Read the following instructions carefully before you answer the questions:

1. Mental Ability Test shall be administered in first 90 minutes. Thereafter Scholastic Aptitude Test shall be administered. Answer to Part-I - Mental Ability Test are to be given on the given answer sheet. The Mental Ability answer sheet will be collected after first 90 minutes. After 5 minute Part-II Scholastic Aptitude answer sheet & after 20 minutes Question booklet will be supplied to you, which will also be collected after the time is over.

2. Please write you Roll No. as given on your Admission Card very clearly (only one digit in one box) Please see that no box is left unfilled even zeroes appearing in the Roll No. are correctly transferred to the appropriate boxes on the booklet and the Answer Sheet.

3. For this paper, prescribed duration is 1.30 hours (90 minutes).

4. Answer to each question is to be indicated by blackening, with HB pencil, full darken corresponding oval of correct one alternative number by HB pencil. The scanner will not accept the answer if the oval is not filled completely dark if so the candidate will be responsible for it. If you want to change the wrong answer then rubit and indicate by blackening another oval.

Directions (1 to 5) : In each question there is a number series with one term missing shown by question mark (?). This term in one of the alternatives among the four numbers given under it. That number is -

1. 5, 10, 13, 26, 29, 58, 61, (?)
   (A) 64      (B) 122      (C) 125      (D) 128

2. 13, 17, 19, 23, 29, 31, (?), 41
   (A) 33      (B) 37      (C) 39      (D) 35

3. 3, 7, 6, 5, 9, 3, 12, 1, (?), –1
   (A) 3      (B) 4      (C) 13      (D) 15

4. 0, 2, 6, 12, (?), 30
   (A) 25      (B) 27      (C) 16      (D) 20

5. 16, 33, 65, 131, (?), 523
   (A) 261      (B) 521      (C) 613      (D) 721

Directions (6 to 10) : These questions consists of a number series which contains a wrong term. This term is given as one of the four alternatives among the four numbers given below. The wrong term is -

6. 10, 14, 16, 18, 21, 24, 26
   (A) 18      (B) 21      (C) 24      (D) 26

7. 6, 9, 15, 21, 24, 28, 36
   (A) 21      (B) 24      (C) 28      (D) 30

8. 0, 9, 26, 65, 125, 217, 342
   (A) 9      (B) 125      (C) 65      (D) 342

9. 5, 10, 17, 28, 42, 58, 77
   (A) 42      (B) 28      (C) 58      (D) 17

10. 1, 6, 40, 120, 360, 720, 720
    (A) 120      (B) 1      (C) 6      (D) 40

Directions (11 to 14) : Each question consists of four groups. One set is different from other three in someway. Find out the different set -

11. (A) NMRQ      (B) FEIH      (C) SRWV      (D) HGLK

12. (A) ATLER      (B) TALER      (C) TALEN      (D) LATER
13. (A) M.S. DHONI  (B) SACHIN TENDULKER  (C) VISHVNAHANAND  (D) SHEN BARN

14. (A) MERCURY  (B) IRON  (C) ZINC  (D) COPPER

Directions (15 to 19): In the following questions there is a letter series with one term missing shown by (?). Find this term and an circle its serial.

15. GIK, EGI, (?), ACE, YAC
   (A) ECG  (B) CEG  (C) GCE  (D) EGC

16. ABYZ, ADWZ, (?), AHSZ
   (A) AFUZ  (B) AUFZ  (C) ZFU A  (D) ZUFA

17. OBDR, (?), SZBV, UYAX, WXZZ
   (A) WUWZ  (B) YTVB  (C) ASVD  (D) QACT

18. VTRP, NLJH, FDBZ, XVTR, (?)
   (A) JLPN  (B) LJPN  (C) NPLJ  (D) PNLJ

19. BDFH, DFHJ, (?), HJLN, JLN D
   (A) JLN R  (B) FHJL  (C) JLN R  (D) HIJLN

Directions (20 to 21): In each question there are circles. Certain numbers are given inside/outside the circles according to a particular rule. In each question one of the circle has a (?) mark in side it. Choose the correct answer to fill in the space marked (?) from the given alternatives.

20. 
   
   (A) 9  (B) 2  (C) 3  (D) 4

21. 
   
   (A) 2  (B) 5  (C) 7  (D) 31

Directions (22 to 24): These questions are based on letter series in which some of the letters are missing. The missing letters are given in the proper sequence in one of the alternatives among the four given under each question. Find out the correct alternatives for each question.

22. a ___ ab ___ aa ___ bb
   (A) abbab  (B) ababa  (C) baabb  (D) None of these

23. nc ___ ddc ___ nn ___ d ___ d ___ nn
   (A) dncdd  (B) dndcc  (C) dncdc  (D) ddnad

24. ab ___ cba ___ bccb ___ a ___ cc ___ aa ___ c
   (A) bcaacb  (B) caabbb  (C) caabcb  (D) cbcacc

Directions (25 to 29): Out of nine cells of a square one cell is left blank, and in the rest of the cells numbers are written which follow some rule. Get the rule and find out the proper option for the blank cell (?)

25. 
   
   (A) 72  (B) 12  (C) 18  (D) 13
Directions (30 to 32): Find out the correct alternative of the questions based on the Dias figures.

30. The number at the bottom of fig. (iv) will be:
(A) 3  (B) 4  (C) 6  (D) 2

31. The number opposite the face having the no. 5 will be:
(A) 1  (B) 3  (C) 4  (D) 6

32. The number opposite the face having the no. 6 will be:
(A) 1  (B) 5  (C) 3  (D) 4

33. The following figures is converted in to a cube. Its incorrect shall will be:

Question Figure -

Answer Figure -

(A)  (B)  (C)  (D)
34. Six girls are sitting in a circle facing towards centre. Sarita is sitting left to Kamla and right to Radha, is just opposite to Shilpi. Shilpi is sitting left to Saroj but right to Shobha. Who is sitting is between Radha and Shilpi.
(A) Soraj  (B) Sarita  (C) Shobha  (D) Kamla

35. If in the above question number the position of girls Saroj and Sarita changes their position. Similarly Shobha and Radha also changes their positions. In new positions who is sitting right to the Sarita?
(A) Soraj  (B) Shobha  (C) Kamla  (D) Shilpi

Directions (36 to 40) : The following questions are based on the arrangement of alphabets in the form of a pyramid. In each question there is some relationship between the two sets of letters on the left of the (::). The same relationship exists between the two terms on the right of which one is missing. Find the missing one from the given alternatives.

A

B   C   D

E   F   G   H   I

J   K   L   M   N   O   P

Q   R   S   T   U   V   W   X   Y

36. ABD : ADB :: AEI : ?
(A) AIE  (B) EAI  (C) IEA  (D) AEI

37. AES : AIWI :: ? : CHN
(A) CKS  (B) CFL  (C) CFT  (D) CBF

38. EFLK : ?:: GEKM : GIOM
(A) IHON  (B) HOIN  (C) IHNO  (D) HION

39. ?:: HXVH :: GSUG : GWUG
(A) FRTF  (B) FRFT  (C) TFRT  (D) FKTF

40. JKTU : ?:: JLUW : PNUS
(A) POUV  (B) POUV  (C) OVUP  (D) VOUP

Directions (41 to 45) : World in capital letters in Column-I are written in small letters in a code language in Column-II. Decode the Language and find out the correct alternative for the given letters in each questions.

<table>
<thead>
<tr>
<th>Column-I</th>
<th>Column-II</th>
</tr>
</thead>
<tbody>
<tr>
<td>GIVA</td>
<td>egji</td>
</tr>
<tr>
<td>BOAT</td>
<td>mgyt</td>
</tr>
<tr>
<td>DIP</td>
<td>qip</td>
</tr>
<tr>
<td>ROPK</td>
<td>phxt</td>
</tr>
<tr>
<td>BAD</td>
<td>gmq</td>
</tr>
<tr>
<td>WAVE</td>
<td>eacg</td>
</tr>
<tr>
<td>ROSE</td>
<td>txfa</td>
</tr>
<tr>
<td>VEX</td>
<td>equ</td>
</tr>
</tbody>
</table>

41. Code for ‘S’ is :
(A) x  (B) t  (C) f  (D) a

42. Code for ‘V’ is :
(A) j  (B) e  (C) g  (D) i

43. Code for ‘W’ is :
(A) e  (B) a  (C) g  (D) c
44. Code for letters in the word ‘GOAT’ are :
(A) gmtj (B) gmyt (C) tigy (D) yjet

45. Code for letters in the word ‘KITE’ are :
(A) yiah (B) ahfm (C) haum (D) gyhj

46. Early morning after sunrise Raju was standing in front of his house in such a way that his shadow was falling exactly behind him. He starts walking straight and walks 5 m. He turns to his left and walked 3 m. and again turning to his left walks 2 m. Now in which direction is he from his starting point ?
(A ) South (B) North (C) South-West (D) North-East

47. How many ‘8’s are there in the following sequence which are preceded by ‘5’ but not followed by ‘3’ ?
5 8 3 7 5 8 6 3 5 8 4 7 5 6 5 8 3 5 8 2 8 5
(A) 2 (B) 3 (C) 4 (D) 5

48. How many ‘6’s are there in the following sequence which are followed by 3 and preceded by 8 ?
7 4 8 6 3 2 7 1 8 6 8 9 8 1 3 6 8 9 7 8 6 3 1 3 6 8 4 3 2 3
(A) 2 (B) 3 (C) 4 (D) 5

49. B is Father of ‘C’, but ‘C’ is not son of ‘B’. What is the relation of ‘C’ to ‘B’ ?
(A) Father (B) Mother (C) Daughter (D) Niece

50. Indicating towards Mohan, ‘Ram’ says ‘He is the son of the only daughter of my grandfathe’. How ‘Ram’ is related to ‘Mohan’ ?
(A) Uncle (B) Father (C) Brother (D) Son

51. Mohammad walks 15 meters towards west, then turns to right and walks 15 meters. Now he turns towards left and walks 10 meters, then again turns towards left and walks 15 meters. Finally he turns to left and walk 45 meters and stops. What is the distance between this position and starting point and in which direction from starting point he is ?
(A) 20 meters East (B) 25 meters East (C) 20 Meters West (D) 30 Meters East

52. Starting from point ‘P’, Raj walked 30 m towards South. He then turned left and walked 40 m. He then turned left and walked 30 m. He again turned left and walked 50 m and reached a point Q. How far and in which direction is the Point Q from P ?
(A) 20 meter West (B) 10 meter East (C) 10 meter West (D) 10 meter North

Directions (53 to 57) : In the following questions some relations are written by perticular indicators as shown below :

O = greater than
Δ = not equal to
× = not less than
+ = equal to
∅ = not greater than
□ = less than

Find out the correct answer for each question.

53. If p Δ q O r, it is possible :
(A) p × q × r (B) p × q □ r (C) p □ q ∅ r (D) p ∅ q ∅ r

54. If p □ q □ r, it is not possible :
(A) p Δ q □ r (B) p □ q Δ r (C) p □ q □ r (D) p + q × r

55. If p □ q O r, it is possible :
(A) p ∅ q □ r (B) p □ q × r (C) p + q × r (D) p Δ q ∅ r

56. If p × q O r, it is not possible :
(A) p Δ q □ r (B) p × q + r (C) p Δ q O r (D) p O q + r
57. If \( p + q \times r \), it is not possible:
   (A) \( p \square q \triangleleft r \)  
   (B) \( p + q + r \)  
   (C) \( p \times q + r \)  
   (D) \( p \triangleleft q \triangleleft r \)

58. If \( \cup \) means “\( x \)”, \( \subset \) means “\( + \)”, \( \supset \) means “\( \div \)” and \( \cap \) means “\( = \)” then which will be correct in following:
   (A) \( 8 \subset 9 \cup 2 \cap 26 \supset 2 \)  
   (B) \( 54 \supset 6 \subset 2 \cap 4 \cup 3 \)  
   (C) \( 34 \subset 7 \cup 3 \cap 118 \subset 3 \cup 2 \)  
   (D) \( 2 \cup 5 \subset 14 \cap 216 \subset 9 \)

59. At the time half past three, the angle between hour and minute hands of the watch will be:
   (A) \( 75^\circ \)  
   (B) \( 60^\circ \)  
   (C) \( 90^\circ \)  
   (D) \( 105^\circ \)

60. In a class the rank of Satish is \( 25^{th} \) from the top and \( 20^{th} \) from the bottom. The total numbers of students in the class is:
   (A) 45  
   (B) 46  
   (C) 44  
   (D) 43

Directions (61 to 65) : Two Sets of the figures are given. One set of Question-figures and another set is of Answer-figures. Question-figures are arranged in a sequence. One figure from the Answer figures is to be selected such that it can be placed after the series of Question-figures. Find the correct Serial number of the selected Answer-figure.

61. Question-Figures
   ![Question-Figures](image1)

   Answer-Figures
   ![Answer-Figures](image2)

62. Question-Figures
   ![Question-Figures](image3)

   Answer-Figures
   ![Answer-Figures](image4)

63. Question-Figures
   ![Question-Figures](image5)
64. What is the number of squares in the given figure?
(A) 4  (B) 5  (C) 6  (D) 7

65. Which of the following diagrams represents Smokers, Doctors and Professionals?
(A)  (B)  (C)  (D)  

66. Which of the following diagrams represents Bangles, Ornaments, Gold Bangles?
(A)  (B)  (C)  (D) 

Directions (67 - 68): Correct relationship among the item given in the questions is represented by venn diagram.

67. Which of the following diagrams represents Smokers, Doctors and Professionals?

68. Which of the following diagrams represents Bangles, Ornaments, Gold Bangles?
Directions (69 - 71): In the following questions a figure is given, that figure is hidden in one of the given alternative figure. Find out that figure from given alternative in which question figure is hidden.

69. Question-Figures

Answer-Figures

(A)  (B)  (C)  (D)

70. Question-Figures

Answer-Figures

(A)  (B)  (C)  (D)

71. Question-Figures

Answer-Figures

(A)  (B)  (C)  (D)

Directions (72- 75) : In the following questions you have to visualize the image of the correct item.

72.  

| F | L | A | G |

Mirror

(A)  E  Γ  V  C  (B)  O  A  J  F  

(C)  E  L  A  O  (D)  O  V  A  J  F
Directions (76-78): In the questions some numbers are given in the shape of figures. Find the value of figures and then gives the correct answer of the questions.

\[
\begin{align*}
\text{Hexagon} + \text{Square} &= 10 \\
\text{Square} - \text{Triangle} &= 1 \\
\text{Hexagon} + \text{Triangle} &= 2 \\
\text{Circle} + \text{Triangle} &= 3
\end{align*}
\]

76. \[\text{Circle} + 2 \times \text{Triangle} = ?\]
(A) 2 (B) 3 (C) 4 (D) 6

77. \[\text{Square} \times \text{Triangle} = ?\]
(A) 7 (B) 9 (C) 12 (D) 14

78. \[\text{Hexagon} - \text{Square} + \text{Triangle} = ?\]
(A) 2 (B) 5 (C) 6 (D) 3
Directions (79- 83) : In the following questions there is some relationship between the two figures on the left of (::) the same relationship exists between the two terms on the right of which one is missing. Find the missing one from the given alternatives.

79. Question-Figures

Answer-Figures

80. Question-Figures

Answer-Figures

81. Question-Figures

Answer-Figures

82. Question-Figures

Answer-Figures
Directions (84-85) : In the questions two figures are given which of the alternatives figures would be formed if the first figure is superimposed on the second figure.

84. Question-Figures

Answer-Figures

(A)  (B)  (C)  (D)

85. Question-Figures

Answer-Figures

(A)  (B)  (C)  (D)
Directions (86-90): In each question four figures are given one of them does not correlate with the rest. Find out the different figure.

86.

(A)  
(B)  
(C)  
(D)  

87.

(A)  
(B)  
(C)  
(D)  

88.

(A)  
(B)  
(C)  
(D)  

89.

(A)  
(B)  
(C)  
(D)  

90.

(A)  
(B)  
(C)  
(D)  

* * * * *