



**NATIONAL TALENT SEARCH EXAMINATION
(NTSE-2021) STAGE -1
STATE : U.P. PAPER : MAT**

Date: 13/12/2020

Max. Marks: 100

SOLUTIONS

Time allowed: 120 mins

(PART - I)

General Mental Ability Test

Direction : From question 01 to 12 each question has four Terms. Three terms are alike in some way. One term is different from three others. Find out the correct term which is different from three others and write its alternative number on your answer sheet against the proper question number.

1. (1) Guru Ramdas (2) Guru Govind Singh (3) Guru Granth Sahib (4) Guru Nanak Dev

Ans. (3)

Sol. All except Guru Granth Sahib are coming among the first ten Sikh Gurus.

2. (1) Anxiety (2) Anger (3) Sorrow (4) Feeling

Ans. (4)

Sol. All Except 'Feeling' are the type of feelings.

3. (1) Octopus (2) Dolphin (3) Penguin (4) Seal

Ans. (3)

Sol. All except penguin are animals.

4. (1) 289 (2) 216 (3) 512 (4) 729

Ans. (1)

Sol. All except 289 are perfect cubes.

5. (1) Mobile (2) Computer (3) Gas heater (4) Television

Ans. (3)

Sol. All except Gas Heater are electronic devices

6. (1) Pistol (2) Sword (3) Gun (4) Rifle

Ans. (2)

Sol. All except sword are the weapons having machine.

7. (1) Konark (2) Khajuraho (3) Ellora (4) Dilwara

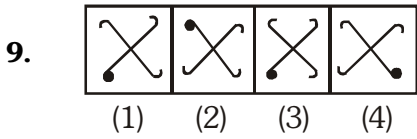
Ans. (3)

Sol. All except Ellora are temples, white Ellora is a cave.

8. (1) Sky-stars (2) Stadium-players
(3) Hospital-patient (4) Moon-Bird

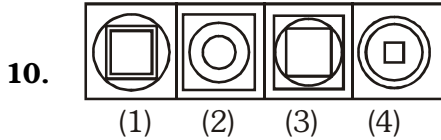
Ans. (4)

Sol. All except Moon-Bird, second word is the part of the first word.



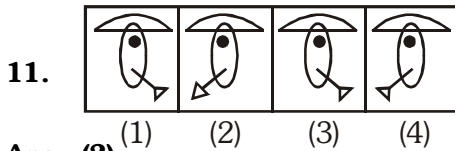
Ans. (1)

Sol. All except option (1) different from the others.



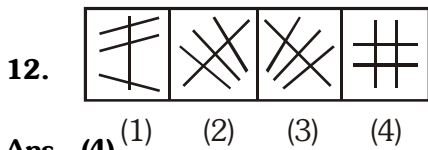
Ans. (3)

Sol. All except option (3), the two same figures are there consecutively.



Ans. (2)

Sol. All except option (2), the triangle's vertex is connected to the line segment.



Ans. (4)

Sol. All except option (4), the three line segments are intersecting to one line segment.

Direction : Question 13 to 22 there are four terms/figures in each question. The terms right to the symbol :: have same relationship as the two terms of the left symbol :: Out of the four terms/figure one is missing, which is shown by (?). Four alternative are given for each question. Find out the correct alternative and write its number against the corresponding question on your answer sheet-

13. 326 : 3649 :: 534 : ?

- (1) 5932 (2) 25916 (3) 16925 (4) 5874

Ans. (3)

Sol. 326 : 3649

$$3^2 = 9, 2^2 = 4,$$

$$6^2 = 36$$

Which is written in reverse order as 3649.

14. Lungs : oxygen :: Heart ?

- (1) Pump (2) blood (3) heart beat (4) breathing

Ans. (2)

Sol. Lungs pumps oxygen to the body in the same way heart pumps blood in the body,

15. QNKG : KHEA :: YVSO : ?

- (1) SPMI (2) LIFE (3) CZWT (4) SVYC

Ans. (1)

Sol. $Q-6=K, N-6=H, K-6=E, G-6=A$

So QNKG : KHEA

16. BGF : 80 :: DHC : ?

- (1) 90 (2) 94 (3) 92 (4) 96

Ans. (3)

Sol. $B=2, G=7, F=6$

$2 \times 7 \times 6 = 84$, So $84-4 = 80$

17. Eye : tears :: Volcano : ?

- (1) Air (2) Flame (3) Ice (4) Water

Ans. (2)

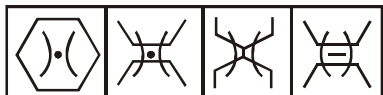
Sol. Tears Comes out of Eyes, in the same way flame comes out of volcano.

18. Carpenter : wood :: Cobbler : ?

- (1) Shoe (2) Sandil (3) Animal (4) Leather

Ans. (4)

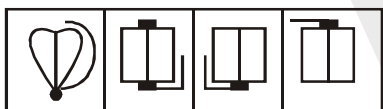
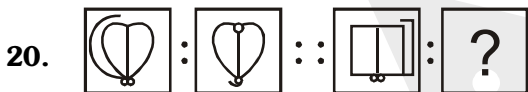
Sol. Carpenter's work is related to wood similarly cobbler's work is related to Leather.



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

Ans. (3)

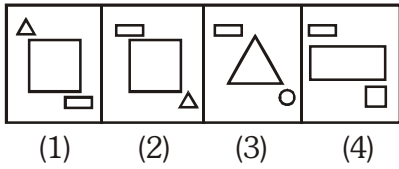
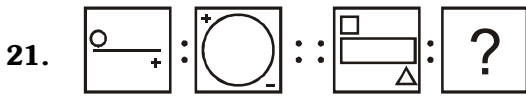
Sol. The closed figure is separated into two equal parts, then it is rotated 180 degree and inside figure is rotated 90 degree.



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

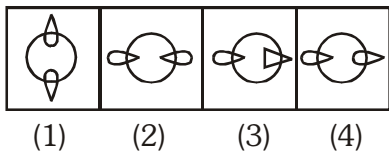
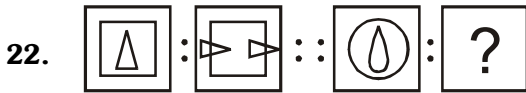
Ans. (2)

Sol. Right tail of the figure is reduced and there is addition on the upper middle part of the figure.



Ans. (1)

Sol. Figure on the top left side will become large and shifted to the center and remaining two small figures will shift their places.



Ans. (4)

Sol. Inside figure will be doubled and it will be rotated 90 degree clockwise.

Direction : Question from 23 to 32 are based on number/figure series. In each series missing term is mentioned by question mark (?). Find out the missing term in given alternatives and write its alternative number against the correct question number on your answer sheet -

23. 22, 3, 19, 9, 16, 27, 13, 81, 10, ?, ?

- (1) 7, 243 (2) 162, 13 (3) 243, 7 (4) 342, 4

Ans. (3)

Sol. Two alternative series



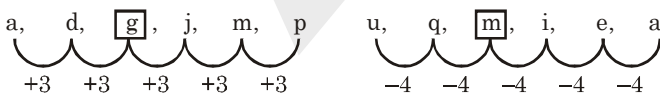
243, 7 is the answer

24. a, u, d, q, ?, ?, j, i, m, e, p, a

- (1) h, l (2) g, l (3) h, m (4) g, m

Ans. (4)

Sol. Two alternative series



So, option (4) g, m is the answer

25. 392, 365, 342, 323, 308, ?, 290, 287

- (1) 297 (2) 293 (3) 289 (4) 301

Ans. (1)

Sol. $\begin{array}{cccccccc} 392, & 365, & 342, & 323, & 308, & 297, & 290, & 287 \\ \underbrace{\hspace{1.5em}}_{-27} & \underbrace{\hspace{1.5em}}_{-23} & \underbrace{\hspace{1.5em}}_{-19} & \underbrace{\hspace{1.5em}}_{-15} & \underbrace{\hspace{1.5em}}_{-11} & \underbrace{\hspace{1.5em}}_{-7} & \underbrace{\hspace{1.5em}}_{-3} & \end{array}$

So, Option (1) is the answer

26. UQN, LHE, CYV, ____, KGD

- (1) QNK (2) WZD (3) TPM (4) KOS

Ans. (3)

Sol. $U - 9 = L$ $Q - 9 = H$ $N - 9 = E$

$L - 9 = C$ $H - 9 = Y$ $E - 9 = V$

$C - 9 = \boxed{T}$ $Y - 9 = \boxed{P}$ $V - 9 = \boxed{M}$

So, Answer is option (3)

27. 0, 2, 6, 10, 50, 56, ?

- (1) 392 (2) 336 (3) 112 (4) 64

Ans. (1)

Sol. $\begin{array}{ccccccc} 0, & 2, & 6, & 10, & 50, & 56, & 392 \\ \underbrace{\hspace{1em}}_{+2} & \underbrace{\hspace{1em}}_{\times 3} & \underbrace{\hspace{1em}}_{+4} & \underbrace{\hspace{1em}}_{\times 5} & \underbrace{\hspace{1em}}_{+6} & \underbrace{\hspace{1em}}_{\times 7} & \end{array}$

28. C, E, H, L, Q, ?, D, L

- (1) U (2) W (3) V (4) X

Ans. (2)

Sol. $\begin{array}{ccccccc} C, & E, & H, & L, & Q, & \boxed{W}, & D, & L \\ \underbrace{\hspace{1em}}_{+2} & \underbrace{\hspace{1em}}_{+3} & \underbrace{\hspace{1em}}_{+4} & \underbrace{\hspace{1em}}_{+5} & \underbrace{\hspace{1em}}_{+6} & \underbrace{\hspace{1em}}_{+7} & \underbrace{\hspace{1em}}_{+8} & \end{array}$

29. Z2B, B3F, C4L, ?

- (1) D5I (2) D5T (3) D5U (4) D5O

Ans. (2)

Sol. $A(1) \times 2 = 2 (B) \rightarrow A2B$

$B(2) \times 3 = 6 (F) \rightarrow B3F$

$C(3) \times 4 = 12 (L) \rightarrow C4L$

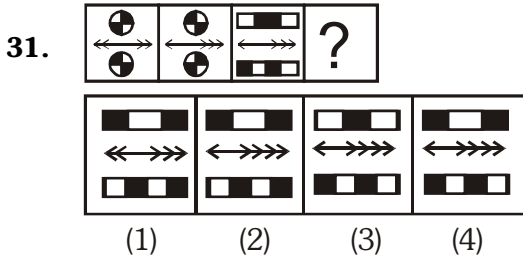
$D(4) \times 5 = 20 (T) \rightarrow \boxed{D5T}$

30. 6, 10, 22, 42, 86, 170, ?

- (1) 254 (2) 212 (3) 243 (4) 34

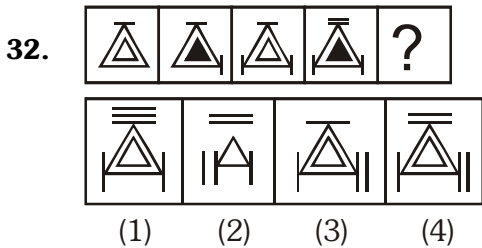
Ans. (4)

Sol. $\begin{array}{ccccccc} 6, & 10, & 22, & 42, & 86, & 170, & 342 \\ \underbrace{\hspace{1em}}_{(\times 2)-2} & \underbrace{\hspace{1em}}_{(\times 2)+2} & \underbrace{\hspace{1em}}_{(\times 2)-2} & \underbrace{\hspace{1em}}_{(\times 2)+2} & \underbrace{\hspace{1em}}_{(\times 2)-2} & \underbrace{\hspace{1em}}_{(\times 2)+2} & \end{array}$



Ans. (2)

Sol. Unshaded portion will be shaded and shaded portion will be unshaded and one arrow head will shift from left to right



Ans. (4)

Sol. Inside Triangle is shaded alternatively, So, in question mark, it will be unshaded and line segment is being added at all the vertices one-by-one in each step.

Direction : In Question 33 to 42 the questions have become wrong because of the wrong order of signs. Choose the correct order of signs from the four options given below so as to make the equations right. Write the alternative number of the correct option on the answer sheet against the corresponding question number -

33. $25 + 5 = 2 \div 2 \times 12$

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

Ans. (3)

Sol. $25 \div 5 \times 2 + 2 = 12$

$5 \times 2 + 2 = 12$
 $10 + 2 = 12$
 $12 = 12$

34. $18 = 5 + 4 \div 2 \times 28$

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

Ans. (1)

Sol. $18 + 5 \times 4 \div 2 = 28$

$18 + 5 \times 2 = 28$
 $18 + 10 = 28$

35. $30 \times 2 \times 6 - 3 = 6$

- (1) $- \times \times =$ (2) $\times = - \times$ (3) $- = \times \times$ (4) $- \times = \times$

Ans. (4)

Sol. $30 - 2 \times 6 = 3 \times 6$

$30 - 12 = 18$ $18 = 18$

36. $5 \times 5 + 29 = 17 - 37$

(1) $= \times - +$

(2) $\times + - =$

(3) $+ \times = -$

(4) $\times = + -$

Ans. (2)

Sol. $5 \times 5 + 29 - 17 = 37$

$25 + 29 - 17 = 37$

$54 - 17 = 37$

$37 = 37$

37. $6 = 3 \div 12 + 28 \div 2$

(1) $\div + \div =$

(2) $+ \div = \div$

(3) $\div + = \div$

(4) $= \div \div +$

Ans. (3)

Sol. $6 \div 3 + 12 = 28 \div 2$

$2 + 12 = 14$

$14 = 14$

38. $18 \div 6 = 3 \times 9 + 36$

(1) $+ \div \times =$

(2) $\div + = \times$

(3) $+ \times \div =$

(4) $\times \div = +$

Ans. (1)

Sol. $18 + 6 \div 3 \times 9 = 36$

$18 + 2 \times 9 = 36$

$18 + 18 = 36$

39. $23 - 69 + 48 = 4 \div 80$

(1) $+ = \div -$

(2) $\div + = -$

(3) $+ - \div =$

(4) $= + - \div$

Ans. (3)

Sol. $23 + 69 - 48 \div 4 = 80$

$23 + 69 - 12 = 80$

$92 - 12 = 80$

40. $13 + 3 - 17 = 29 \times 27$

(1) $- + \times =$

(2) $\times + - =$

(3) $+ = \times -$

(4) $\times - = +$

Ans. (2)

Sol. $13 \times 3 + 17 - 29 = 27$

$39 + 17 - 29 = 27$

$56 - 29 = 27$

$27 = 27$

41. $24 + 17 \div 9 - 3 = 10$

(1) $\div + = -$

(2) $- \div + =$

(3) $+ = \div -$

(4) $- + \div =$

Ans. (4)

Sol. $24 - 17 + 9 \div 3 = 10$

$24 - 17 + 3 = 10$

$7 + 3 = 10$

42. $14 \times 3 = 7 + 63 - 14$

(1) $+ = - \times$

(2) $\times + = -$

(3) $- \times = +$

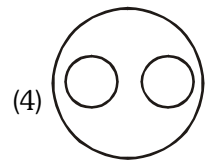
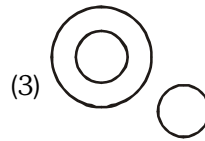
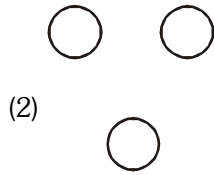
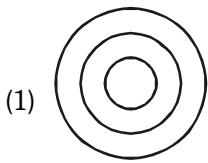
(4) $\times - + =$

Ans. (2)

Sol. $14 \times 3 + 7 = 63 - 14$

$42 + 7 = 49$

Direction : In Question 43 to 52 each of the following question has a group of the three words which are related to each other in some way. This relationship can be represented by one of the four figure alternative given in the beginning. Find out the correct figure alternative and write its alternative number against the corresponding question on your answer sheet –



43. Atmosphere, air, Oxygen

(1) 2

(2) 4

(3) 1

(4) 3

Ans. (3)

Sol. Oxygen is a part of Air and Air is a part of Atmosphere.

44. earth, forest, sky

(1) 4

(2) 3

(3) 2

(4) 1

Ans. (1)

Sol. Forest and sky both are part of earth.

45. Universe, star, sun

(1) 4

(2) 3

(3) 2

(4) 1

Ans. (4)

Sol. Sun is a part of star, and star is a part of Universe.

46. Lawyer, criminal, thief

(1) 1

(2) 3

(3) 4

(4) 2

Ans. (2)

Sol. Thief is one type of criminal and lawyer is separate entity

47. Gas, liquid, metal

(1) 3

(2) 4

(3) 1

(4) 2

Ans. (4)

Sol. Gas, liquid and solid all three are separate from each other.

48. animals, tiger, cow

(1) 2

(2) 3

(3) 4

(4) 1

Ans. (3)

Sol. Cow and Tiger are animal

49. Birds, parrot, bat

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

Ans. (1)

Sol. Parrot is a bird, while Bat is an animal.

50. Mineral, silver, wood

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

Ans. (1)

Sol. If mineral is considered as a part of silver then option (4), if mineral is considered separate from silver, then option (1)

51. Atom, electron, proton

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

Ans. (2)

Sol. Electron and proton both are part of Atom

52. Carnivorous, tiger, wolf

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

Ans. (3)

Sol. Tiger and wolf both are carnivorous animals.

Direction : Question 53 to 57 are based on definite series. In given question some symbols are missing shown by (-). The missing symbols are given in proper sequence as one of the four alternatives given under each question. Find out the correct alternative and write number on the answer sheet against the question number

53. c - ba - cb - cc - ac - ba

- (1) cabac (2) ccabc (3) acabc (4) bcaac

Ans. (2)

ccba | ccba | ccba | ccba

54. fr - e - ra - cf - an -

- (1) afme (2) amfem (3) anerf (4) afmre

Ans. (4)

Sol. frame | frame | frame

55. ma - ma - mam - alm - mm - l

- (1) lmala (2) mlama (3) mlmaa (4) lamam

Ans. (3)

Sol. mamma | mamma | mamma

56. -nb - cn - cc - bc - nbc.

- (1) ccbnc (2) bcncb (3) cbncc (4) bcncb

Ans. (1)

Sol. cnbc | cnbc | cnbc | cnbc

57. j - l - aja - sa - als -

- (1) asjal (2) aslja (3) ajsja (4) ajsla

Ans. (2)

Sol. jalsa | jalsa | jalsa

Direction : Question 58 to 62 the letters in column I are coded in the form of numbers. Which are written in column II, but the order of numbers is different. Read carefully code of letters. Find out correct answer in given alternative and write its alternative number against the corresponding question number on your answer sheet

Column-I	Column-II
PAN	372
NIB	643
BET	156
TIP	241

58. The code for the word BEAN is :-

- (1) 3576 (2) 6543 (3) 5763 (4) 6573

Ans. (4)

Sol. B = 6, E = 5, T = 1, N = 3, I = 4, P = 2, A = 7
BEAN = 6573

59. The code for the word PAINT is :-

- (1) 24713 (2) 27431 (3) 13427 (4) 42731

Ans. (2)

Sol. PAINT = 27431

60. The code for the word NEAT is :-

- (1) 1752 (2) 3751 (3) 3571 (4) 5317

Ans. (3)

Sol. NEAT = 3571

61. The code for the word TAPE is :-

- (1) 1725 (2) 1572 (3) 7251 (4) 5217

Ans. (1)

Sol. TAPE = 1725

62. The code for the word TAB is :-

- (1) 761 (2) 146 (3) 567 (4) 176

Ans. (4)

Sol. TAB = 176

63. If in any code language MARCH is written as KCPEF. What will be the code of ORDER in the same code language?

- (1) MTBGP (2) MPBCP (3) LOABO (4) QPFCT

Ans. (1)

Sol.

M	A	R	C	H	O	R	D	E	R
-2↓	+2↓	-2↓	↓	↓	↓	↓	↓	↓	↓
K	C	P	E	F	M	T	B	G	P

64. If in any code language PEN is writterns as 66. What will be the code of LEG in the same code language?
 (1) 67 (2) 65 (3) 53 (4) 24

Ans. (2)

Sol. P = 16, E = 5, N = 14 So, $16 \times 5 - 14 = 66$

65. If in any code language EIMPR is writterns as CFIM. How will be writtern GKOR in that code language?
 (1) FIJN (2) EHKM (3) EILN (4) FHLN

Ans. (2)

Sol.
$$\begin{array}{cccc} E & I & M & R \\ -2\downarrow & -3\downarrow & -4\downarrow & \downarrow \\ C & F & I & M \end{array} \quad \begin{array}{cccc} G & K & O & R \\ -2\downarrow & \downarrow & \downarrow & \downarrow \\ E & H & K & M \end{array}$$

66. If in any code language FISH is writterns as IMXN. What will be the code of MALE in the same code language?
 (1) PDOH (2) QEPJ (3) ODPJ (4) PEQK

Ans. (4)

Sol.
$$\begin{array}{cccc} F & I & S & H \\ +3\downarrow & +4\downarrow & +5\downarrow & +6\downarrow \\ I & M & X & N \end{array} \quad \begin{array}{cccc} M & A & L & E \\ +3\downarrow & +4\downarrow & +5\downarrow & +6\downarrow \\ P & E & Q & K \end{array}$$

67. In any code language PD is writterns as 8. What will be code of HB in the same code language ?
 (1) 16 (2) 10 (3) 4 (4) 18

Ans. (3)

Sol.
$$\begin{array}{ccc|ccc} P & D & \longrightarrow & 8 & H & D \\ 16 & 4 & & & 8 & 2 \\ \sqrt{16} & \sqrt{4} & & & \sqrt{8} & \sqrt{2} \\ 4 & \times & 2 & = & 2\sqrt{2} & \sqrt{2} \\ & & & & 2\sqrt{2} & \times \sqrt{2} & = & 4 \end{array}$$

Direction ; In Question 68 to 77 number are placed in figure on the basis of some rules. One place is vacant which is indicated as (?). Find out the correct alternative for the vacant place and write its number agains the proper question number on your asnwrsheet :-

68.
$$\begin{array}{ccc} \begin{array}{c} 23 \\ \triangle \\ 169 \\ \hline 16 \quad 12 \end{array} & \begin{array}{c} 26 \\ \triangle \\ 169 \\ \hline 15 \quad 13 \end{array} & \begin{array}{c} 29 \\ \triangle \\ ? \\ \hline 14 \quad 17 \end{array} \\ (1) 169 & (2) 267 & (3) 209 \quad (4) 389 \end{array}$$

Ans. (3)

Sol.
$$\begin{array}{ccc} \begin{array}{c} 23 \\ \triangle \\ 169 \\ \hline 16 \quad 12 \end{array} & \begin{array}{c} 26 \\ \triangle \\ 169 \\ \hline 15 \quad 13 \end{array} & \begin{array}{c} 29 \\ \triangle \\ ? \\ \hline 14 \quad 17 \end{array} \\ 16 \times 12 - 23 & 15 \times 13 - 26 & 14 \times 17 - 29 \\ = 169 & = 169 & = 209 \end{array}$$

69. $\begin{array}{c} 4 \\ \triangle \\ 109 \\ \hline 19 \quad 26 \end{array}$ $\begin{array}{c} 3 \\ \triangle \\ 109 \\ \hline 45 \quad 37 \end{array}$ $\begin{array}{c} 2 \\ \triangle \\ ? \\ \hline 59 \quad 42 \end{array}$

(1) 103 (2) 105 (3) 109 (4) 225

Ans. (3)

Sol. $19 + 26 + 4^3 = 45 + 64 = 109$ $15 + 37 + 3^3 = 82 + 27 = 109$

70. $\begin{array}{c} 16 \\ \triangle \\ 108 \\ \hline 36 \quad 81 \end{array}$ $\begin{array}{c} 9 \\ \triangle \\ 84 \\ \hline 49 \quad 64 \end{array}$ $\begin{array}{c} 25 \\ \triangle \\ ? \\ \hline 16 \quad 49 \end{array}$

(1) 60 (2) 70 (3) 90 (4) 38

Ans. (2)

Sol. $\begin{array}{c} 16 \\ \triangle \\ 108 \\ \hline 36 \quad 81 \end{array}$ $\begin{array}{c} 9 \\ \triangle \\ 84 \\ \hline 49 \quad 64 \end{array}$ $\begin{array}{c} 25 \\ \triangle \\ ? \\ \hline 16 \quad 49 \end{array}$

$\sqrt{16} = 4$, $\sqrt{36} = 6$ $\sqrt{9} = 3$, $\sqrt{49} = 7$ $\sqrt{16} = 4$, $\sqrt{49} = 7$
 $\sqrt{81} = 9$ $\sqrt{64} = 8$ $\sqrt{25} = 5$
 $\frac{4 \times 6 \times 9}{2} = 108$ $\frac{8 \times 3 \times 7}{2} = 84$ $\frac{5 \times 4 \times 7}{2} = 70$

71. $\begin{array}{c} 9 \\ \triangle \\ 198 \\ \hline 7 \quad 4 \end{array}$ $\begin{array}{c} 8 \\ \triangle \\ 34 \\ \hline 5 \quad 3 \end{array}$ $\begin{array}{c} 7 \\ \triangle \\ ? \\ \hline 6 \quad 2 \end{array}$

(1) 89 (2) 84 (3) 135 (4) 159

Ans. (4)

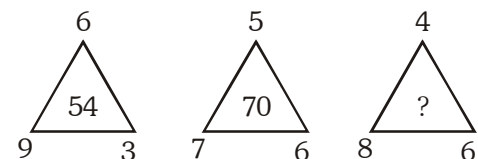
Sol. $7^3 - 4^3 - 9^2 = 343 - 64 - 81 = 198$ $5^3 - 3^3 - 8^2 = 125 - 27 - 64 = 34$

72. $\begin{array}{c} 6 \\ \triangle \\ 13 \\ \hline 16 \quad 25 \end{array}$ $\begin{array}{c} 8 \\ \triangle \\ 13 \\ \hline 9 \quad 36 \end{array}$ $\begin{array}{c} 10 \\ \triangle \\ ? \\ \hline 4 \quad 49 \end{array}$

(1) 12 (2) 13 (3) 35 (4) 63

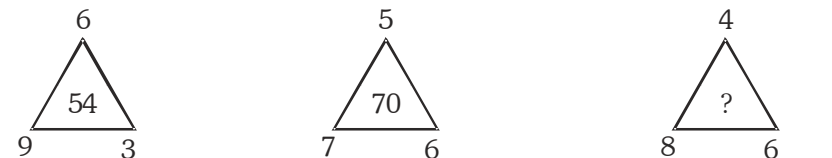
Ans. (1)

Sol. $\left[\sqrt{16} \times \sqrt{25} + 6 \right] / 2 = (4 \times 5 + 6) / 2 = (20 + 6) / 2 = 26 / 2 = 13$

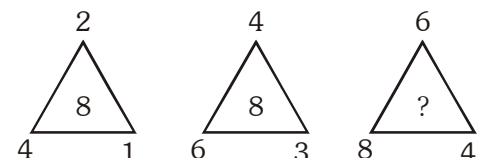
73. 

(1) 44 (2) 32 (3) 72 (4) 64

Ans. (4)

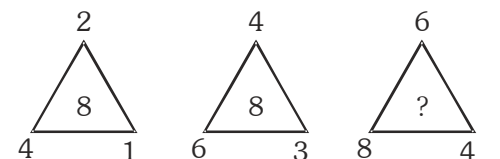
Sol. 

$\frac{6 \times 3 \times 9}{3} = 54$ $\frac{5 \times 7 \times 6}{3} = 70$ $\frac{8 \times 4 \times 6}{3} = 64$

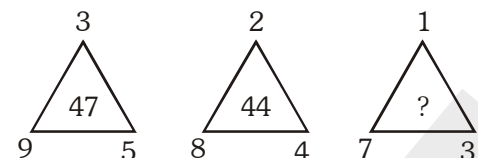
74. 

(1) 8 (2) 10 (3) 12 (4) 14

Ans. (3)

Sol. 

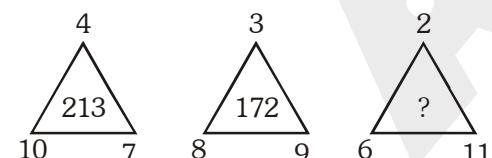
$\frac{4 \times 2}{1} = 8$ $\frac{6 \times 4}{3} = 8$ $\frac{8 \times 6}{4} = 12$

75. 

(1) 44 (2) 39 (3) 20 (4) 32

Ans. (2)

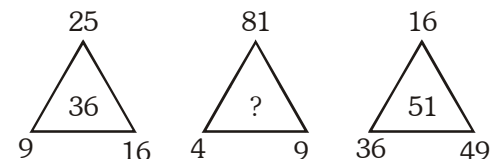
Sol. $9^2 - 5^2 - 3^2 = 81 - 25 - 9 = 47$ $8^2 - 4^2 - 2^2 = 64 - 16 - 4 = 44$

76. 

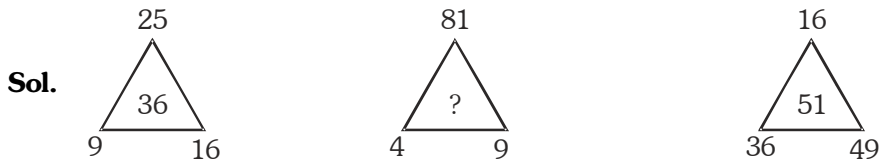
(1) 165 (2) 131 (3) 173 (4) 132

Ans. (1)

Sol. $10^2 + 7^2 + 4^3 = 100 + 49 + 64 = 213$ $8^2 + 9^2 + 3^2 = 64 + 81 + 27 = 172$

77. 
 (1) 29 (2) 42 (3) 27 (4) 86

Ans. (2)



$$\begin{array}{lll} \sqrt{25} = 5 & \sqrt{4} = 2 & \sqrt{36} = 6 \\ \sqrt{9} = 3 & \sqrt{9} = 3 & \sqrt{49} = 7 \\ \sqrt{16} = 4 & \sqrt{81} = 9 & \sqrt{16} = 4 \\ 5 + 3 + 4 = 12 \times 3 & (9 + 3 + 2) \times 3 = 42 & (6 + 7 + 4) \times 3 = 51 \\ = 36 & & \end{array}$$

78. If the first day of any month is Monday. What date will be on the fourth Saturday of that month?
 (1) 26 (2) 27 (3) 28 (4) 29

Ans. (2)

- Sol. 1 - Monday
 2 - Tuesday
 3 - Wednesday
 4 - Thursday
 5 - Friday
 6 - Saturday
 $6 + 7 = 13$
 $13 + 7 = 20$
 $20 + 7 = 27$ (saturday)

79. If a child born on 3rd August 2020 on Monday. After 5 month and five day what date and day will be ?
 (1) 9 January, Saturday
 (2) 10 January, Sunday
 (3) 7 January, Thursday
 (4) 8 January, Wednesday

Ans. (1)

- Sol. 3rd August 2020 - Monday
 5 Months
 3rd January
 5 day after
 9 January saturday

80. A frog leaps each time for two feet and rolls down for half feet. According to this procedure how many times will it attempt to reach a height of nine feet.

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

Ans. (4)

Sol. Two steps means 1.5 feet

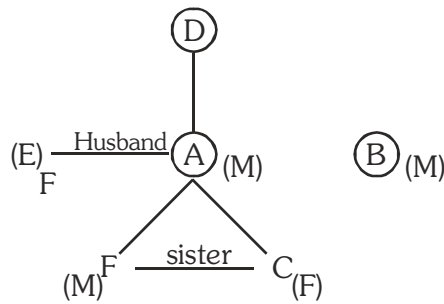
$$1.5 + 1.5 + 1.5 + 1.5 + 1.5 = 7.5 \text{ (5 steps)}$$

$$7.5 + 2 = 9.5 \text{ (6 steps)}$$

Direction : Questions 81 to 85 are based on the information given below. Read the information carefully and find out the correct answer from the four alternatives and write its alternative number to your answer sheet against the proper question number—

There is a family consisting of six members A, B, C, D, E, and F. C is the sister of F. B is the brother of E's husband. F is the grandson of D.

Solutions : For 81 to 85



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

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

Ans. (1)

Sol. Three – A, B, F

82. How is B related to F?

- (1) Father (2) brother (3) Uncle (4) Aunt

Ans. (3)

Sol. Uncle

83. Who is the husband of "E"?

- (1) D (2) B (3) F (4) A

Ans. (4)

Sol. A

84. Which is the group of male members :-

- (1) a, b, c (2) d, b, a (3) d, e, f (4) a, c, c

Ans. (None of these)

Sol. None of these

85. How is E related to C?

- (1) Mother (2) Aunt (3) Uncle (4) Father

Ans. (1)

Sol. Mother

Direction : Read the following statement carefully and choose the correct answer for the question number 86 to 90. Write the correct alternative number on your answer sheet.

Five sister, Meena, Reena, Teena, Beena and Neena are there in a family. Meena was born on 1989. Teena is seven years older than Neena, Beena is five years older than Neena while seven years younger than Reena

Solution : For Q.86 to Q.90.

Meena	1989
Reena	1992
Teena	1997
Beena	1999
Neena	2004

86. What is the age difference between Meena and Beena?

- (1) 3 (2) 5 (3) 7 (4) 10

Ans. (4)

Sol. Beena – Meena = 10 years

87. Who is the youngest among them?

- (1) Beena (2) Neena (3) Reena (4) Teena

Ans. (2)

Sol. Neena

88. Who is the middle order among them?

- (1) Teena (2) Reena (3) Beena (4) Neena

Ans. (1)

Sol. Teena

89. What is the age difference between Reena and Teena?

- (1) 2 (2) 3 (3) 5 (4) 7

Ans. (3)

Sol. 5 years

90. Who was born in leap year?

- (1) Teena - Reena (2) Beena - Meena (3) Neena - Teena (4) Reena - Neena

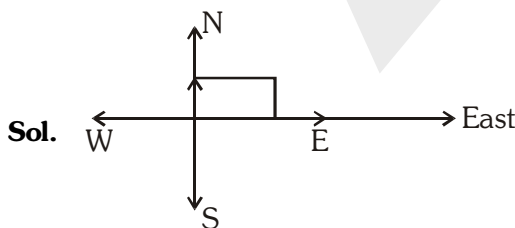
Ans. (4)

Sol. Reena, Neena

91. A student walks towards north direction, he turns to his right and turns right again, after that he turns to his left. Now in which direction is the going?

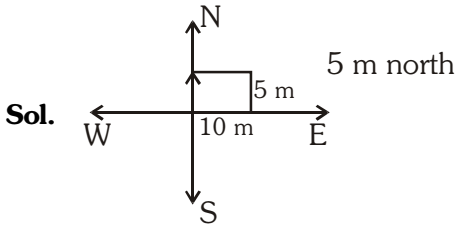
- (1) East (2) West (3) North (4) South

Ans. (1)



- 92.** A student walks for 10 meter towards east from any point, turning to her left she walks for 5 meter, she turns to the left again and walks for 10 meter, Now how far and in which direction is she from the beginning point?
 (1) 25 meter North (2) 5 meter West (3) 5 meter, North (4) 15 meter, West

Ans. (3)



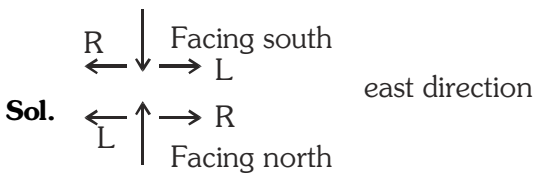
- 93.** If in any code language, sun is called moon, moon is called as stars, stars is called cloud, cloud is called water and water is called sun, then by whom will it rain _____.
 (1) Cloud (2) Stars (3) Sun (4) Water

Ans. (4)

Sol. It will rain by clouds, clouds is called water

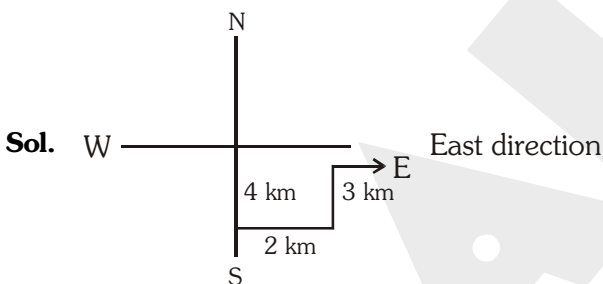
- 94.** Two persons are standing facing each other. If one's face is towards north, then in which direction will be left hand of the second person?
 (1) West (2) South (3) East (4) North

Ans. (3)



- 95.** Ram walks for 4 km towards South, turning to his left he walks for 2 km he turns to his left again and walks for 3 km, then he turns to his right. In which direction is his face now?
 (1) East (2) West (3) North (4) South

Ans. (1)



Direction : Question from 96 to 100 are based on the alphabet series which is given below. Read the alphabet series carefully and find out the correct answer for each question and write its alternative number on your answer sheet against the proper question number.

n o i j o n p t a k t l n o p u j e t b n a p u b

- 96.** Which letter is been repeated the most in this series?

- (1) o (2) n (3) p (4) t

Ans. (2)

Sol. n repeated the most

97. In this series, how many times the vowel occurs just before and just after consonant?
(1) one times (2) two times (3) three times (4) four times

Ans. (3)

Sol. three times

ijo opu apu

98. In this series many time the vowel occurs just before the consonant but not just after consonant?
(1) one times (2) two times (3) three times (4) four times

Ans. (3)

Sol. onp akt etb

three times

99. In this series, how many times the vowel occurs just after consonant but not just before consonant?
(1) two times (2) one times (3) four times (4) three times

Ans. (3)

Sol. four times

100. How many consonant letters are used in the series ?

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

Ans. (2)

Sol. n, j, p, t, k, l, b