Date: 04-11-18

Max. Marks: 100   **SOLUTIONS**   **Time allowed: 120 mins**

Direction : In each of the questions **1** to **4** a letter series is given with one term missing shown by question mark (?). This term is one of four alternatives given under it. Find the right alternative.

1. Complete the series.

Z1A, X2D, V6G, T21J, R88M, P445P, ?

(1) N2676S   (2) N2676T   (3) T2670N   (4) T2676N

Ans. (1)

Sol. According to place values of letters option (1) is correct.

2 Which of the following can replace the missing number is place of question mark?

1	2	3
6	7	8
12	14	?

(1) 16   (2) 22   (3) 23   (4) 24

Ans. (1)

Sol. In first column $(1+6)+5=12$. Same as in column third $(3+8)+5=16$.

Q. 3-5.

Read the following information and answer the questions based on it.

There were five teachers in a school. 'A' and 'B' taught Hindi and English both. 'C' and 'B' taught English and Geography both. 'D' and 'A' taught Math and Hindi both. 'E' and 'B' were the teachers of History and French.

3. Which teacher taught the maximum subject.

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

Ans. (2)

4. Which subject was taught by more than two teachers.

(1) French   (2) Hindi   (3) History   (4) Geography

Ans. **(2)**

5. Among the teacher who taught less than two subjects.

(1)   A   (2)   B   (3)   D   (4)   None

Ans. **(4)**

Solution 3 to 5

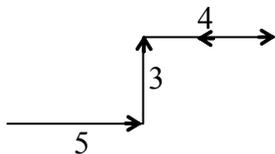| Subject / Person	A	B	C	D	E
Hindi	Yes	Yes		Yes	
English	Yes	Yes	Yes		
Gerography		Yes	Yes	No	
Maths	Yes			Yes	
History		Yes			Yes
French		Yes			Yes

Ans. **(4)**

6. Shyam travel 5 km. in the East direction and then turns left and travels 3 km. He again turns right and travels 4 km. After that he turns back direction. now in which direction is he travelling.
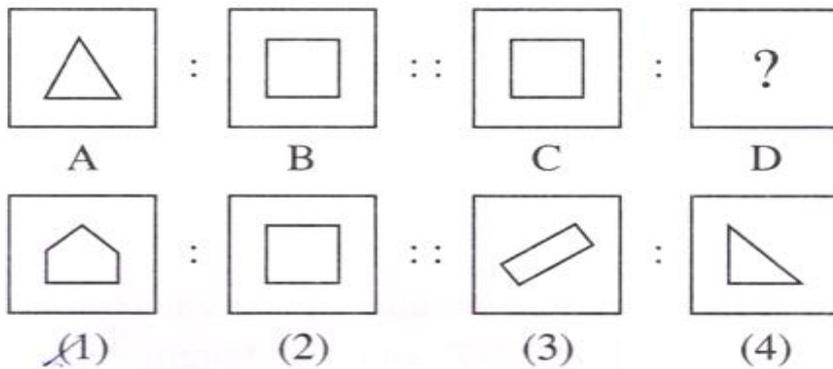
(1) East   (2) West   (3) North   (4) South

Ans. **(2)**

Sol.

7. In the following questions. There are gour figures A, B, C and D called analogous figures. A and B are related in the same way and C and D are related. Which figure out of four given options will come in place of figure D?
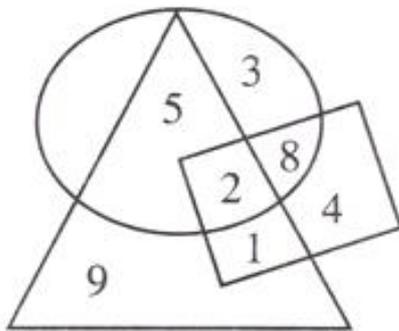
Ans. (1)

Sol. By observation second figure has one side greater than first figure.

Q. 8-10.

Study the following diagram to answer the following questions.

8. Find out the number that lies inside all the figure.

    (1) 2   (2) 5   (3) 9   (4) None

Ans. (1)

9. What are the numbers that lies inside any two figures?

    (1) 2, 1   (2) 5, 1   (3) 5, 9   (4) 9, 1

Ans. (2)

10. Find out the number that lies only inside the triangle figure.

    (1) 1   (2) 2   (3) 5   (4) 9

Ans. (4)

11. Which letters replaces the Question mark?

    AZ, GT, MN, ?, YB

    (1) JH   (2) SH   (3) SK   (4) TS

Ans. (2)

Sol. By observation 2 is correct.

12. 13, 32, 24, 43, 35, ?, 46, 65, 57, 76

    (1) 45   (2) 52   (3) 54   (4) 55

Ans. (2)

Sol. Alternate series, $+11$ added to alternate terms.

13. 2, 8, 18, 32, 50, ?

    (1) 72   (2) 100   (3) 98   (4) 96

Ans. (1)

Sol. Triangular series.

14. If HANDKERCHIEF is coded as FEIHCRHANDKE then PERMEABILITY is coded as?

    (1) BILITYPERMEA   (2) YTILIBAEMREP

    (3) BILITYAEMERP   (4) YTILIBPERMEA

Ans. (4)

Sol. By observation it is rearrangement of letters.

15. 'O' is smaller than 'P', but bigger than 'Q'. 'R' is smaller than 'S' but bigger than 'T'. 'Q' is bigger than 'S'. Who is the biggest them?

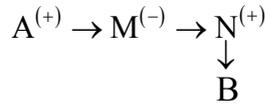   (1) Q   (2) T   (3) P   (4) R

Ans. (3)

Sol. $T < R < S < Q < O < P$

16. ' $x + y$ ' means 'x' is the mother of 'y', ' $x - y$ ' means 'x' is the brother of 'y', ' $x \div y$ ' means 'x' is the father of 'y', ' $x \times y$ ' means 'x' is the sister of 'y'. Then which of the following given options means 'A' is the uncle of 'B'.
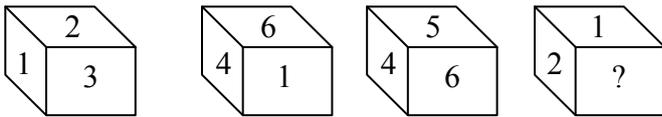
    (1) $A - M + N \div B$ (2) $B \div M + N \times A$

    (3) $A + M - N \times B$ (4) $A - M \times N \div B$

Ans. (4)

Sol.

$$A^{(+)} \to M^{(-)} \to N^{(+)}$$
$$\downarrow$$
$$B$$

17. Find the missing number of the dice given below.

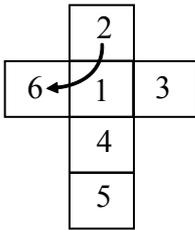(1) 4   (2) 6   (3) 5   (4) None of these

Ans. (2)

Sol. From dice 1 and 2.

From clockwise rotation answer is option (2).

18. If $841 = 3$, $633 = 5$, $425 = 7$, then $217 = ?$

(1) 6   (2) 7   (3) 8   (4) 9

Ans. (4)

Sol. $8/4 + 1 = 3$, $6/3 + 3 = 5$, $4/2 + 5 = 7$, same as $2/1 + 7 = 9$.

19. Three words are given in this question which have something in common among themselves. Out of the four given alternatives, choose the most appropriate description about these three words.

(1) They have been the Capitals of the Country

(2) They have exquisite temples

(3) They have religious background

(4) They are situated on the bank of river Jamuna

Ans. (4)

20. In the given questions, four pairs of words are given out of which three pairs of words bears a certain relationship. Choose the pair in which the words are differently related?

    (1) Shoe : Leather   (2) Iron : Axe   (3) Table : Wood   (4) Shit : Fabric

Ans. (2)

Sol. By observation.

Q. 21-23

In each of the following questions, four group of words/letters are given. Three of them are alike in some manner, while one is different. Find the odd-one-out and mark it one your answer-sheet as directed.

21. (1) Medium   (2) Average   (3) Mediocre   (4) Terrible

Ans. (4)

22. (1) ZGPKU   (2) FRGSP   (3) NEXFL   (4) LANCP

Ans. (2)

Sol. Expect 2 all options have one vowel.

23. FLRXD   (2) ECGSY   (3) JPVBH   (4) NTZFL

Ans. (2)

Sol. Expect 2 all options have difference of $+6$ between them.

Q 24-28

Read the following information carefully and answer the question given below.

(i) A, B, C, D, E, F and G are sitting around a circle and facing at the centre.

(ii) G' is second to the left of 'C' who is to the immediate left of 'F'.

(iii) 'A' is third to the left of 'E'.

(iv) 'B' is between 'D' and 'E'.

24. Which is the following is false?

    (1) 'A' is fourth to the right of 'E'.   (2) ' G' is to the immediate right of 'D'.

    (3) 'F' is fourth to the right of 'D'.   (4) 'B' is to the immediate left of 'D'.

Ans. (1 and 3) NA

25. Which of the following is true?

    (1) 'C' is fourth to the right of 'B'.   (2) 'A' is to the immediate right of 'G'.

    (3) 'D' is second to the left of 'E'.   (4) 'B' is to the immediate left of ' D'.

Ans. (4)

26. Which of the following pairs is the first person sitting to the immediate left of the second person?

    (1) BE   (2) CA   (3) GD   (4) DG

Ans. (4)

27. Which of the following has the middle person sitting between the remaining two?

    (1) FCE   (2) EFB   (3) DEB   (4) None of these
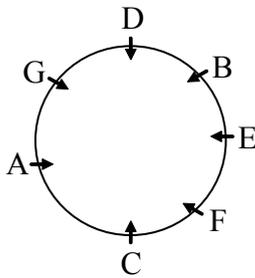
Ans. (4)

28. Which of the following is the position of 'F'?

    (1) Fourth to the right of 'D'.   (2) To the immediate left of 'C'.

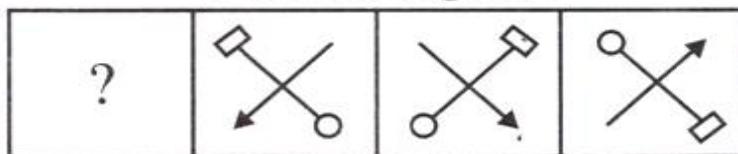   (3) Between 'A' and 'E'.   (4) None of these
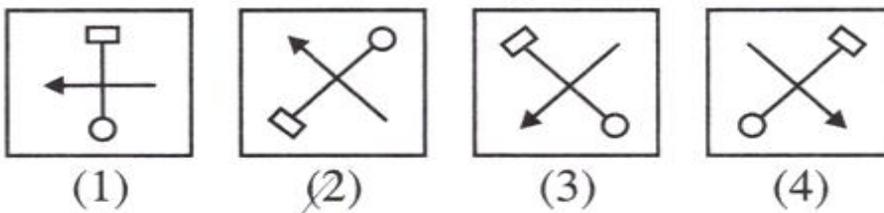
Ans. (4)

Solution 24 to 28

Q   **29-30.**

Select a suitable figure from the answer figures that would replace the question mark (?)

Ans. (2)

30.

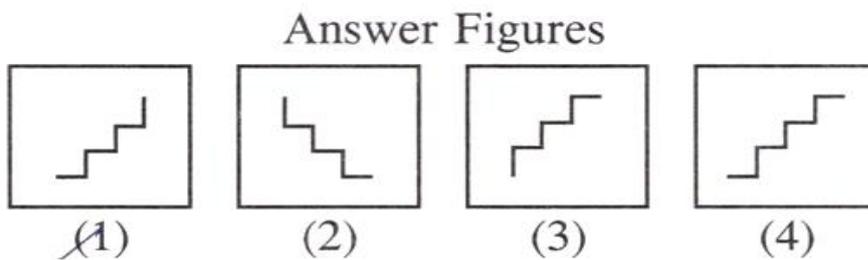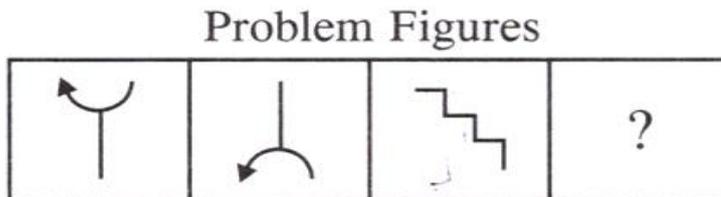Problem Figures

Answer Figures

(1)　　　　　(2)　　　　　(3)　　　　　(4)

Ans. (4)

Sol. By observation.

31. There are 39 students in a class. In sitting arrangement, the position of Suresh is Seventh position before Ashok. If position of Ashok is 17th from the last. Then what is the position of Suresh from the beginning.

(1) 14th　　　　(2) 15th　　　　(3) 16th　　　　(4) 24th

Ans. (3)

Sol. Total = starting + ending -1. $39 =$ start $+ 24 - 1$, Start $= 16$.

32. Five years ago a man was seven times as old as his son. Five years hence, the father will be three times as old as his son. Find their present ages.

(1) 10 yrs., 45 yrs.　　(2) 10 yrs., 40 yrs.　　(3) 12 yrs. 40 yrs.　　(4) 12 yrs. 45 yrs.

Ans. (2)

Sol. Let present age of man $= x$,

Let present age of sun $= y$

five yrs. ago, $x - 5 = 7(y - 5) \implies x - 7y = -30$

five years hence, $x + 5 = 3(y + 5) \implies x - 3y = 10$

After solving these equation $x = 40$ yrs.

Q. 33-38

In the following questions, arrange the given words in the sequence in which they occur in the dictionary and then choose the correct sequence and mark it on your answer sheet as directed.

33.   A   Cresentic   B Creeper   C Credulous   D Crepuscular

      E   Crescendo

      (1) CBDEA   (2) AEDBC   (3) EADBC   (4) DBCAE

Ans. (1)

34.   A   Genitive   B Geneticist   C Gemini   D Gendrame

      E   Geniality

      (1) ADBCE   (2) DBCEA   (3) CDBAE   (4) ABCDE

Ans. NA

35.   A.   Intransitive   B. Intolerable   C. Intramundane   D. Intramural

      E.   Introvert

      (1) BDCEA   (2) EADCB   BCDAE   (4) AEBCD

Ans. (3)

36.   A   Louver   B Lounge   C Lumpish   D Lunation

      E   Luculent

      (1) ABDEC   (2) EDBAC   (3) DEBAC   (4) BAECD

Ans. (4)

37.   A   Misadvantage   B Miscellany   C Misbegotten   D Misalliance

      E   Misdemeanor

      (1) ADCBE   (2) ACDBE   (3) ABCDE   (4) CDABE

Ans. (1)

38.   A   Genuine   B Genesis   C Gender   D Gentle

      E   General

      (1) DECBA   (2) BFCAD   (3) CEBDA   (4) AEDCB

Ans. (3)

39.   If 'R' means T, 'U' means 'R', 'E' means 'T 'S' means 'P', P' means 'U', "T means and T means 'E'. Then how would you write 'PERSUIT'?

      (1) UITPRES   (2) UTIPRES   (3) UTPPERS   (4) UIIPRES

Ans. (2)

40. Choose the correct water-image of the given words from amongst the alternatives
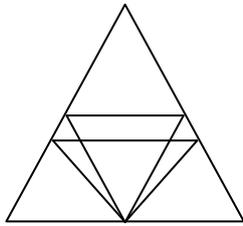
    (1) UNITED   (2) UNITED   (3) UNITED   (4) UNITED

Ans. (1)

41. REFLECTION

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

Ans. (2)

42. A Geometrical design has been drawn below. Find out the total number of triangle.

    (1) 12   (2) 18   (3) 22   (4) 26

Ans. (2)

Q   43-52

    Complete the series

43. Q, N, K, ?, E

    (1) H   (2) I   (3) J   (4) D

Ans. (1)

Sol. Difference of –3 in place value.

44. CG, DI, ?, IP, MU

    (1) HS   (2) IK   (3) FL   (4) EL

Ans. (3)

Sol. By observation.

45. 17Z5, 15X4, 13VB, 9R1

    (1) 12SR   (2) 11T2   (3) 12TQ   (4) 14EL

Ans. (2) NA

46. AB. BA, ABD, DBA, PQRS?

   (1) SRTQ   (2) SRQP   (3) TQRS   (4) ELGC
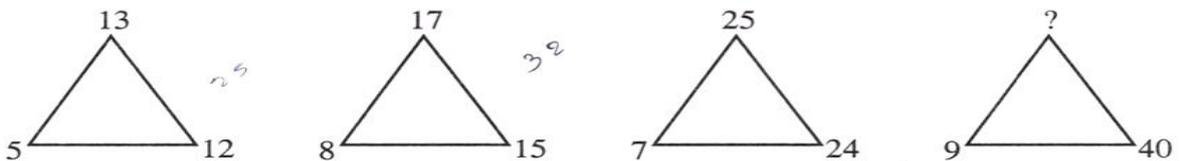
Ans. (2)

Sol. Second term is reverse of first term.

47. FLP, INS, LPV, ?

   (1) ORY   (2) QPS   (3) QRS   (4) PGC

Ans. (1)

Sol. By observation.

48. Find the number in the position of '?'

   (1) 40   (2) 45   (3) 41   (4) 54

Ans. (3)

Sol. Using Pythagoras $5^2 + 12^2 = 13^2$, same as $9^2 + 40^2 = 41^2$.

49. Find the next number in the sequence 6, 24, 60, 120, ...

   (1) 140   (2) 210   (3) 240   (4) 180

Ans. (2)

Sol. Triangular series.

50. Find the missing number in the series 2, 10, 26, ..., 242

   (1) 80   (2) 81   (3) 82   (4) 83

Ans. (3)

Sol. $2 \times 3 + 4 = 10$

   $10 \times 3 - 4 = 26$

   $26 \times 3 + 4 = 82$.

51. 3, 6, 24, 30, 63, 72, ?, 132

   (1) 120   (2) 110   (3) 105   (4) 115

Ans. (1)

Sol. By observation. It is alternate series.

52. 25, 49, 89, 145, 217, ?

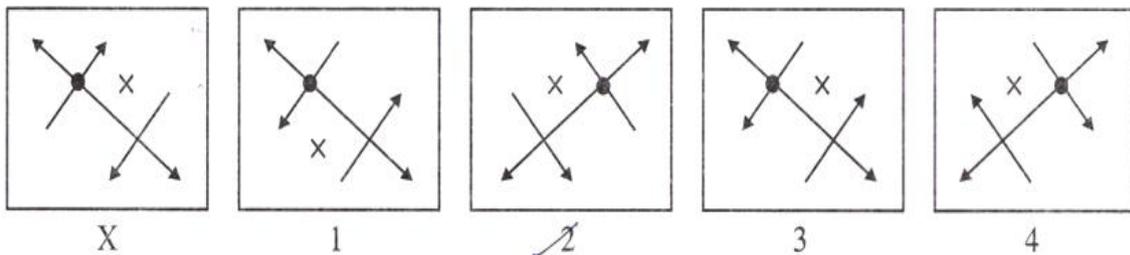(1) 310   (2) 240   (3) 305   (4) 311

Ans. (3)

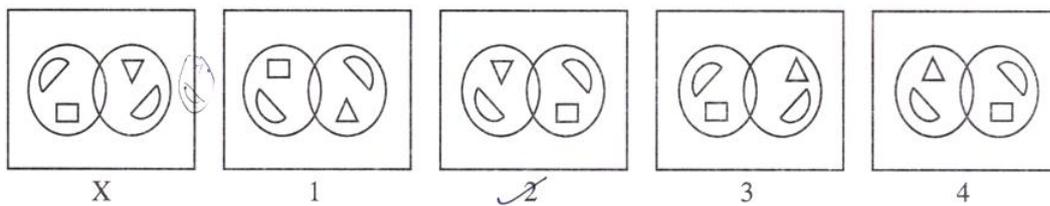Sol. Triangular series.

Q. 53-55

In each of the following questions; choose the correct mirror-image of the figure (x) from amongst the alternatives 1, 2, 3 & 4 given along with it.
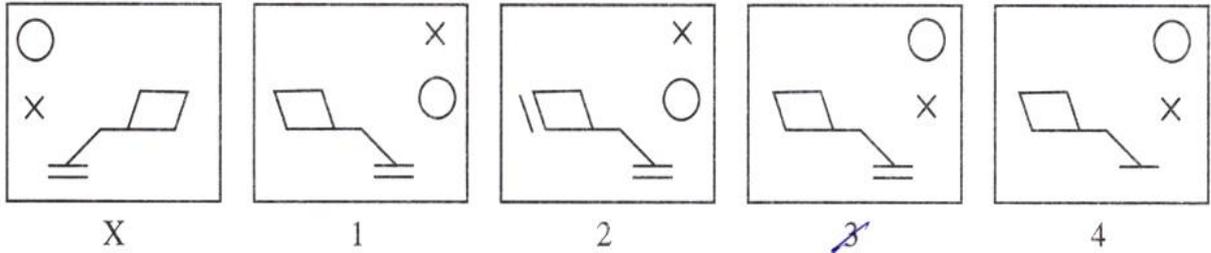
53.

Ans. (2)

54.

Ans. (2)

55.

Ans. (3)

56. In a class Rani ranks 7th from the top, Sarita is 7 ranks ahead of Mohena and 3 ranks behind Rani. Vidisha who is 4th from the bottom, is 32 ranks behind Mohena. How many students are there in the class?

(1) 52   (2) 49   (3) 50   (4) 54

Ans. (1)

Q 57-63

Read the following information carefully and answer the questions given below :

(i) In a class of boys and girls, Amar's rank is 12th and Meeta's rank is 8th.

(ii) Amar's rank among the boys is 6th and Meeta's rank among girls is 3rd.

(iii) In the class Meeta's rank is 52nd from the other end.

(iv) From the other end, Amar's rank among the boys is 26th.

57. How many boys are there in the class?

(1) 31   (2) 28   (3) 29   (4) 30

Ans. (1)

58. Which of the following is Meeta's rank among the girls from the other end?

(1) 23rd   (2) 28th   (3) 26th   (4) 22nd

Ans. (3)

59. How many boys are there before Meeta?

(1) 4   (2) 5   (3) 3   (4) 6

Ans. (2)

60. How many boys are there between Amar and last rank, (assuming it is a girl) in the class?

(1) 25   (2) 47   (3) 22   (4) 35

Ans. (1)

61. How many boys are there between Amar and Meeta?

(1) 1   (2) 2   (3) 3   (4) None of these

Ans. (4)

62. How many girls are there before Amar?

(1) 5   (2) 6   (3) 7   (4) 9

Ans. (2)

63. How many girls are there between Meeta and Amar?

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

Ans. (3)

Q. 64-65

In each of the following questions, there are given a combination of letters, followed by four alternatives (1, 2, 3 & 4). Choose the alternative which most closely resembles the mirror- image of the given combination.

64. COLONIAL

(1) LAIONLOC   (2) ЈIANOLOƆ   (3) ГⱯИOГOC   (4) ЈAIИOJOƆ

Ans. (4)

65. EXANATE

(1) EWⱯИⱯЈE   (2) ƎTAИAMƎ   (3) ETANAME   (4) ETAEMAN

Ans. (2)

66. Ramesh can cover a distance in 1 hr 24 min by covering 2/3rd of the distance at 4 kmph and the rest at 5 kmph, the total distance is?

(1) 6 km   (2) 7 km   (3) 8 km   (4) 5 km

Ans. (1)

Sol. According to question $d_1 = \dfrac{2}{3}x$, $d_2 = \dfrac{1}{3}x$, $s_1 = 4\,\text{km/h}$, $s_2 = 5\,\text{km/h}$, $t_1 = \dfrac{1}{6}x$, $t_2 = \dfrac{1}{15}x$, so

$t_1 + t_2 = 1 + \dfrac{2x}{60}$, after solving $x = 6$ km.

67. If air is called water, water is called green, green is called dust, dust is called yellow and yellow is called cloud in which of the following does fish live in?

(1) Air   (2) Water   (3) Green   (4) Dust

Ans. (3)

68. Choose the correct arrangement of mathematical signs at the place of * for equating the given equation.

(1) $x + = x$ (2) $+ \div x =$ (3) $+ - x =$ (4) $+ \div = x$

Ans. (1)

69. If 'M' means ' $-$ ' 'Y' means 'x', 'P' means ' $\div$ ' and 'R' means ' $+$ ' then

60 P 2 R 10 Y 5 M 20 = ?

(1) 60   (2) 100   (3) 50   (4) 40

Ans. (1)

70. If 'A' means ' $-$ ', 'B' means 'x', 'X' means ' $\div$ ' and 'D' means ' $+$ ' then
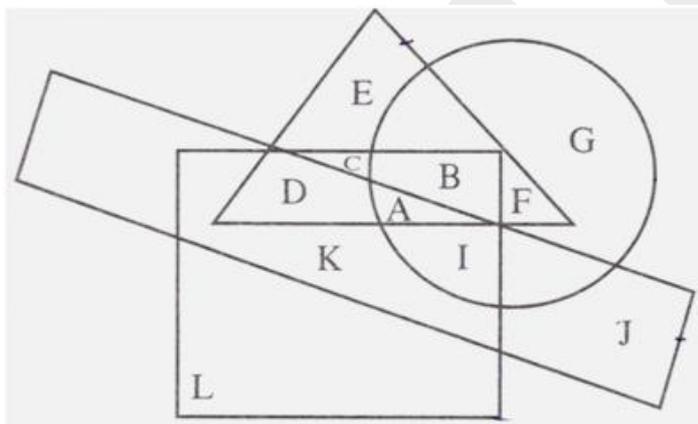
80 C 4 B 13 A 5 B 6 D 15 C 5 = ?

(1) 263   (2) 200   (3) 233   (4) 333

Ans. (3)

Q. 71-75

In the figure below, circle represents employed people, rectangle represents intelligent, square represents hardworking and triangle represents rural people. Study the figure and match the letters with the questions that follow.

71. Which letter represents the non rural, employed, hardworking and intelligent people?

(1) I   (2) A   (3) C   (4) F

Ans. (1)

72. Which letter represents the non rural employed people who are neither intelligent nor hardworking ?

    (1) A   (2) G   (3) C   (4) I

Ans. (2)

73. Which letter represents the hardworking non rural people who are neither employed nor intelligent ?

    (1) D   (2) K   (3) L   (4) J

Ans. (3)

74. Which letter represents employed, hardworking and intelligent rural people ?

    (1) K   (2) D   (3) C   (4) A

Ans. (4)

75. Which letter represents the rural hardworking people who are neither employed nor intelligent ?

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

Ans. (4)

Q. 76-78

In each of these questions, four words/numbers are given. Three of them are alike in some manner and one is odd. Find the odd-one from the alternatives given and mark the correct alternatives on the Answer Sheet.

76. (1) Plateau   (2) Influenza   (3) Scurvy   (4) Night blindness

Ans. (1)

77. (1) 8110   (2) 9100   (3) 1189   (4) 1234

Ans. (3)

Sol. Some of digits = 10.

78. (1) (42, 14)   (2) (69, 23)   (3) (108, 36)   (4) (56, 19)

Ans. (4)

Sol. First number is three times of second number.

79. If every third letter is removed from English Alphabet from left then which letter will be the ninth letter in new alphabet ?

    (1) K   (2) L   (3) M   (4) N

Ans. (3)

80. Choose series of letters in series, which makes one sensible word –

                T M H R E O

                5   4   3   2   1   0

(1) 025314   (2) 504231   (3) 315402   (4) 405312

Ans. (4)

Sol. MOTHER

81. A car travels 432 km. on 48 litres of petrol. How far it travels on 20 litres of petrol.

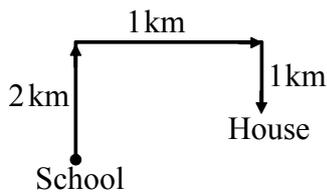(1) 160 km.   (2) 180 km.   (3) 200 km.   (4) 240 km.

Ans. (2)

Sol. By unitary method $x = 180$ km.

82. Gopal goes 2 km. straight north from his school, then turns right and goes 1 km., again he turns right and goes 1 km. to his house, then in which direction is his school from his house ?

(1) North – East   (2) South – East   (3) North – West   (4) South – West

Ans. (4)

Sol.

So from house, school is in South-West direction.

83. Satish reached a meeting place 20 minutes before 8:50 and came to know he came 30 minutes ahead of the person who is late by 40 minutes to the meeting, what is the time of meeting ?

(1) 8:20   (2) 8:10   (3) 8:05   (4) 8:30

Ans. (1)

84. 12 years old Mahesh is 3 times elder than his brother Ramesh. What will be the age of Mahesh when he will be double the age of Ramesh ?

(1) 14   (2) 20   (3) 18   (4) 16

Ans. (4)

Sol. Maehesh $= 12$ yrs., Ramesh $= 4$ yrs. after 4 yrs. Mahesh $= 16$ yrs. and Ramesh $= 8$ yrs.

By solving these equation answer is option (4).

85. A is 3 times older than B. Four years back, age of C was twice the age of A. In four years A will be of 31 years, then what is the age of B and C?

(1) 10, 48 (2) 9, 46 (3) 9, 50 (4) 10, 46

Ans. (3)

Sol. $A = 3x,\ B = x$, four years back $C = 2(3x - 4) = 6x - 8$.

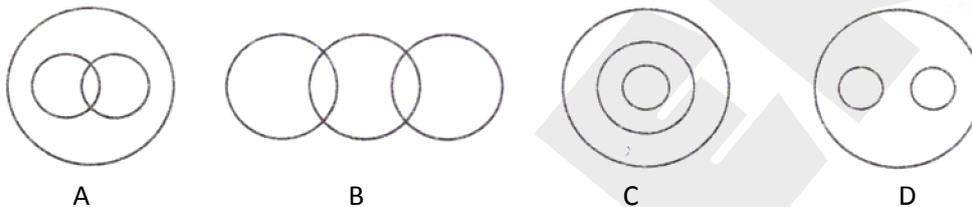Four years hence $A = 3x + 4 = 31$, $x = 9$. After solving age of C is 50 years.

86. If ' $+$ ' stands for multiplication, ' x ' stands for addition, ' $-$ ' stands for division and ' $\div$ ' stands for subtraction. Which of the following equation is right.

(1) $20 - 5 \times 60 + 7 = 425$

(2) $18 - 9 \times 100 + 7 = 701$

(3) $64 - 8 \times 121 - 11 = 19$

(4) $121 - 10 \times 80 - 4 = 30$

Ans. (3)

87. Select the vein diagram which represents the relationship between the following group?

Player, Cricketer, Batsman

A   B   C   D

Ans. (3)

88. In this number series how many '4' are there who have even numbers after them and odd numbers before them?

7 3 4 5 1 2 4 3 5 4 8 1 7 5 4 6 1 4 7 4 2 6 7 8 5 2

(1) 2 (2) 5 (3) 3 (4) 4

Ans. (3)

Q. 89-90

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

89. 25 – K – 8, 23 – I – 11, 21 – G – 14, 19 – E – 17, ….. ?

(1) 17 – F – 19 (2) 19 – C – 17 (3) 17 – C – 20 (4) 20 – D – 17

Ans. (3)

90. 2, 9, 28, ……?

(1) 65   (2) 60   (3) 39   (4) 37

Ans. (1)

Sol. $1^3 + 1$, $2^3 + 1$, $3^3 + 1$, $4^3 + 1$.

Q. 91-92

In the given questions one word is given with the four alternative words. Out of the four alternative words only one word can be made from the given question, find the correct alternative.

91. REPUTATION

(1) TUTOR   (2) PONDER   (3) REQUIRE   (4) RETIRE

Ans. (1)

92. ARISTOCRATIC

(1) CREATION   (2) STATIC   (3) SECRET   (4) ARREST

Ans. (2)

93. If 'A' is brother of 'B', 'C is mother of 'A', 'D' is father of 'C' and E' is son of 'B', then what is relation of 'E' to 'A'?
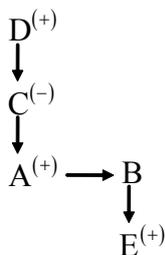
(1) Cousin   (2) Nephew   (3) Uncle   (4) Grandson

Ans. (2)

Sol.

$D^{(+)}$
↓
$C^{(-)}$
↓
$A^{(+)}$ ⟶ B
        ↓
        $E^{(+)}$

E is the nephew of A.

94. If code for 'FAMILY' is 316459 and code for 'SISTER' is 747820 then what is the code for 'MISTRESS'?

(1) 64870277   (2) 64708277   (3) 64782077   (4) 64790277

Ans. (4)

95. In the given questions, four pairs of words are given out of which three pairs of words bears a certain relationship. Choose the pair in which the words are differently related ?

    (1) Forest – Elephant   (2) River – Crocodile

    (3) Passenger – Luggage   (4) Class – Teacher

Ans. (3)

Q.96-100

Please read the paragraph and answer the questions given below –

A and B play cricket and tennis, B and E play hockey, A and C play volleyball, C and D play hockey and tennis, C and E play football.

96. Who don't play tennis?

    (1) B   (2) D   (3) E   (4) C

Ans. (3)

97. Who play cricket, tennis as well as volleyball?

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

Ans. (4)

98. Who play hockey, cricket as well as tennis?

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

Ans. (2)

99. Who play only hockey and tennis?

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

Ans. (3)

100. Who play volleyball, hockey, tennis and football?

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

Ans. (2)

Solution 96 100

Game / Player	A	B	C	D	E
Hockey		Yes	Yes	Yes	Yes
Cricket	Yes	Yes			
Tennis	Yes	Yes	Yes	Yes	
Volleyball	Yes		Yes		
Football			Yes	Yes	Yes