## SAMPLE PAPER-01

## MENTAL ABILITY TEST

Direction (Q. 1 to Q.6): In each question, the number/ letters are arranged based on some pattern or principle. Choose the correct answer for the term marked by the symbol (?) :

1. $5,8,13,21,34$, ?
(1) 13
(2) 21
(3) 55
(4) 8
2. $-\frac{1}{4},-1,-\frac{9}{4},-4,-\frac{25}{4}$,?
(1) -7
(2) -36
(3) -9
(4) -6
3. $2,5,10,17,26$, ?
(1) 29
(2) 31
(3) 33
(4) 37
4. $2,6,12,20,30$,?
(1) 36
(2) 38
(3) 40
(4) 42
5. AM3, DJ5, GG7, ?
(1) JD11
(2) ID9
(3) JE11
(4) JC9
6. $\mathrm{aBc}, \mathrm{deF}, \mathrm{Ghi}, \mathrm{jKl}$ ? ?
(1) MnO
(2) nMO
(3) mnO
(4) mno
7. If the word 'EFFECT' is coded as DEEDBS, then the code RSTCX stands for the word.
(1) STUDY
(2) SEEDS
(3) SPEED
(4) FACTS
8. Identify the missing sequence of letters :

FINE, JMRI, NQVN, ?
(1) SVYS
(2) RUZR
(3) QTWQ
(4) PTVP
9. What number should replace the question mark?

(1) 512
(2) 454
(3) 729
(4) 464
10. Which one of the following words can be formed using the letters of 'CONFIDENT' ?
(1) CODES
(2) FINER
(3) NOTICE
(4) TENANT
11. From the four alternatives, only one differs from the remaining three. Identify it :
(1) Hockey
(2) Cricket
(3) Football
(4) Carrom
12. From the four alternatives, only one differs from the remaining three. Identify it :
(1) Teacher
(2) Lawyer
(3) Driver
(4) Robber
13. Out of four pairs, only one pair is different from the other three. Find it :
(1) Author : Pen
(2) Doctor : Stethoscope
(3) Gardener : Garden
(4) Soldier: Gun
14. Out of four pairs, only one pair is different from the other three. Find it :
(1) Oil : Liquid
(2) Wall : Bricks
(3) Shoes : Leather
(4) Furniture : Wood
15. A is B's sister. C is B's mother. D is C's father. E is D's mother. How is A related to D ?
(1) Daughter
(2) Granddaughter
(3) Grandmother
(4) Grandson
16. If $A$ stands for,$+ B$ stands for,$- C$ stands for $\times$ and D stands for $\div$, then :
64B28D7A5C12 =
(1) 120
(2) 60
(3) 4
(4) 0
17. If the symbols $\times$ and + are interchanged and number 4 and 2 are interchanged then : $6+4 \times 2=$
(1) 12
(2) 16
(3) 14
(4) 20
18. If $4 * 3=6427 ; 1 * 7=1343 ; 2 * 5=8125$, then $3 * 6=$ ?
(1) 12726
(2) 27125
(3) 27216
(4) 21627

Direction (Q. 19 \& Q.20): Some symbols is indicating some relations are given below :
$\Delta=$ greater than
$\oplus=$ not greater than
$\theta=$ equal to
$\varnothing=$ not equal to
$\otimes=$ less than
$\square=$ not less than
19. $\mathrm{a} \otimes \mathrm{b} \theta \mathrm{c}$ implies that :
(1) $a \square c \theta b$
(2) $b \otimes a \square c$
(3) $c \square b \otimes a$
(4) $a \varnothing b \square c$
20. $\mathrm{a} \Delta \mathrm{b} \Delta \mathrm{c}$ does not imply that :
(1) $b \oplus a \Delta c$
(2) $\mathrm{b} \Delta \mathrm{a} \theta \mathrm{c}$
(3) $c \oplus b \varnothing a$
(4) $c \oplus b \otimes a$

Direction (Q. 21 to $\mathbf{Q . 2 3 ) : ~ I n ~ t h e ~ f o l l o w i n g ~ d i a g r a m , ~ t h e ~}$ triangle represents graduates, the square represents women and the circle represents unemployed persons.
Choose the correct answer for each questions.

21. Women graduates who are not employed is represent by :
(1) C
(2) F
(3) D
(4) B
22. Women who are neither unemployed nor graduates are represented by :
(1) A
(2) D
(3) C
(4) B
23. Unemployed who are either women or graduates are represented by :
(1) B and C
(2) B and D
(3) A and B
(4) A and D
24. Identify the missing number :

(1) 37
(2) 27
(3) 39
(4) 36
25. Three pillars $P, Q, R$ are constructed in a ground. If $Q$ is 300 m eastward of $P$ and if $R$ is exactly at north of P and if the distance between R and Q is 500 m , then the distance between P and R is :
(1) 200 m
(2) 100 m
(3) 250 m
(4) 400 m
26. Identify the missing number in the second figure:

(1) 50
(2) 23
(3) 61
(4) 71
27. Find the missing number :


| 3 | 3 |
| :--- | :--- |
| 9 | $?$ |

(2) 6
(1) 3
ing number:
(3)

(2) 14
(3) 7
(4) 5
29. The next figure in the following sequence of figure:

(1)

(2)

(3)

(4)

30. The next figure in the following sequence of figures:

(1)

(2)

(3)

(4)

31. Identify the missing figure :

(1)

(2)

(3)

(4)

32. Identify the missing figure:

(1)

(2)

(3)

(4)

33. Identify the figure from the four alternatives given below to fit the pattern :

(1)

(2)

(3)

(4)

34. Identify the figure from the four alternatives given below to fit the pattern :

(1)

(2)

(3)

(4)


35. Identify the figure from the four alternatives given below to fit the pattern :

(1)

(2)

(3)

(4)

36. Identify the figure from the four alternatives given below to fit the pattern :



?
(1)

(2)

(3)

(4)

37. Which one will complete the diagram?

(1)

(2)

(3)

(4)

38. The mirror image of the word HOSPITAL is :
(1) LALIqZOH
(2) JATIGZOH
(3) HǪqITA」
(4) LATIqZOH
39. Three different positions of a dice are given below. Find the number on the face opposite the face showing 3 ?

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

Direction (Q. 40 to $\mathbf{Q . 4 4 ) : ~ R e a d ~ c a r e f u l l y ~ t h e ~}$ information given below and answer the questions:
There are five persons $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}$ and E . One is Pilot, One is Sailor and One is Director. A and D are unmarried ladies and unemployed. None of the ladies is either Pilot or Sailor. There is a married couple in which E is the husband. B is brother of C. B is neither Sailor nor Director.
40. Who is the Pilot?
(1) C
(2) E
(3) B
(4) D
41. Who is the wife of $E$ ?
(1) C
(2) D
(3) A
(4) B
42. Who is the Sailor ?
(1) C
(2) B
(3) D
(4) E
43. Who is the director?
(1) B
(2) C
(3) E
(4) A
44. The three ladies are?
(1) A, B, D
(2) A, E, D
(3) A, C, D
(4) A, B, C
45. Which one of the following pairs is different from other three pairs ?
(1) ABCD : DCBA
(2) $1234: 4321$
(3) AB12 : 21BA
(4) WXYZ : ZXYW
46. Choose the odd one :
(1) Metre
(2) Furlong
(3) Acre
(4) Mile
47. Choose the odd one :
(1) Broad : Wide
(2) Light : Heavy
(3) Large : Big
(4) Tiny : Small
48. Choose the missing word :

Pigeon: Peace: White Flag : ?
(1) Fight
(2) Victory
(3) Defeat
(4) Surrender
49. Find the missing number in the following :

| 3 | 2 | 3 |
| :---: | :---: | :---: |
| 6 | 1 | $?$ |
| 4 | 36 | 8 |
| 72 | 72 | 72 |

(1) 4
(2) 1
(3) 9
(4) 3
50. A, B, C, D, E, F, G, H are sitting around a round table in same order at equal distance. Their position are clockwise. If G sits in the north, then D is in the direction of :
(1) South - West
(2) South
(3) North - West
(4) South - East

Direction (Q. 51 to Q.53): Choose the correct alternative that will continue the same pattern and replace the question mark in the given series.
51. A, CD, GHI, ?, UVWXY
(1) KLMN
(2) LMNO
(3) MNOP
(4) NOPQ
52. ADVENTURE, DVENTURE, DVENTUR, ?, VENTU
(1) VENTUR
(2) VENTURE
(3) DVENT
(4) DVENTU
53. UPI, ?, ODP, MBQ, IAW
(1) SIJ
(2) SHJ
(3) RHJ
(4) TIJ
54. Which of the following diagrams indicates the relation between Judge, Thieves and Criminals?
(1)

(2)

(3)

(4)

55. Which of the following diagrams indicates the relation between Iron, Lead and Nitrogen?
(1)

(2)

(3)

(4)

56. Which of the following diagrams indicates the relation between Bulb, Lamp and light?
(1)

(2)

(3)

(4)

57. In the following figure, triangle represents 'girls', square represents 'players' and circle represents 'coach'. Which part of the diagram represents the girls who are players but not coach ?

(1) $P$
(2) Q
(3) R
(4) S
58. The diagram given below represents those students who play Cricket, Football and Kabaddi. Study the diagram and identify the students who play all three games.

(1) $P+Q+R$
(2) $V+T$
(3) $S+T+V$
(4) S

Direction (Q. 59 to Q.62): P, Q, R, S, T, U, V and W are sitting round the circle and are facing the centre:

1. P is second to the right of T who is the neighbour of R and V .
2. $S$ is not the neighbour of $P$.
3. $V$ is the neighbour of $U$.
4. $Q$ is not between $S$ and $W$ and $W$ is not between $U$ and $S$.
Answer the questions from the above sitting arrangement.
5. Who two of the following are not neighbours ?
(1) RV
(2) UV
(3) RP
(4) QW
6. Who is immediate right to the V ?
(1) P
(2) U
(3) R
(4) T
7. Which of the following is correct?
(1) P is to the immediate right of Q
(2) $R$ is between $U$ and $V$
(3) Q is to the immediate left of W
(4) U is between W and S
8. What is the position of $S$ ?
(1) Between U and V
(2) Second to the right of P
(3) To the immediate right of W
(4) Data inadequate

Direction (Q. 63 to Q.66): Five girls are sitting on a bench to be photographed Seema is to the left of Rani and to the right of Bindu, Mary is to the right of Rani. Reeta is between Rani and Mary. Answer the questions from the above sitting arrangement.
63. Who is sitting immediate right to Reeta ?
(1) Bindu
(2) Rani
(3) Mary
(4) Seema
64. Who is in the middle of the photograph?
(1) Bindu
(2) Rani
(3) Reeta
(4) Seema
65. Who is second from the right in the photograph?
(1) Mary
(2) Rani
(3) Reeta
(4) Bindu
66. Who is second from the left in photograph?
(1) Reeta
(2) Mary
(3) Bindu
(4) Seema

Direction (Q. 67 to Q.69): Choose the word which is different from the rest.
67. (1) Producer
(2) Director
(3) Investor
(4) Financer
68. (1) Calendar
(2) Year
(3) Day
(4) Month
69. (1) Mumbai
(2) Cochin
(3) Kandla
(4) Mysore
70. If $\mathrm{A}+\mathrm{B}$ means A is the father of $\mathrm{B} ; \mathrm{A}-\mathrm{B}$ means $A$ is the brother $B ; A \% B$ means $A$ is the wife of $B$ and $A \times B$ means $A$ is the mother of $B$, which of the following shows that M is the maternal grandmother of T ?
(1) $M \times N \% S+T$
(2) $\mathrm{M} \times \mathrm{N}-\mathrm{S} \% \mathrm{~T}$
(3) $\mathrm{M} \times \mathrm{S}-\mathrm{N} \% \mathrm{~T}$
(4) $\mathrm{M} \times \mathrm{N} \times \mathrm{S} \% \mathrm{~T}$
71. 1. B 5 D means B is the father of D .
2. B9D means $B$ is the sister of $D$.
3. B 4 D means B is the brother of D .
4. B3D means $B$ is the wife of $D$.

Which of the following means $F$ is the mother of $K$ ?
(1) F3M5K
(2) F5M3K
(3) F9M4N3K
(4) F3M5N3K
72. If POND is coded RSTL how is HEAR written in the code ?
(1) GHIJ
(2) JIGZ
(3) GHIZ
(4) None of these
73. If SPIDER is coded as PSDIRE, how is COMMON written in that code?
(1) OCMMNO
(2) OCMMOO
(3) OCMOON
(4) OCMOMN

Direction (Q. 74 to $\mathbf{Q . 7 6}$ ): All the six members of a family $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}, \mathrm{E} \& \mathrm{~F}$ are staying together. B is the son of $C$ but $C$ is not the mother of $B$. A \& $C$ are married couple. E is the brother of $\mathrm{C} . \mathrm{D}$ is the daughter of A . F is the brother of $B$.
74. How many male members are there in the family?
(1) 1
(2) 2
(3) 3
(4) 4
75. Who is the mother of $B$ ?
(1) D
(2) F
(3) A
(4) E
76. How many children does $A$ have?
(1) 1
(2) 3
(3) 2
(4) 4
77. Which digit will appear on the face opposite to the face with number 3 ?

(1) 4
(2) 5
(3) 6
(4) 2
78. Which number is on the face opposite to 6 ?

(1) 4
(2) 1
(3) 2
(4) 3
79. Which sign will be opposite to ' + ' ?

(1) $\%$
(2) -

(3) $\times$
(4) $\$$

Direction (Q. 80 to $\mathbf{Q . 8 7 ) : ~ F i n d ~ o u t ~ t h e ~ a l t e r n a t i v e ~ w h i c h ~}$ will replace the question mark.
80. AZBY: CXDW :: EVFU : ?
(1) GTHS
(2) GHTS
(3) GSTH
(4) TGSH
81. ZRYQ : KCJB :: PWOV : ?
(1) GBHA
(2) ISJT
(3) ELDK
(4) EOFP
82. Computer : fqprxvht :: Language : ?
(1) oxpixdig
(2) ocqicyig
(3) ocqixcjg
(4) ocqixcig
83. ACEG : ? :: BDFH : KMOQ
(1) NLPR
(2) LMNO
(3) JLNP
(4) JNLO
84. $\mathrm{M} \times \mathrm{N}: 13 \times 14:: \mathrm{F} \times \mathrm{R}:$ ?
(1) $14 \times 15$
(2) $5 \times 17$
(3) $6 \times 18$
(4) $7 \times 19$
85. Conference : Chairman :: Newspaper:?
(1) Reporter
(2) Distributor
(3) Printer
(4) Editor
86. Problem figures

(1)

(2)

(3)

(4)

87. Problem Figures

(1)

(2)

(3)

(4)

88. Find the number of triangles in the figure below. Problem figure

(1) 8
(2) 10
(3) 12
(4) 14
89. Find the minimum number of straight lines required to make the given figure.

(1) 16
(2) 17
(3) 18
(4) 19
90. Count the number of squares in the given figure.

(1) 8
(2) 12
(3) 15
(4) 18

Direction (Q.91 \& Q.92) : Find out the alternative figure which contains figure $(\mathrm{x})$ as its part.
91.

(x)
(1)

(2)

(3)

(4)

92.

(x)
(1)

(2)

(3)

(4)


Direction (Q. 93 \& Q.94): Find out which of the figures (1), (2), (3) and (4) can be formed from the pieces given in figure $(\mathrm{x})$.
93.

(x)
(1)

(2)

(3)

(4)

94.

(1)

(2)

(3)

(4)


ALLEN
Direction (Q. 95 to $\mathbf{Q . 9 8}$ ): Identify the figure that completes the pattern (x).
95.

(x)
(1)

(2)

(3)

(4)

96.

(1)

(2)

(3)

(4)

97.

(1)

(2) $\triangle \triangle$
$\triangle \triangle$
(3)

(4)

98.

(1)

(2)

(3)

(4)


Direction (Q. 99 \& Q.100): In these series, there are both letter pattern and number pattern. Fill the blank in series.
99. $\mathrm{ZA}_{5}, \mathrm{Y}_{4} \mathrm{~B}, \mathrm{XC}_{6}, \mathrm{~W}_{3} \mathrm{D}$, ?
(1) $E_{7} V$
(2) $\mathrm{V}_{2} \mathrm{E}$
(3) $\mathrm{VE}_{5}$
(4) $\mathrm{VE}_{7}$
100. DEF, $\mathrm{DEF}_{2}, \mathrm{DE}_{2} \mathrm{~F}_{2}, \mathrm{DE}_{2} \mathrm{~F}_{2}$, ?, $\mathrm{D}_{2} \mathrm{E}_{2} \mathrm{~F}_{3}$
(1) $\mathrm{DEF}_{3}$
(2) $\mathrm{D}_{3} \mathrm{EF}_{3}$
(3) $D_{2} \mathrm{E}_{3} \mathrm{~F}$
(4) $\mathrm{D}_{2} \mathrm{E}_{2} \mathrm{~F}_{2}$

