NTSE STAGE – I (2017-18)
SET – D
HARYANA STATE
MENTAL ABILITY TEST (MAT)

1. Arrange the following words as per order in the dictionary.
    1. Dissident, 2. Dissolve, 3. Dissent, 4. Dissolute, 5. Dissolution
    1. 3,1,4,2,5   2. 3,1,4,5,2
    3. 3,2,4,5,1   4. 3,2,1,4,5

2. In a race Amar was running faster than Bipin. Chetan could not run as fast as Amar but ran faster than Deepak. Bipin too could not run as fast as Chetan but ran faster than Deepak. Who will be the winner in the race?
    1. Deepak   2. Chetan
    3. Bipin   4. Amar

3. If Friday falls on 15th of September 2000, what will be the day on 15th of September, 2001?
    1. Thursday   2. Friday
    3. Saturday   4. Sunday

Direction: (Q.4 to Q.6): Select the one word-pair / number-pair/letter cluster which is different from the other three alternatives.

4. 1. Light : Heavy   2. Kind : Cruel
    3. Soft : Hard   4. Vacant : Empty

5. 1. 18 : 48   2. 30 : 80
    3. 40 : 110   4. 48 : 134

6. 1. D I M P R   2. H M Q T V
    3. Q V Z B C   4. U Z D G I

7. At present the father is older than the son by 25 years. After 13 years the father's age becomes double that of son. What is father's age now?
    1. 26 years   2. 37 years
    3. 38 years   4. 50 years

8. In a row of boys, Vishal is seventh from the left and Kamal is eleventh from the right. When they exchange their places, Vishal is thirteenth from the left. What is the new position of Kamal from the right?
    1. 16th   2. 17th
    3. 18th   4. 19th

9. In an examination some questions carry 2 marks each and some others 4 marks each. A student scored 40 marks by attempting 15 questions correct in all. How many questions carrying 2 marks did he attempt correctly?
    1. 15   2. 12
    3. 8   4. 10

Direction: (Q.10 to Q.12): are based on following information.

P, Q, R, S, T and V are relatives. 'Q' is the son of 'R' but 'R' is not the mother of 'Q'. 'P' and 'R' is a married couple. 'T' is the brother of 'R'. 'S' is the daughter of 'P', and 'V' is the Aunt of 'Q'.

10. Who is the mother of 'Q'?
    1. P
    3. S
    2. R
    4. T

11. How is 'T' related to 'Q'?
    1. Father
    3. Son
    2. Brother
    4. Uncle

12. Who is the wife of 'T'?
    1. R
    3. S
    2. V
    4. P

13. From the given alternative words, select the word which cannot be formed using the letter of the given word:
    COMMISSIONER
    1. COMMON
    3. MISSILE
    2. MISSION
    3. SIREN

14. Select the correct combination of numbers so that letters arranged accordingly will form a meaningful word.
    N S G R E I
    5 4 3 2 1 0
    1. 0 2 5 3 1 4
    3. 5 0 4 2 3 1
    2. 3 1 5 4 0 2
    4. 4 0 5 3 1 2

15. In a certain code language, DIAMOND is written as EMPLBHE. How will ROUTINE be written in that code language?
    1. FMJSVNS
    3. FMJVSSN
    2. FOJUVPS
    4. SNVSJMF

16. In certain code language GUIDE is written as △⬤◪✳▰ and MARCH is written as @ + $ ▽%. How will DIAGRAM be written in same code language?

    1. ✳▰+▽$+@
    2. ✳◪+$+△@
    3. ✳◪+△$+@
    4. ✳▰+$+@▽

17. If MY = 16, SUN = 27 then HOTEL will be equal to:
    1. 60
    3. 77
    2. 75
    4. 80

18. If 'water' is called 'air', 'air' is called 'tree', 'tree' is called 'sky', 'sky' is called 'sea' and 'sea' is called 'fire', where do aeroplanes fly?
    1. water
    3. fire
    2. sky
    4. sea

19. How many '8's, are there followed by an even number and preceded by an odd number in the given number sequence?
    5 8 4 7 8 3 2 8 5 4 8 2 9 8 6 8 5 4 8 7 8 4 2 8 6 4 5 8 4 9
    1. 2
    3. 4
    2. 3
    4. 5

Courtesy : NTSE

20. J, K and L are educated; J, L and M are hard-working; L, M and N are employed; J, K, M and N are polite. Who is educated, hard-working, polite but not employed?
    1. J   2. K
    3. L   4. N

21. If 'S' denote '+', 'D' denotes '−', 'Q' denotes '÷' and 'P' denotes '×', then value of following equation is:
    35 Q 7 P 5 S 5 D 6 = ?
    1. 22   2. 24
    3. 26   4. 28

Direction: (Q.22 to Q.23): Select the missing number from the given responses.

22.
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22  30    40  67   200  416
  \  /      \  /      \  /
   2         3         ?
```
    1. 6   2. 4
    3. 5   4. 7

23. 14 25 42
    2   4   6
    3   3   ?
    4   7   9
    1. 7   2. 6
    3. 4   4. 3

Direction: (Q.24 to Q.25): Some equations are solved on the basic of a certain system. On the same basis, find out the correct answer, from amongst the four alternatives, for the unsolved equation.

24. If 9 * 7 = 32, 11 * 5 = 96, then 17 * 9 = ?
    1. 160   2. 175
    3. 208   4. 280

25. 85 × 14 = 44, 68 × 28 = 64, 79 × 45 = ?
    1. 72   2. 83
    3. 96   4. 124

Direction: (Q.26 to Q.27): are based on the following data.

Vaibhav walks 2 km to east, turns right and walks 1 km and then turns left and walks 4 km and again turning to his left travels 9 km.

26. In which direction is Vaibhav now from his starting point?
    1. North   2. North-East
    3. West   4. South-West

27. What is the shortest distance between Vaibhav's starting point and the present position?
    1. 6 km   2. 8 km
    3. 10 km   4. 12 km

Direction: (Q.28 to Q.29): Take the given statements as true even if they seem to be at variance from commonly known facts and decide which of the conclusions logically follows from the statements:

28.   Statements:
        All flowers are fruits.
        Some fruits are vegetables.
        No vegetable is tree.
        Conclusions:
        I. Some fruits are flowers.
        II. Some trees are vegetables.
        III. Some fruits are trees.
        1. Only conclusion I follow   2. Only conclusion II follow
        3. Only conclusion I and II follows 4. Only conclusion II and III follows

29.   Statement:
        Adversity makes a man wise.
        Conclusions:
        I. The poor are wise.
        II. Man learns from bitter experience
        1. If only conclusion I follow   2. If only conclusion II follow
        3. If both I and II follows   4. If neither I nor II follows

30.   "Some of the Football players are Badminton players, some Badminton players are Tennis players no Football player is a 'Tennis player'.
        Which of the following venn diagrams correctly represents the above statement?
        1.   2.
        3.   4.
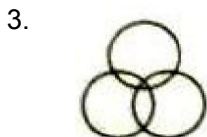
31.   There are two dots placed in the question figure. Find out the answer figure which has the possibility of placing the dots satisfying the same conditions as in the question figure?
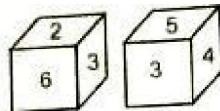

.

        1.   2.

        3.   4.
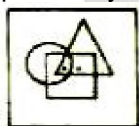
32. Select a suitable figure from the four alternatives that would complete the given matrix.

1.

2.

3.

4.
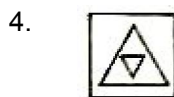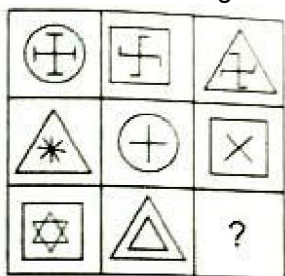
33. If a mirror is placed on the line X Y, then which of the answer figures is the correct image of the given question figure?

1.

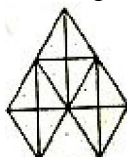2.

3.

4.
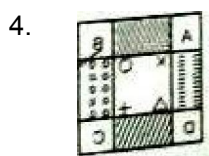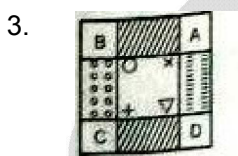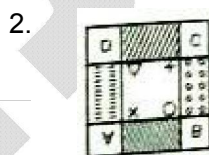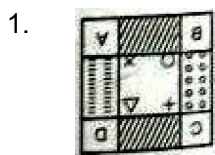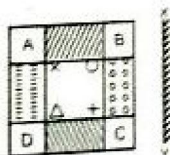
34. Two positions of a dice are shown below. When number 1 is on the top, what number will be at the bottom?

1. 2   2. 3
3. 5   4. 6

35. How many triangles are there in the following figure?

1. 20   2. 25
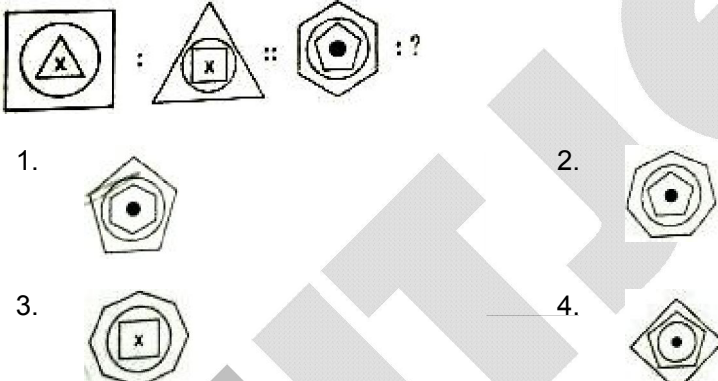3. 32   4. 34

Direction: (Q.36 to Q.40): In the following questions, there is a relationship between the letters / numbers / figures on the left of the sign (: :). The same relationship exists to the right of the sign (: :), of which one is missing. Find the missing term from the given alternatives.

36.　C E H L : P L I G : : L N Q U : ?
　　1. P Y U R　　　　　　　　　　2. Y U P R
　　3. Y U R P　　　　　　　　　　4. Y P U R

37.　F E A L : L E A F : : E A K T : ?
　　1. K A T E　　　　　　　　　　2. T A K E
　　3. K E T A　　　　　　　　　　4. E T A K

38.　63 : 9 : : ? : 14
　　1. 43　　　　　　　　　　　　2. 54
　　3. 86　　　　　　　　　　　　4. 96

39.　5 : 64 : : 11 : ?
　　1. 121　　　　　　　　　　　　2. 124
　　3. 144　　　　　　　　　　　　4. 196

40.

1.

2.

3.

4.

Direction: (Q.41 to Q.45): In the following questions, some letter clusters/numbers/figures are given in a sequence. Find the missing term to replace the question mark from the given alternatives.
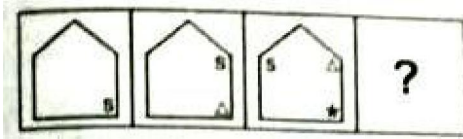
41.　R E O C, P G M E, N I K G, ?
　　1. M J J I　　　　　　　　　　2. L K I I
　　3. L K J H　　　　　　　　　　4. K L I G

42.　B Y C X, D W E V, F U G T, ?
　　1. J S H R　　　　　　　　　　2. H R J S
　　3. H S R J　　　　　　　　　　4. H S I R

43.　6, 11, 26, 71, 206, ?
　　1. 244　　　　　　　　　　　　2. 496
　　3. 611　　　　　　　　　　　　4. 632

44.　81, 192, 375, ?, 1029
　　1. 686　　　　　　　　　　　　2. 648
　　3. 484　　　　　　　　　　　　4. 468

45.

1.

2.

3.

4.

46.   Arrange the following words in a logical order.
       1. Leaf 2. Fruit 3. Stem 4. Root 5. Flower
       1. 4,1,3,5,2   2. 4,3,1,2,5
       3. 4,3,1,5,2   4. 4,5,1,3,2

47.   Which one number is wrong in the number series?
       13, 17, 19, 23, 27, 29
       1. 29   2. 27
       3. 23   4 19

Direction: (Q.48 to Q.50): are based on following information.

A group of friends is sitting in a square facing the centre. They are sitting one each at the corners and one each at the midpoints of the sides of the square. Madhvi is sitting diagonally opposite to Uma who is to Girija's right. Rajesh is next to Girija and opposite to Gyan who is on Vinod's left. Satish is not on Madhvi's right but opposite to Priya.

48.   Who is opposite to Vinod?
       1. Girija   2. Madhvi
       3. Priya   4. Satish

49.   Who is between Gyan and Madhvi?
       1. Rajesh   2. Satish
       3. Vinod   4 Priya

50.   If Gyan and Rajesh interchange their places, who will be to the left of Gyan?
       1. Satish   2. Priya
       3. Vinod   4. Girija