THE RADIANT ACADEMY

Igniting Young Minds

Udaipur's Biggest Mental Ability Test

"MAT -A- THON" 2022

CLASS –VII

Time: 90 Min.   **Date: 21-08-2022**   **Max. Marks: 60**

GENERAL INSTRUCTIONS

TEST PATTERN					
Time	**Total No. of Questions**	**Subject/Question Segregation**	**Type**	**Total Marks : 60**	
				Correct	**Negative**
90 Minutes	**1 - 60**	**Mental Ability (1-60)**	**Objective Question**	**1 Mark**	**0.25 Mark**

1. A student has to write his/her answers in the OMR sheet by darkening the appropriate bubble with the help Of Ball pen only as the correct answer(s) of the question attempted.

2. Blank papers, clip boards, log tables, slide rule, calculators, mobile or any other electronic gadgets in any form is not allowed.

3. Write your **Name** & **Roll No.** in the space provided in the bottom of this booklet.

4. Before answering the paper, fill up the required details in the blank space provided in the OMR sheet.

5. **In case of any dispute, the answer sheet available with the institute shall be final.**

6. **In case of tie, younger student will get top rank.**

NAME OF THE CANDIDATE : ………………………………………………………….ROLL NO. : …………………….…..
I have read all the instructions   I have verified the identity, name and roll number
  and shall abide by them   of the candidate.

……………………………………..   …………………………………….
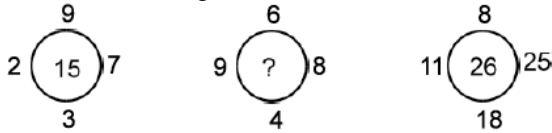
MENTAL ABILITY

Straight Objective Type

This section contains 60 questions. Each question has 4 choices (A), (B), (C) and (D) for its answer, out of which **ONLY ONE** is correct.

Directions : (1) Which sequence of letters when placed at the blanks one after the other will complete the given letter series ?

1. bca_ca_ _ab_ a
    (A) bbcc   (B) bcbc   (C) ccbb   (D) cbcb

2. Find the missing number

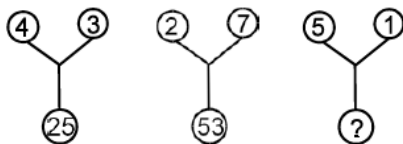   (A) 72   (B) 18   (C) 9   (D) 19

3. If any two letters in the word **PRISON** have as many letters between them in the word as there are in the English alphabet, they form an alpha-pair. How many such alpha-pairs are there in the word **PRISON** ?
    (A) 4   (B) 1   (C) 2   (D) 3

4. If it is possible to make a meaningful word with the first, the fourth, the seventh and the eleventh letters of the word **INTERPRETATION**, which of the following will be the third letter of that word ? If more than one such word can be made, give **M** as the answer and if no such word can be formed, give **X** as the answer.
    (A) T   (B) E   (C) X   (D) M

5. Anil and Sunil are ranked seventh and eleventh respectively from the top in a class of **31** students. What will be their respective ranks from the bottom in the class ?
    (A) 20th and 24th   (B) 24th and 20th   (C) 25th and 21st   (D) 26th and 22nd

6. Find the missing number

    (A) 26   (B) 25   (C) 27   (D) 30

7. In the alphabet series which letter is midway between 22nd letter from the left and 21st letter from the right ?
    (A) L   (B) M   (C) O   (D) None of these

8. Daniel is facing North. He turns 45 degrees in the clockwise direction and then turns 90 degrees in the anticlockwise direction. Finally, he turns back. Which direction is he facing now ?
    (A) South-East   (B) South-West   (C) North-East   (D) North-West

9. Find the missing number

    (A) 20   (B) 21   (C) 22   (D) 23

10. In the following series of numbers, find out how many times, **1**, **3** and **7** have appeared together, **7** being in the middle and **1** and **3** on either side of **7**?
2 9 7 3 1 7 3 7 7 1 3 3 1 7 3 8 5 7 1 3 7 7 1 7 3 9 0 6
    (A) One   (B) Two   (C) Three   (D) Four

11. If in any code language **CLERK** is coded as **AHYJA** how is **JOB** coded in that language?
(A) HKW   (B) HKV   (C) HKU   (D) None

12. If x stands for 'addition ', < stands for 'substraction', + stands for 'division', > stands for 'multiplication', – stands for 'equal to', , stands for 'greater than' and = stands for 'less than', state which of the following is true ?
(A) $3 \times 2 < 4 \div 16 > 2 + 4$ (B) $5 > 2 + 2 = 10 < 4 \times 2$
(C) $3 \times 4 > 2 – 9 + 3 < 3$ (D) $5 \times 3 < 7 \div 8 + 4 \times 1$

13. In a code language **157** means **mother always lovable** , **619** means **always happy future** and **952** means **mother very happy** then what does the word **future** stand for in the same language?
(A) 9   (B) 6   (C) 1   (D) Can not be determined

14. Find the missing number 14, 15, 12, 16, 9, 18, 4, 21, ?
(A) 2   (B) 3   (C) – 3   (D) – 5

15. Find the wrong term 2, 5, 11, 20, 30, 47, 65
(A) 5   (B) 20   (C) 30   (D) 47

16. Find the missing letter A, Y, D, W, G, U, J, ?
(A) R   (B) T   (C) S   (D) P

17. Correct the following equations by interchanging two signs.
$16 – 21 \div 7 \times 6 + 3 = 31$
(A) – and ÷   (B) + and ×   (C) ÷ and +   (D) ÷ and ×

Directions : (18) Which sequence of letters when placed at the blanks one after the other will complete the given letter series ?
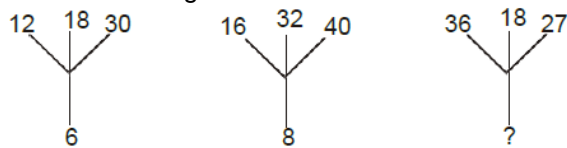
18. bc _ b _ c _ b _ ccb
(A) cbcb   (B) bbcb   (C) cbbc   (D) bcbc

19. Find the wrong term ECA, JHF, OMK, TQP, YWU
(A) ECA   (B) JHF   (C) TQP   (D) YWU

20. Find the missing term

3C	27D	9E
7I	21K	3M
4D	?	7J

(A) 11E   (B) 28G   (C) 35I   (D) 48F

21. Find the missing term

12 18 30 → 6 ; 16 32 40 → 8 ; 36 18 27 → ?

(A) 18   (B) 12   (C) 9   (D) 6

22. $(48 – 12) \div 4 + 6 \div 2 \times 3 = ?$
(A) 18   (B) 4   (C) 2   (D) –1

23. A man starts from his house walks 2 km. towards North. He turns right and walk 3km. Then he turn left and travels 3 km. What is the direction he is facing ?
(A) East   (B) West   (C) North   (D) South

24. If × means ÷, – means ×, ÷ means + and + means –, then **(3 – 15 ÷ 19) × 8 + 6** = ?
(A) 8   (B) 4   (C) 2   (D) –1

Directions : (25 to 26) In an imaginary language, the digits 0, 1, 2, 3, 4, 5, 6 ,7,8 and 9 are substituted by a, b, c, d, e, f, g, h, i, and j. And 10 is written as ba :

25. (cd + ef) × bc is equal to
   (A) 684 (B) 816 (C) 916 (D) 1564

26. dc × f − (bf − d) × d is equal to
   (A) bce (B) bcf (C) abe (D) abb

27. If $\square\triangle$ = 7, $\triangle$ = 27, $\boxed{\triangle}$ = 81 then $\boxed{\triangle}$ $\boxed{\hexagon}$ = ?
   (A) 690 (B) 689 (C) 780 (D) 789

28. The time on the watch is quarter to three. If the minute-hand points to North-East, in which direction does the hour hand point ?
   (A) South-West (B) South-East (C) North-West (D) North-East

29. If the following scrambled letters are rearranged to form the name of a city then which letter will appear in the middle
   WILGARO
   (A) R (B) G (C) L (D) A

30. Two person are facing one-another if the face of the first person is towards the west. In which direction will be the right hand of the second person.
   (A) South (B) East (C) North (D) West

Directions : (31) A group of letters is given which are numbered 1, 2, 3, 4, 5 and 6. Below are given four alternatives containing combinations of these numbers. Select that combination of numbers so that letters arranged accordingly, form a meaningful word.

31. **R T A O U H**
    1 2 3 4 5 6
   (A) 1, 3, 4, 5, 6, 2 (B) 2, 3, 6, 4, 5, 1 (C) 6, 3, 2, 4, 5, 1 (D) 3, 5, 2, 6, 4, 1

32. If the first half of the alphabet series is written in the reverse order, which of the following will be the 19th letter from your right?
   (A) H (B) F (C) D (D) E

33. How many A are in the given letter series which does not has B just before it but has C just after it ?
   DACBACDACBCACBACBADC
   (A) 3 (B) 4 (C) 5 (D) 6

34. If the animals which can walk are called **swimmers**, animals which can crawl are called **flying**, those which live in water are called **snakes**, and those which fly in the sky are called **hunters**, then what will a **lizard** be called ?
   (A) Swimmer (B) Snake (C) Hunter (D) Flying

35. If **D** = 4 and **COVER** = 63, then **BASIS** = ?
   (A) 49 (B) 50 (C) 54 (D) 55

36. Find the missing number.   2, 8, 18, 32, ?
   (A) 62 (B) 60 (C) 50 (D) 46

37. Find the wrong term   2, 6, 10, 20, 30, 42, 56
   (A) 6 (B) 10 (C) 20 (D) 30

38. Find the missing letter   Q, N, K, ?, E
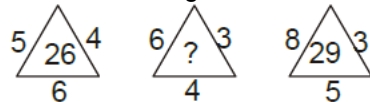   (A) H (B) I (C) J (D) G

Directions : (39 to 41) Which sequence of letters when placed at the blanks one after the other will complete the given letter series ?

39. _ ac _ ca _ aca _ a _ a _
(A) cacaca   (B) aaaccc   (C) acacac   (D) cacccc

40. a a b _ a a a _ b b a _
(A) b a a   (B) a b b   (C) b a b   (D) a a b
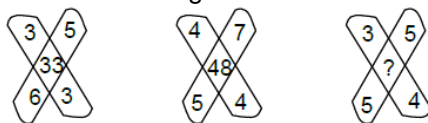
41. m _ l _ ml _ m _ llm
(A) lmmm   (B) lmlm   (C) lmml   (D) mllm

42. Find the missing number

(A) 32   (B) 22   (C) 18   (D) 27

43. Find the missing number

(A) 47   (B) 45   (C) 37   (D) 35

44. If South-East becomes North; and North-East becomes West; then West becomes
(A) North – East   (B) South – East   (C) North – West   (D) South – West

45. Find the missing number   2, 3, 5, 7, 11, ?, 17
(A) 14   (B) 13   (C) 10   (D) 12

46. 'A' travelled Westwards 5 km, turned left and travelled 3 km, turned right and travelled 9 km. He then travelled North 3 km. How far was 'A' from the starting point now ?
(A) 3 km   (B) 5 km   (C) 10 km   (D) 14 km

47. Choose the one word which can be formed from the letters of the given word. **RATIONALISATION**
(A) NATIONALISTIC   (B) NATIONALIST   (C) SITUATION   (D) REALISATION

48. Manisha ranked sixteenth from the top and twenty ninth from the bottom among those who passed an examination. Six students did not participate in the competition and five failed in it. How many students were there in the class ?
(A) 40   (B) 44   (C) 50   (D) 55

49. If **knr lin hcn** stands for **everything is fine**
nso ons lin stands for **there is something** and
ksa nso wno stands for **ask something now** , What would *there* stand for ?
(A) lin   (B) nso   (C) ons   (D) kse

50. How many pairs of successive numbers have a difference of 2 in the following sequence?
6, 4, 1, 2, 2, 8, 7, 4, 2, 7, 5, 3, 8, 6, 2, 1, 7, 0, 4, 1, 3, 2, 8, 6
(A) 4   (B) 5   (C) 6   (D) 7

51. Abu walked 20 metre towards South. Then he turned to his left and walked 25 metre. He then turned to his left and walked 20 metre. He again turned to his right and walked 10 metre. At what distance is he from the starting point and in which direction ?
(A) 35 metre, East   (B) 35 metre, North   (C) 40 metre, East   (D) 60 metre, East

52. In a coded language TAKE = 1790, PLOT = 5321 then code for PLATE will be –
(A) 53701   (B) 53071   (C) 35710   (D) 53710

53. Arrange the words in the alphabetical order and tick the one that comes second.
(A) Explosion   (B) Emergency   (C) Ecstasy   (D) Eager

54. Find the missing term   17Z5, 15X4, 13V3, ?, 9R1

(A) 11S2   (B) 11T2   (C) 11U2   (D) 11T3

55. In a coded language SHIFT is written as UFKDV, Then COVET may be written in coded language as-

(A) EMXCV   (B) FNYDU   (C) EXCUV   (D) EQUDS

56. Find the missing number 16, 33, 67, 135, ?

(A) 371   (B) 175   (C) 271   (D) 287

57. Find the missing term   AD, EI, JO, PV, ?

(A) VD   (B) WC   (C) WD   (D) VE

58. Find the wrong term   EPV, FQW, GRX, HTY, ITZ

(A) FQW   (B) GRX   (C) HTY   (D) ITZ

59. Find the wrong term   ZLA, BMY, CNW, FOU, HPS

(A) ZLA   (B) BMY   (C) FOU   (D) CNW

60. Ram travels 7 km Eastwards, then he turns right and travels 3 km and further turns right again and travels 11 km. How far is he from the starting point?

(A) 5   (B) 14   (C) 21   (D) 23