41. How many 7's immediately preceded by 6 but not immediately followed by 4 are there in the following series?

(1) 1 (one)   (2) 2 (two)   (3) 4 (four)   (4) 6 (six)

Ans. (2)

Sol. Pairs are 675 and 672.

42. Institute : Academy : : Decree : ?

(1) Blame   (2) Court   (3) Judge   (4) Mandate

Ans. (4)

Sol. Both words are Synonyms.

43. Young : Old : : ? : Wide

(1) Insufficient   (2) Big   (3) Narrow   (4) Long

Ans. (3)

Sol. Both words are Antonyms.

44. 63 : 80 : : 120 : ?

(1) 125   (2) 137   (3) 170   (4) 180

Ans. *(2)*

Sol. Add +17 in first no. to get second no.

45. $5 : 124 :: 7 : ?$

    (1) 125   (2) 248   (3) 342   (4) 343

Ans. *(3)*

Sol. Second number is equal to (1st number) $^3 - 1$. So answer is 342.

46. TEKCAR : RACKET :: TCEJBO : ?

    (1) TCEOBJ   (2) OBJECT   (3) CEJBOT   (4) REJECT

Ans. *(2)*

Sol. Reverse the letters.

47. BDFH : JLNP :: RTVX : ?

    (1) BDHF   (2) BDFZ   (3) ZBDF   (4) YZAB

Ans. *(3)*

Sol. Add +8 to place values to get the code.

48. $\dfrac{K}{T} : \dfrac{20}{11} :: \dfrac{G}{L} : ?$

    (1) $\dfrac{7}{11}$ (2) $\dfrac{11}{7}$ (3) $\dfrac{8}{13}$ (4) $\dfrac{12}{7}$

Ans. *(4)*

Sol. According to place values of letters.

49. If 'x' means '−' '÷' means 'x', '−' means '+' and '+' means '÷' then

    $8 \div 4 \times 2 - 4 + 2 = ?$

    (1) 2   (2) 28   (3) 32   (4) 36

Ans. *(3)*

Sol. 32

50. If $L = +, M = -, N = \times, P = \div$ then

    14N10L42P2M8 =

    (1) 158   (2) 153   (3) 248   (4) 251

Ans. *(2)*

Sol. 153