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

Direction : (Q. 1 & 2) : Study the following information carefully and answer the questions given below :

The Sum of the income of A and B is greater than the income of both C and D. The sum of the income of A and C is equal to the income of both B and D. A, earns half of the sum of B's and D's income.

1. Which of the following statement is false ?

(1) A's income is more than B's

(2) B's income is more than D's

(3) C's income is more than D's

(4) All are right

Ans. **(1)**

Sol. **For Question (1 & 2)**

$A + B > C + D$ ....(i)

$A + C = B + D$ ....(ii)

$A = \dfrac{1}{2}(B + D) \Rightarrow B + D = 2A$ ....(iii)

From (ii) & (iii),

$\Rightarrow A + C = 2A$

$\Rightarrow \mathbf{A = C}$ .... (iv)

Put A = C in (i),

$\Rightarrow C + B > C + D$

$\Rightarrow \mathbf{B > D}$

Put A = C in (ii),

$2A = B + D$ ....(v)

Adding B on both sides,

$\Rightarrow B + B > B + D$

$\Rightarrow 2B > B + D$

$\Rightarrow 2B > 2A$ (from (v))

$\Rightarrow \mathbf{B > A}$ .... **(vi)**

As B > D

Adding D on both sides,

$\Rightarrow B + D > D + D$

$\Rightarrow B + D > 2D$

$\Rightarrow 2A > 2D$ (from (v))

$\Rightarrow \mathbf{A > D}$ .... **(vii)**

From (iv), (vi) & (vii), we get, $\mathbf{B > A = C > D}$

Hence, "A's income is more than B's is a false statement.

2. Who has the highest income ?

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

Ans. (2)

Sol. B has highest income.

3. Find the time between 9 : 00 and 10 : 00 when the clock needles are in opposite direction.

    (1) $9:10\dfrac{9}{11}$ (2) $9:16\dfrac{4}{11}$ (3) $9:11\dfrac{10}{11}$ (4) None
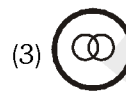
Ans. (2)

Sol. $M = 3 \times \dfrac{60}{11} = \dfrac{180}{11} = 16\dfrac{4}{11}$
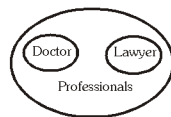
    i.e. at $9:16\dfrac{4}{11}$, then needles are in opposite direction.

4. Which is the Venn diagram showing the correct relationship between Doctor, Lawyer and Professionals ?

Ans. (1)

Sol.

5. What day was on 8 March 2011 ?

    (1) Monday   (2) Tuesday   (3) Wednesday   (4) None

Ans. (2)

Sol. Number of odd days till 2010 is,

    2010 = 2000 + 10

            ↓   ↓

        = 0 + (10 + 2) ← no. of odd days

        = 12 = 5

    Total no. of odd days till 8 March 2011

        = 5 + 3 + 0 + 8

        = 16 = 2 (Tuesday)

    Hence, it was Tuesday on 8 March 2011.

Direction : (Q. 6 to 8) : In each Question (1), (2), (3) and (4) figures are given, out of which 3 figures are similar in a way, yet one figure does not match the other three. Select the incompatible figures for the other three.
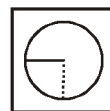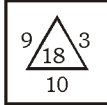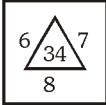
6.

Ans. (2)

Sol. The pattern of lines inside the figures in option (1), (3) & (4) are moving anticlockwise. Hence the figure in option (2) is the incompatible figure.

7. (1)   (2)   (3)   (4)

Ans. **(3)**

Sol. (1) $\Rightarrow (7 \times 5) - 12 = 35 - 12 = 23$ (2) $\Rightarrow (4 \times 8) - 10 = 32 - 10 = 22$

(3) $\Rightarrow (9 \times 3) - 10 = 27 - 10 = 17 \neq 18$ (4) $\Rightarrow (6 \times 7) - 8 = 42 - 8 = 34$

Hence the figure in option (3) is the incompatible figure.

8. (1)   (2)   (3)   (4)

Ans. **(4)**

Sol. In options (1), (2) & (3), all the inside & outside figures are closed but in case of option (4), inside figure is not closed. Hence, figure in option (4) is incompatible.

Direction : (Q. 9 to 11) : In each of the following questions, 3 question figures are given as A, B, C and 4 answer figures are given as 1, 2, 3 and 4. Select the figure from the answer figures that will continue the series given in the question figures.
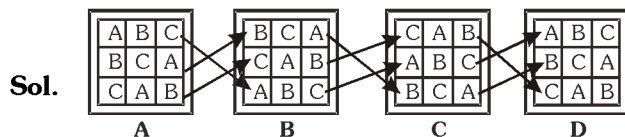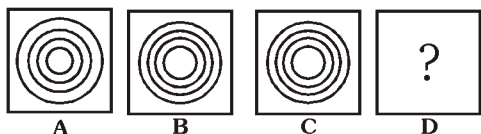
9. **Question Figures**
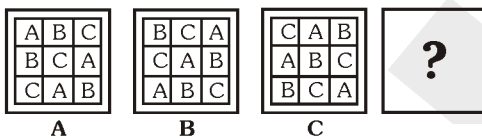
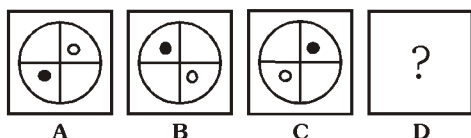**Answer Figures**

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

Ans. **(3)**

Sol.

3

10. **Question Figures**

Answer Figures

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

Ans. **(BONUS)**

11. **Question Figures**

Answer Figures

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

Ans. **(2)**

Sol.
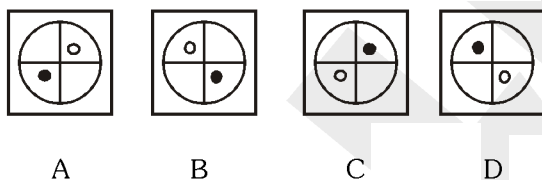

A   B   C   D
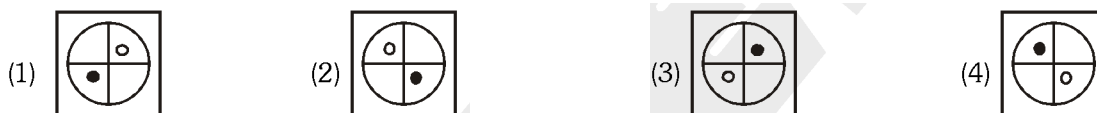
Here ○ & ● are moving 1 step clockwise.

12. Opposite of 'AWKWARDNESS'

(1) Artistic   (2) Clever   (3) Experience   (4) Straight

Ans. **(4)**

Sol. Opposite of 'AWKWARDNESS' is 'Straight'.

13. Synonym of 'COMPETITOR' :

(1) Actor   (2) Rival   (3) Match   (4) Player

Ans. **(2)**

Sol. Synonym of 'COMPETITOR' IS 'Rival'.

14. If coding for 'EXAMINATIONS' is 1 2 3 4 5 6 3 7 5 8 6 9 then coding for 'NOMINATION' :

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

Ans. **(2)**

Sol.
```
E X A M I N A T I O N S  |  N O M I N A T I O N
↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ |  ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
1 2 3 4 5 6 3 7 5 8 6 9  |  6 8 4 5 6 3 7 5 8 6
```

(Direct coding)

Direction : (Q. 15 to 19) Odd one out.

15.   (1) Bd Eg   (2) Km Np   (3) Pr Su   (4) Tw Xz

Ans. **(4)**

Sol.

        ⓒ   ⓕ   ⓛ ⓞ   ⓠ ⓣ   ⓤⓥ ⓨ

    (1) B d E g   (2) K m N p   (3) P r S u   (4) T w X z

        ↑   ↑   ↑ ↑   ↑ ↑   ↑   ↑

    1 letter 1 letter 1 letter 1 letter 1 letter 1 letter 2 letters 1 letter

     skip   skip   skip   skip   skip skip   skip   skip

Hence, option (4) is odd one out.

16.   (1) 9 – 3   (2) $\dfrac{1}{2} - \dfrac{1}{8}$ (3) $\dfrac{1}{3} - \dfrac{1}{12}$ (4) 24 – 6

Ans. **(1)**

Sol.   In (2), (3) & (4) options, the second number is $\left(\dfrac{1}{4}\right)$th of the first number.

    But in (1) option, second number is $\left(\dfrac{1}{3}\right)$rd of the first number.

    Hence, option (1) is odd one out.

17.   (1) Moscow   (2) New Delhi   (3) Beijing   (4) Newyork

Ans. **(4)**

Sol.   'Moscow' is the capital of Russia.

    'New Delhi' is the capital of India.

    'Beijing' is the capital of China.

    But 'Newyork' is not the capital of any country.

    Hence, option (4) is odd one out.

18.   (1) Army : General   (2) Team : Captain   (3) Creche : Child   (4) Meeting : Chairman

Ans. **(3)**

Sol.   'General' is the head of 'Army'

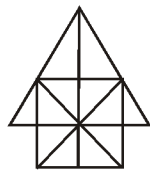   'Captain' is the head of 'Team'

    'Chairman' is the head of 'Meeting'

    But 'Child' is not the head of 'Creche'

    Hence, option (3) is odd one out.

19. Count the number of triangles and squares in the figure given below.
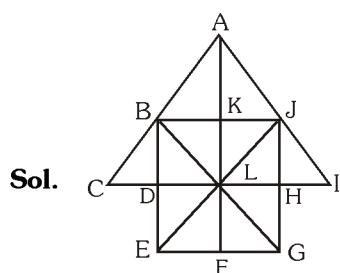

(1) 26 Triangles, 5 Squares   (2) 26 Triangles, 6 Squares

(3) 27 Triangles, 6 Squares   (4) 28 Triangles, 5 Squares

Ans. **(4)**

Sol.

Triangles :

ΔABK, ΔAKJ, ΔCBD, ΔBDL, ΔDLE, ΔEFL

ΔLFG, ΔLGH, ΔLHJ, ΔLJK, ΔBKL, ΔJHI

ΔBLJ, ΔJLG, ΔGLE, ΔELB, ΔBJG, ΔJGE

ΔGEB, ΔEBJ, ΔCBL, ΔJLI, ΔABJ, ΔABL,

ΔAJL, ΔALC, ΔALI, ΔACI,

Squares : ▢BKLD, ▢KJHL, ▢LHGF, ▢DLFE, ▢BJGE

Hence, there are total 28 triangles & 5 squares

Option (4) is correct

20. If the words 'INTIMATION', INFORMATION, INTEREST, INTERROGATION, INSTIGATION are kept in order according to the dictionary, which will be the 4th letter from the left side in the last word?

(1) R   (2) O   (3) T   (4) I

Ans. **(4)**

Sol. Correct order is

INFORMATION, INSTIGATION, INTEREST, INTERROGATION, INTIMATION.

Here, last word is : I N T **I** M A T I O N

↓

4th letter from left side.

i.e. I is the 4th letter from the left side in the last word.

21. If Suresh reached some place on Tuesday, he said that he has come 3 days before then on what day the man reached who was late by 4 days ?

(1) Monday   (2) Tuesday   (3) Wednesday   (4) Thursday

Ans. **(2)**

Sol. Suresh reached some place on **Tuesday**. which is 3 days before the actual day, which means he has to reach on **Friday**. Hence, the man who was late by 4 days reached on **Tuesday.**

22. In the following question, figure (X) is given in which a point is established. Four other answer figures (1), (2), (3) and (4) are given after this figure. Only one of these answer figures is such that it is possible to establish the point according to the conditions given in figure X. Find the correct Answer figure.
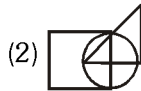
Question figure
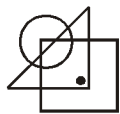
(X)

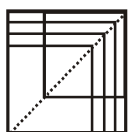**Answer figure**
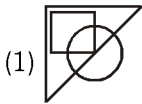
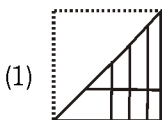(1)   (2)   (3)   (4)

Ans. **(1)**

Sol. In the figure (X), the point is common in triangle & square only.

and the answer figure in option (1), is such that , it is possible to establish the point in triangle & square only. Hence option (1) is the correct.
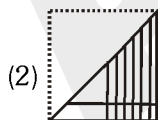
23. In the following question, a square transparent paper is given along with a pattern four option figures are given below, which show the shape formed after the paper is folded on the dot line, select the one that completes the pattern answer figure.
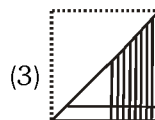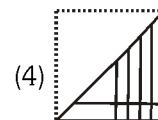
Question Figure

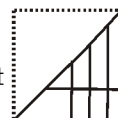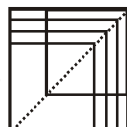**Answer Figure**

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

Ans. **(1)**

Sol. When we fold the paper on the dotted line, we get which is option (1).

24. Age of D is middle among five friends, K is the youngest. U is greater than N and N, is smaller than A and D. Who is the biggest among them ?

(1) A

(2) U

(3) N

(4) Things given are insufficient

Ans. (4)

Sol. Correct order is $\underline{A/U} > \underline{U/A} > \underline{D} > \underline{N} > \underline{K}$
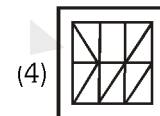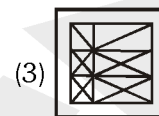
Hence, either A or U is biggest among them.

i.e. things given are insufficient to answer the gtiven question.

25. Four complex shapes followed by an X are given such that the shape X is embedded in one of the four. Choose the correct option.

Question Figure

Answer Figure

(1) (2) (3) (4)
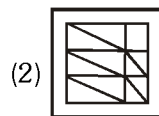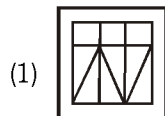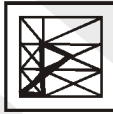
Ans. (3)

Sol. The question figure is embedded is which is option (3).

Direction : (Q. 26 & 27) : In each of the following question, two statements A and B are given, based on their conclusions. 4 statements are given. Candidates have to guess the correct conclusions, considering both the statement to be true even if they seem to be false.

26. Statement: (A) Ajay is an artist.

(B) Artists are Handsome.

Conclusions : (1) All Handsome people are artists.

(2) Ajay is handsome.

(3) Ajay is not handsome.

(4) Handsome people are not artists.

Ans. (2)

Sol.
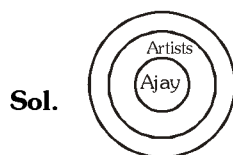
Option (2) Ajay is handsome.

27. **Statement**: (A) All Knowledge is good.

(B) All Knowledge is difficult.

Conclusions :(1) Some good things are hard.

(2) All difficult things are difficult.

(3) All good things are Hard.

(4) Simple things are not Knowledge.

Ans. **(1)**

Sol.

From the venn diagram some good things are hard

(Option 1 is correct)

28. If the English alphabet is written in reverse order, which will be the third letter to the right of the 15th letter from the left ?

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

Ans. **(1)**

Sol. Z Y X W V U T S R Q P O N M <u>L</u> K J I H G F E D C B A

15th letter from left → L

3rd letter to the right → I

(Option 1 is correct)

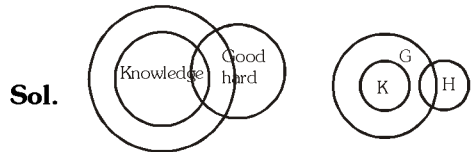**29.** The managing director of a firm arrived at the conference Hall 10 minutes before 12:30 to interview and it was 20 minutes before the chairman. If the chairman arrived half an Hour late than the scheduled time for interview, than what was the scheduled time for the interview ?

(1) 11: 55   (2) 12 : 05   (3) 12 : 15   (4) 12 : 10

Ans. **(4)**

Sol. Manging directior arrived 10 min before 12 : 30
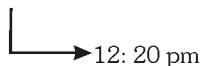
$\longrightarrow$ 12: 20 pm

chairman arrived 20 min after managing director 12: 20 pm + 20 min = 12 : 40 pm

chairman arrived half an hour late than the starting time so meeting started at 12 ; 40 – 30 min = 12 : 10 pm.

30. How many such 4 are there in the following number series, where 3 is immediately before and 2 is immediately after.

4 5 3 6 2 4 3 4 2 9 3 4 1 0 3 4 2 7 4 3 2 3 4 2 3 4

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

Ans. **(2)**

Sol. 4 5 3 6 2 4 <u>3 4 2</u> 9 3 4 1 0 <u>3 4 2</u> 7 4 3 2 <u>3 4 2</u> 3 4

The solution set we are looking for is **3 4 2**

So from the series there are 3 such set.

(Option 2 is correct)

Direction : (Q. 31 to 33) : Choose water Image of given figure/words (X):

31.   NDL2CA430Y

   (X)

   (1) ИDГSCA430Y   (2) ИDГSCA430Y   (3) ИDГSCA430Y   (4) ИDГSCA430Y

Ans. **(1)**

Sol. NDL2CA430Y

Water image

ИDГSCA430Y

(Option 1 is correct)

32.

(X)

(1)   (2)   (3)   (4)
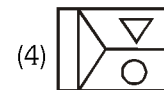
Ans. **(2)**

Sol.

Water image

(Option 2 is correct)

33.   bchixpv

   (1) pchixbv   (2) pcɥixpʌ   (3) pcɥixbʌ   (4) pcɥixbʌ

Ans. **(4)**

Sol.   bchixpv

Water image

pcɥixbʌ

(Option 4 is correct)

Direction : (Q. 34 to 36) Choose Mirror Image of given figure / words (x):

34.   STLAQUE

   (X)

   (1) ƧTLAϘUE   (2) ƧTLAϘUƎ   (3) ƧTLAϘUE   (4) ƎUϘALTƧ

Ans. **(4)**

Sol.   STLAQUE

Mirror image

ƎUϘALTƧ

(Option 4 is correct)

35. bdpcoxi9

(1) ρqbcox!ə   (2) 9ixocрdb   (3) ℮ixoɔqbd   (4) ℮ixoɔqbd

Ans. **(4)**

Sol. bdpcoxi9

Mirror image

℮ixoɔqbd

(Option 4 is correct)

36.

(X)

(1)
(2)
(3)
(4)
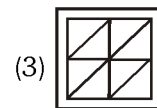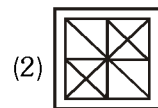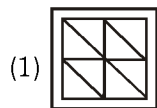
Ans. **(4)**

Sol.

Mirror image
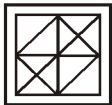
(Option 4 is correct)

37.

Which number is opposite to 4 :

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

Ans. **(3)**

Sol.
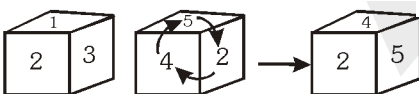
Rotating 2nd cubes no in anticlockwise direction
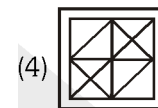
So 1 is opp 4 and 3 is opp 5

(Option 3 is correct)

38. What is opposite to $?

(1) 1   (2) #   (3) @   (4) %

Ans. (1)

Sol.

(I)   (II)   (III)   (IV)
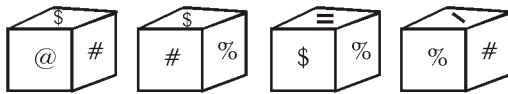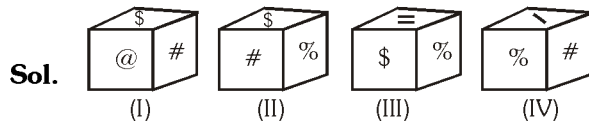
From (I) and (II) $\% \to @$

From (II) and (IV) $= \to \#$

So, $\$ \to 1$

(Option 1 is correct)

Direction : (Q. 39 to 41) : In a given cube :

(a) Red colour is opposite to Black.   (b) Green is between Red & Black.

(c) Brown and Blue near to each other.   (d) Blue & White near to each other.

(e) Red colour on base.

Give answer on the bases of given information ·

39. Which 4 colour are near to each other ?

(1) Black, Blue, Brown, Red   (2) Green, Brown, Red, White

(3) Blue, Brown, Red, White   (4) Black, Blue, Red, White.

Ans. (1)

Sol.
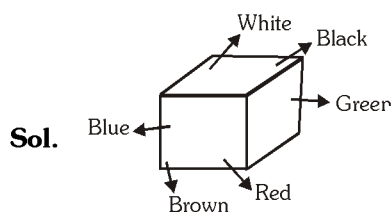
Four colours near to each other

So, Option 1 is correct

40. Which colour is opposite to white ?

(1) Brown   (2) Red   (3) Green   (4) Blue

Ans. (1)

Sol.
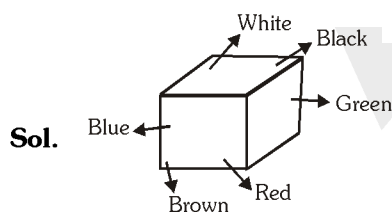
Opp to white is brown $\to$ (Option 1 is correct)

41. Conclusion of (a) and (e) Point :

(1) Blue colour on Top   (2) Black colour on Top   (3) Green colour on Top   (4) White colour on Top

Ans. (2)

Sol.
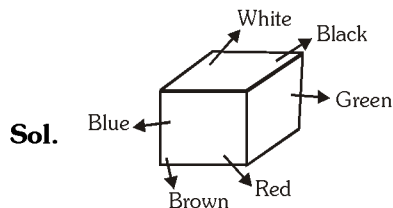
Black colour is on the top from a and e

(Option 1 is correct)

Direction : (Q. 42 to 44) : Each side of solid cube is 12 cm. The opposite faces of this Cube are painted Red, Blue and Black. After this, the cube is cut into small cubes whose each side is 2 cm.

Answer the following questions on this basis :

42. What will be the number of cubes with colourless faces ?

(1) 8   (2) 27   (3) 36   (4) 64

Ans. (4)

Sol.
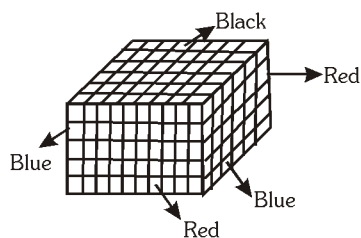
$$n = \frac{12}{2} = 6 \quad \left[\frac{\text{size of bigger cube}}{\text{size of smaller cube}} \right]$$

$$n^3 = 216 \text{ cubes}$$

No of cubes with no face painted $= (n-2)^3 = (6-2)^3 = 4^3 = 64$

(Option 1 is correct)

43. What will be the number of cubes with three faces painted in three different colors ?

(1) 0   (2) 4   (3) 8   (4) None of these

Ans. (3)

Sol. No of cubes with 3 face painted in three diffeerent colours

= 8 such cubes

(Option 3 is correct)

44. How many cubes will have one of its face Red and other faces Colourless ?

(1) 18   (2) 24   (3) 32   (4) 36

Ans. (3)

Sol. In the red faced sides there are 16 in face

Thus $16 \times 2 = 32$ such cube.

(Option 3 is correct)

45. Select a proper group of letters from the given alternations :

c__bbb __ __ abbbb __ abbb __

(1) aabcb   (2) abccb   (3) abacb   (4) bacbb

Ans. **(2)**

Sol. c <u>a</u> bbb <u>bc</u> abbbb <u>c</u> abbb <u>b</u>

Pattern is cab, bbb, cab, bbb, cab, bbb

So, (Option 2 is correct)

46. In a certain code language GARNISH is written as RGAINHS. What will GENIOUS be written in that code language?

(1) NEGOISU   (2) NGEOISU   (3) NGESUOI   (4) NEGSUOI

Ans. **(2)**

Sol. G A R N I S H is R G A I N H S

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

Sof from above

G E N I O U S   will be N G E O I S U

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

So, (Option 2 is correct)

47. In a certain code language INKER is written as GLLGT and GLIDE is written as EJJFG. What will JINKS be written in that code language ?
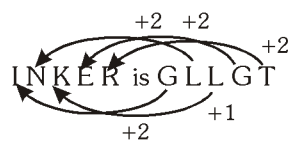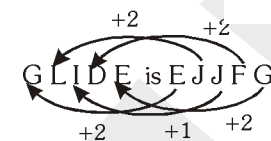
(1) GFOMU   (2) HGMMU   (3) HGOGH   (4) HGOMU

Ans. **(4)**

Sol.

So from this patter will be

Thus H G O M U

48. If U is denoted by 7, M by 2, I by 5, O by 1, K by 8 and J by 4, then what will be the numeric form of the word MOUJIK, when written in the reverse order ?

(1) 217458   (2) 845712   (3) 854712   (4) 857412

Ans. **(3)**

Sol. M → 2

I → 5

O → 1

K → 8

J → 4

frp, this MOUJIK is 2147458

Direction : (Q. 49 & 50) Choose wrong number in the given series.

49. 10, 26, 74, 218, 654, 1946, 5834

(1) 26   (2) 74   (3) 218   (4) 654

Ans. (4)

Sol. 10, 26, 74, 218, 654, 1946, 5834

$10 \times 3 - 4 = 26$ and $218 \times 3 - 4 = 654 - 4 = 650$

$26 \times 3 - 4 = 74$

$74 \times 3 - 4 = 218$

So, 654 is the wrong term

(Option 4 is correct)

50. 325, 259, 202, 160, 127, 105, 94

(1) 94   (2) 127   (3) 105   (4) 202

Ans. (4)

Sol.

$$325 , 259 , 202 , 160 , 127 , 105 , 94$$

     -66   -55   -44

So, $325 - 66 = 259$

$259 - 55 = 204$

$204 - 44 = 160$

$16 - 33 = 127$

from this (Option 4 is correct)

Direction : (Q. 51 to 55) What number will come at the place of question mark ?

51. 4, –8, 16, –32, 64, ?

(1) 128   (2) –128   (3) – 64   (4) –192

Ans. (2)

Sol. 4, – 8, 16, –32, 64, ?

$4 \times -2 = -8$

$-8 \times -2 = 16$

$16 \times -2 = -32$

$-32 \times -2 = -64$

$64 \times -2 = -128$

52. $\dfrac{1}{81}, \dfrac{1}{54}, \dfrac{1}{36}, \dfrac{1}{24}, (?)$

(1) $\dfrac{1}{32}$ (2) $\dfrac{1}{9}$ (3) $\dfrac{1}{16}$ (4) $\dfrac{1}{18}$

Ans. (3)

Sol. $\dfrac{1}{81}, \dfrac{1}{54}, \dfrac{1}{36}, \dfrac{1}{24}, ?$

Multiply each term by $\dfrac{3}{2}$ $\Rightarrow \dfrac{1}{81} \times \dfrac{3}{2} = \dfrac{1}{54} \Rightarrow \dfrac{1}{54} \times \dfrac{3}{2} = \dfrac{1}{36} \Rightarrow \dfrac{1}{36} \times \dfrac{3}{2} = \dfrac{1}{24} \Rightarrow \dfrac{1}{24} \times \dfrac{3}{2} = \dfrac{1}{16}$

53. 2, 6, 3, 4, 20, 5, 6, (?), 7

    (1) 25   (2) 28   (3) 30   (4) 42

Ans. (4)

Sol.   2, 6, 3   4, 20, 5   6, ?, 7

         $2 \times 3 = 6$ $4 \times 5 = 20$ $6 \times 7 = 42$

54. 10, 5, 13, 10, 16, 20, 19, (?)

    (1) 22   (2) 23   (3) 38   (4) 40

Ans. (4)

Sol.   10, 5, 13, 10, 16, 20, 19, (?)

It is a combination of two series

$\Rightarrow$ 10 + 3 = 13 , 13 + 3 = 16 , 16 + 3 = 19

$\Rightarrow$ 5 × 2 = 10 , 10 × 2 = 20 , 20 × 2 = 40

55. 30, 2, 20, 6, 12, 12, ?

    (1) 6   (2) 8   (3) 10   (4) 15

Ans. (1)

Sol.   30, 2, 20, 6, 12, 12, 12, (?)

It is a combination of 2 series :–

$2 + 4 = 6$	30 - 10 = 20
$6 + 6 = 12$	20 - 8 = 12
	12 - 6 = 6

Direction : (Q. 56 to 58) Which number will replace the question mark ?

56.
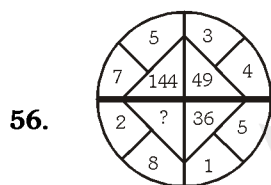
    (1) 81   (2) 68   (3) 100   (4) 121

Ans. (3)

Sol. $\Rightarrow$ 7 + 5 $\longrightarrow$ 12 $\longrightarrow$ $(12)^2 = 144$

      $\Rightarrow$ 3 + 4 $\longrightarrow$ 7 $\longrightarrow$ $(7)^2 = 49$

      $\Rightarrow$ 5 + 1 $\longrightarrow$ 6 $\longrightarrow$ $(6)^2 = 36$

      $\Rightarrow$ 2 + 8 $\longrightarrow$ 10 $\longrightarrow$ $(10)^2 = 100$

57.

5	8	7
11	17	15
21	33	?

(1) 29 (2) 31 (3) 28 (4) 33

Ans. (1)

Sol.

5	8	7
11	17	15
21	33	?

Solve column wise

C –I : - $(5 \times 2) + 11 = 21$

$(8 \times 2) + 17 = 33$

$(7 \times 2) + 15 = 29$

58.

$\overset{3}{\underset{2}{4\ (2.50)\ 5}}$ $\overset{8}{\underset{4}{6\ (12.50)\ 2}}$ $\overset{2}{\underset{9}{5\ (\ ?\ )\ 2}}$

(1) 1.61 (2) 10.50 (3) 12.25 (4) None

Ans. (1)

Sol.

$\overset{3}{\underset{2}{4\ (2.50)\ 5}}$ $\Rightarrow$ $\dfrac{4^2 + 3^2}{2 \times 5} = 2.5$

$\overset{8}{\underset{4}{6\ (12.50)\ 2}}$ $\Rightarrow$ $\dfrac{6^2 + 8^2}{4 \times 2} = 12.50$

$\overset{2}{\underset{9}{5\ (\ ?\ )\ 2}}$ $\Rightarrow$ $\dfrac{5^2 + 2^2}{2 \times 9} = 1.61$

59. If we fold figure (x) to make a Box, then what will be opposite to 5 ?
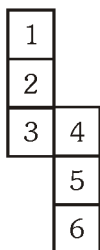
(1) 3 (2) 2 (3) 1 (4) 6

Ans. **(2)**

Sol.

If we fold figure to make a box (dice)

then 1 will be opposite to 3

2 will be opposite to 5

3 will be opposite to 6

60. How many Triangles are in the given figure ?
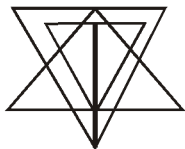
(1) 18 (2) 17 (3) 27 (4) 25

Ans. **(2)**
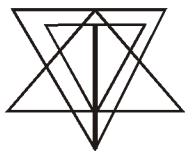
Sol.

Correct Option (2)

Total as = 17

61. How many straight lines are in given figure?
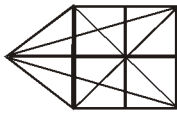
(1) 10   (2) 11   (3) 12   (4) 13

Ans. (3)

Sol.
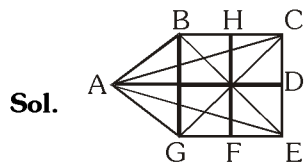
Total lines : –

AB, BC, CE, EG, BG, AG,

BE, HF, CG, AC, AE, AD

Total = 12 lines

62. How many Rectangles are in given figure?
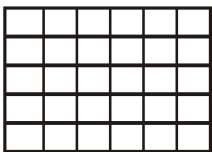
(1) 315   (2) 70   (3) 245   (4) None

Ans. (1)

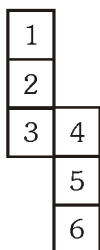**Sol.** Number of Rectangle :–

$$\frac{m(m+1)}{2} \times \frac{n(n+1)}{2} = \frac{5(5+1)}{2} \times \frac{6(6+1)}{2}$$

$$= \frac{5 \times 6}{2} \times \frac{6 \times 7}{2} = 315$$

Direction : (Q. 63 to 65) P, Q, R, S, T and U are sitting along the circle facing the center.

(a) P is immediate neighbour of Q who is second to the right of R.

(b) S is second to the left of T.

(c) U is immediate neighbour of T.

63. Which of the following is **correct**?

(1) S is between U and R.   (2) Q is between P and T.   (3) P is between Q and R.   (4) T is between U and Q.

Ans. (3)

Sol. Option (3)

64. What is the position of U ?

(1) Second to the right of R

(2) Between T and P

(3) To the immediate left of S

(4) Second to the right of Q

Ans. **(4)**

Sol. V is second to the Right of Q

65. Which of the following is **wrong** ?

(1) P is to the immediate left of R.

(2) Q is to the immediate right of P.

(3) S is to the immediate right of Q.

(4) T is to the immediate right of U.

Ans. **(1)**

Sol.
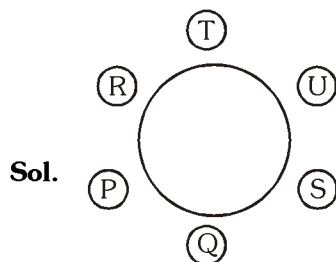
Direction : (Q. 66 & 67)

(a) 'P × Q' means T is brother of Q'

(b) 'P ÷ Q' means 'P is sister of Q'

(c) 'P + Q' means 'P is father of Q'

W) 'P – Q' means 'P is mother of Q'

66. Which of the following means 'S is nephew of R' ?

(1) S × T ÷ J + R   (2) R ÷ M – S + T   (3) R – M ÷ S × T   (4) R + M – S ÷ T

Ans. **(2)**

Sol. R ÷ M – S + T

S is nephew of R
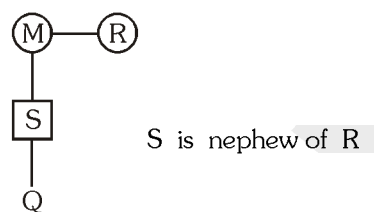
67. Which of the following means M is grandfather of W ?

(1) M – J ÷ W   (2) M + J × W   (3) M × T + W   (4) M + J – W

Ans. **(4)**

Sol. M + J –W

M is grandfather of W
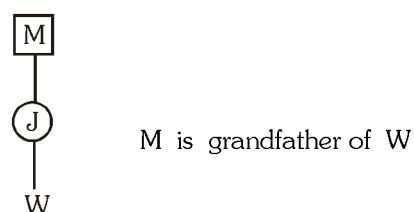
68. If 283 is written as 328, 347 as 734 and so on, then which of the following two numbers will have least difference between them?

(1) 827 and 347   (2) 347 and 518   (3) 748 and 518   (4) 518 and 829

Ans. **(3)**

                                            Difference

Sol. (1) 827 & 347 $\Rightarrow$ 782 & 734   48

        (2) 347 & 518 $\Rightarrow$ 734 & 851   117

        (3) 748 & 518 $\Rightarrow$ 874 & 851   ㉓

        (4) 518 & 829 $\Rightarrow$ 851 & 982   131

Direction : (Q. 69 to 71) These questions are based on the following arrangement of symbols, letters and numbers.

        $ L 2 = ? P C 7 % E H @ ÷ 8 K B M 5 T V 3 *

69. How many such symbols are there in the arrangement, each of which is immediately preceded by a letter?

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

Ans. **(1)**

Sol. $ L 2 = ? P C 7 % E H̲ @ ÷ 8 K B M 5 T V 3 *

$\Rightarrow$ Symbols preceded by letter :– H @

$\Rightarrow$ Only 1 such symbol

70. If all the numbers are deleted from the arrangement, which element will be the 7th to the left of the 14th element from the left end?

(1) %   (2) H   (3) @   (4) C

Ans. **(1)**

Sol. $ L = ? P C % E H @ ÷ K B M T V *

14th element from left :– M

7th to the left of M :– %

71. '2 = P' is related to '7 % H' in the arrangement in the same way as '.............' is related to 'M5V'.

(1) ÷ 8 S   (2) ÷ @ K   (3) @ ÷ K   (4) @ ÷ 8

Ans. **(3)**

Sol. $ L ② ⊜ ? ⑰ C 7 % E H @ ÷ 8 Ⓚ B M 5 T V 3 *

        @ ÷ K = M 5 V

72. Odd one out :

(1) FASTER   (2) BIGGER   (3) GREATER   (4) LARGER

Ans. **(1)**

Sol. Faster is different from Bigger, Greater & Larger. Because these 3 represent size.

73. Choose most similar word in meaning in the words following : ROSE

    (1) Awake   (2) Erected   (3) Upright   (4) Stood
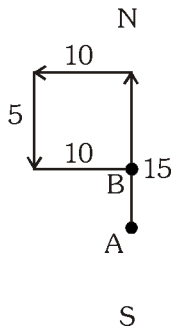
Ans. **(4)**

Sol. ROSE   – Past tense of R I S E

    STOOD – Past tense of Stand

74. Ram went 15 Km. North of his house. After this, he turned West and walked a distance of 10 Km., after which he turned and walked a distance of 5 Km. South and finally he turned East and walked 10 Km. Now in which direction is he from his house ?

    (1) EAST   (2) WEST   (3) NORTH   (4) SOUTH

Ans. **(3)**

Sol.

B is final point , which is North of A (Starting Point)

75. Looking at a picture, Radha reveals that his mother's only daughter is my mother. How is Radha related to that person ?

    (1) Nephew   (2) Sister   (3) Wife   (4) Niece

Ans. **(4)**

Sol. $\rightarrow$ His (mother's only daughter) is my mother

    $\rightarrow$ his sister is my mother

        means

    Radha is niece to that person

76. If '–' means '$\times$', '$\times$' means '+', '+' means '$\div$' and '$\div$' means '–' then $40 \times 12 + 3 - 6 \div 60 = $?

    (1) 7.95   (2) 16   (3) 4   (4) 479.95

Ans. **(3)**

Sol. $- \rightarrow \times$ so, $40 \times 12 + 3 - 6 \div 60$

    $\times \rightarrow + \Rightarrow 40 + 12 \div 3 \times 6 - 60$

    $+ \rightarrow \div = 40 + 4 \times 6 - 60$

    $\div \rightarrow - = 40 + 24 - 60 = 4$ Ans

77. 'ASTOUNDER' word can be divided into how many independent words without changing the order of letters and using each letter only once ?

    (1) 0   (2) 1   (3) 2   (4) 3

Ans. **(4)**

Sol. A S T O U N D E R

    TO, UNDER , AS

78. If the day before Yesterday was Thursday, then when would it be Sunday ?

(1) Today   (2) 2 days after Today   (3) Tomorrow   (4) Yesterday

Ans. (3)

Sol. Day before yesterday was Thursday

then today is Saturday

and Tomorrow is Sunday

Direction : (Q. 79 & 80) Put the given words in the sequence as in the dictionary and then select the *correct* sequence.

79. (A) Palisade   (B) Protect   (C) Pursuit   (D) Profession

(E) Process

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

Ans. (4)

Sol. Palisade, Process, Profession, Protect, Pursuit

      A   E   D   B   C

80. (A) Credential   (B) Compensate   (C) Credible   (D) Cremate

(E) Collapse

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

Ans. (3)

Sol. Collapse, Compensate, Credential, Credible, Cremate

    E   B   A   C   D

81. Museum is related to Curator in the same way as Prison is related to...............

(1) Manager   (2) Monitor   (3) Jailor   (4) Warden

Ans. (3)

Sol. Museum : Curator :: Prison : <u>Jailor</u>

82. Choose a meaningful word given numbers.

1 A   2 B

3 L   4 R

5 O   6 U

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

Ans. (2)

Sol. L A B O U R
3 1 2 5 6 4

83. If $43 = 158$, $35 = 824$, $42 = 153$, then $32 = ?$

(1) 84   (2) 83   (3) 85   (4) 94

Ans. (2)

Sol.

if $43 = 158$	$35 = 824$	$42 = 153$	$32 =$
$43 \rightarrow (4^2-1)(3^2-1)$	$(3^2-1)(5^2-1)$	$(4^2-1)(2^2-1)$	$(3^2-1)(2^2-1)$
158	8 24	153	(83)

84. If $(14)^3$ is added to the square of a number, the answer so obtained is 4425. What is the number ?

    (1) 1849   (2) 43   (3) 41   (4) 1681

Ans. (3)

Sol. $x^2 + (14)^3 = 4425 \Rightarrow x^2 = 1681 \Rightarrow \boxed{x = 41}$

85. The ratio of the present ages Ajay and Vijay is 7 : 6 and the product of their ages is 672 years. How old was Vijay 4 years ago ?

    (1) 20 years   (2) 18 years   (3) 15 years   (4) 25 years

Ans. (1)

Sol. $A° : V° = 7 : 6 \Rightarrow$ Ajay = 7x

                       $\Rightarrow$ Vijay = 6x

and $7x \times 6x = 672 \Rightarrow x^2 = 16 \Rightarrow \boxed{x = 4}$

age of Ajay = 28 , Age of Vijay = 24

so, 4 yrs before age of Vijay = 20 years

Direction : (Q. 86 to 90) K, L, M, N, P, Q, R, S, U and W are the only 10 members in a department. There is a proposal to form a team within the members of the department, subject to the following conditions.

    (a) A team must include exactly one among P, R and S.

    (b) A team must include either M or Q but not both.

    (c) If a team includes one among S, U and W, then it must also include the other two.

    (d) If a team includes K, then it must also include L and vice versa.

    (e) L and N cannot be members of the same team.

    (f) L and U cannot be members of the same team.

86. What would be the size of the largest possible team ?

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

Ans. (4)

Sol.

P	R	S
M/Q	M/Q	M/Q
		U W
KL/N	KL/N	N

so, big team can be <u>SMUWN</u>

87. What would be the size of a team that includes K ?

    (1) 2 and 3   (2) 2 and 4   (3) only 2   (4) only 4

Ans. (4)

Sol. Team contain K can be

P M K L or R M K L or P Q K L or R Q K L

= only 4

88. In how many ways a team can be constituted so that the team includes N ?

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

Ans. (1)

Sol. PMN / PQN / RMN / RQN/ SMNUW/ SQUWN ,

so, total in 6 ways

89. Who can **not** be a member of a team of size 3 ?

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

Ans. (1)

Sol. PMN / PQN / RMN / RQN

$\Rightarrow$ P, M, N, Q, R $\Rightarrow$ L is not there

90. Who can be a member of a team of size 5 ?

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

Ans. (3)

Sol. S <u>M</u> N U W / S Q U W N

Direction : (Q. 91 to 95) In each question, the main statement is followed by four sentences. Select the pair of sentences that relate logically to the given statement.

91. Either Gita is sick or she is careless.

A. Gita is not Sick   B. Gita is not Careless

C. Gita is Sick   D. Gita is Careless

(1) AB   (2) AD   (3) BA   (4) DA

Ans. (2)

Sol. Option (2)

92. Raman gets a swollen nose-whenever he eats hamburgers.

(A) Raman gets a swollen nose.

(B) Raman does not eat hamburgers.

(C) Raman does not get a swollen nose

(D) Raman eats hamburgers.

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

Ans. (4)

Sol. Option (4)

93. Either the employers have no confidence in the management or they are hostile by nature.

(A) They are hostile by nature.

(B) They are not hostile by nature.

(C) They have confidence in the management.

(D) They have no confidence in the management.

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

Ans. (4)

Sol. Option (4)

94. When ever Raman reads late into the nights, his father beats him.

(A) Raman's father does not beat him.

(B) Raman reads late into the night

(C) Raman reads early in the morning.

(D) Raman's father beats him in the morning.

(1) C D   (2) B D   (3) A B   (4) None of these

Ans. (4)

Sol. Option (4)

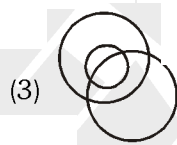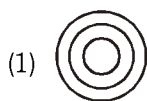**95.** All irresponsible parents shout if their children do not read.

(A) All irresponsible parents do not shout.

(B) Children read.

(C) Children do not read.

(D) All irresponsible parents shout.

(1) A B   (2) B A   (3) C A   (4) All of these

Ans. (1)

Sol. Option (1)

Direction : (Q. 96 to 99) Choose exact venn diagram for given conditions in the Questions.

96. A : Apples are not Sweets.

B : All Sweets are tasty.
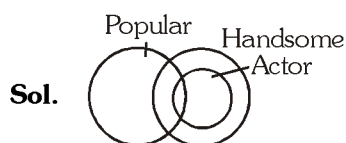
C : No apple is tasty.

Ans. (4)

Sol.

97. A : Some popular people are handsome.
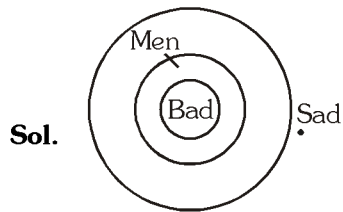
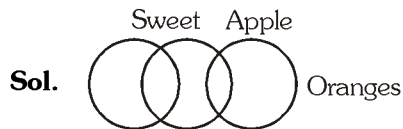B : All actors are handsome.

C : Some actors are popular.

Ans. (3)

Sol.

98. A : All bad things are men.

B : All men are sad.

C : Some sad things are bad.

Ans. (1)

Sol.

99. A : Oranges are not sweet.

B : Some sweets are apples.

C : Some oranges are apples.

Ans. (2)

Sol.

100. Find the time between 9 : 00 and 10:00 when the clock needles coincide :
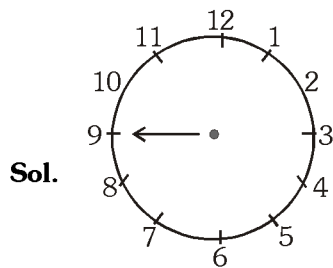
(1) $9:10\dfrac{9}{11}$ (2) $9:47\dfrac{10}{11}$ (3) $9:46\dfrac{4}{11}$ (4) $9:49\dfrac{1}{11}$

Ans. (4)

Sol.

Time will be

$9:\left(45\times\dfrac{12}{11}\right)$

$=9:\left(49.\dfrac{1}{11}\right)$