Dear Parents/Students,   **Dated: 21/08/2022**

- ✓ Thank you for participating in the **MAT – A – THON Exam.**
- ✓ All attempts have been made in making sure that you experience an **error-free** exam. However, in case if you find any discrepancy in any question/option, feel free to inform us through message on our Whatsapp No. **7976711979**. Our Expert panel will surely review your suggestions.

NOTE:- Window for correction is open till 24th-Aug, 2022 (6 PM)
Regards,
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MAT – A – THON

CLASS : VII
DATE – 21.08.2022

ANSWER KEY

Ques.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	A	D	A	D	B	A	D	A	A	C	B	B	B	C	C
Ques.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Ans.	C	B	A	C	B	C	A	C	C	B	A	B	A	C	A
Ques.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Ans.	D	B	A	D	B	C	B	A	D	A	B	B	D	B	B
Ques.	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Ans.	D	B	D	C	D	A	D	C	B	A	C	C	C	D	A

SOLUTION

1   Series is bca / bca / bca / bca

2.   In the first figure, $2 + 9 + 7 – 3 = 15$
In the third figure, $11 + 8 + 25 – 18 = 26$
In the second figure, $9 + 6 + 8 – 4 = 19$

3.

Letter in the given word	Letter in the alphabet series
(i) O N	N O
(ii) P R I S	P Q R S
(iii) R I S O	R Q P O
(iv) R I S O N	R Q P O N

4.   The first, the fourth, the seventh and the eleventh letters of the word **INTERPRETATION** are **I**,

E, **R** and **T** respectively. The words formed are **RITE**, **TIRE and TIER**.

5.   Number of students behind Anil in rank = $(31– 7) = 24$. So, Anil is 25th from the bottom. Number of students behind Sunil in rank
$= (31 – 11) = 20$ So, Sunil is 21st from the bottom.

6.   In the first figure, $4^2 + 3^2 = 25$
In the second figure, $2^2 + 7^2 = 53$
In the third figure, $5^2 + 1^2 = 26$

7. In alphabet series 22nd letter from left is V and 21st letter from the right is F
The sequence is –
F G H I J K L M N O P Q R S T U V
In the given sequence N is mid letter.

8. Daniel is facing North.
As he turns 45∘ in clockwise direction, this implies Ashok is facing North-East
Then he takes a 90∘ anti-clockwise turn, this means he is facing North-West.
Now, at last he turns back.
So, he faces opposite direction.
As opposite to North is South and opposite to West is East. So, finally he is facing South-East direction.
Hence, option A is correct.

9. In the given figure, column wise sum is 50

10. As given in the problem we have to find the
2 9 7 3 <u>1 7 3</u> 7 7 1 3 3 <u>1 7 3</u> 8 5 7 1 3 7 7 <u>1 7 3</u> 9 0 6
Hence, 3 such pairs are there

11.

12. Using the proper notations in (B), we get the statement as $5 \times 2 \div 2 < 10 - 4 + 2$ or $5 < 8$, which is true

13. 157 means mother always lovable ......(i)
619 means always happy future ....(ii)
952 means mother very happy ....(iii)
from (i) & (ii) **always** means **1**
from (i) & (iii) **happy** means **9**
So, **future** means **6**

14. The sequence is a combination of two series.
I. 14, 12, 9, 4, (....) and
II. 15. 16, 18, 21
The pattern followed in I is $-2, -3, -5$, ...
∴ missing number $= 4 - 7 = -3$

15. The difference between the consecutive number is in the multiples of 3 i.e.
2,2+3=5,5+6=11,11+9=20,20+12=32,32+15=47,47+18=65
Therefore, the wrong term is 30 and should be replaced by 32

16. The given sequence consists of two series :
I. A, D, G, J in which each letter is moved three steps forward to obtain the next term
II. Y, W, U, ? in which each letter is moved two steps backward to obtain the next term. So, the missing term would be S.

17. By changing sign in option B the get the statement as
$16 - 21 \div 7 + 6 \times 3 = 31$
$16 - 3 + 6 \times 3 = 31$
$16 - 3 + 18 = 31$
$31 = 31$

18. Series is bccb / bccb / bccb. So, pattern bccb is repeated

19. In the following series:
First letter, Second letter and third letter will move five steps forward to form next term. Hence TQP is wrong answer as according to pattern of the form 173 or 371 series TRP is correct option.

20. The letters in the first row form a series C, D, E (a series consecutive letters). The letters in the second row form a series I, K, M (a series of alternate letters). Similarly, the letters in the third row will form the series D, G, J (a series in which each letter is three steps ahead of the previous one). So, the missing letter is G. Also, the number in the second column is equal to the product of the numbers in the first and third columns. So, missing number is (4×7) i.e. 28. Thus, the answer is 28G.
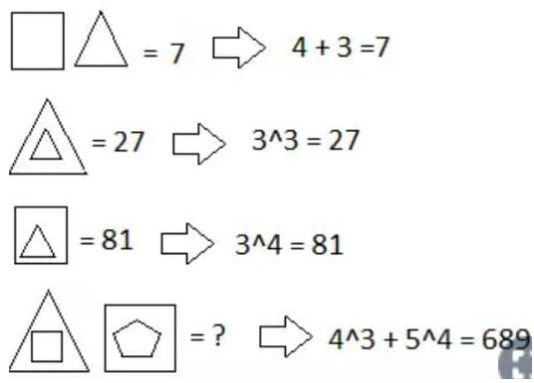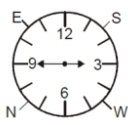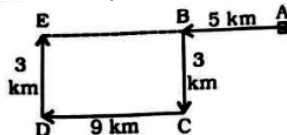
21. In the first figure HCF of 12,18, 30 is 6
In the second figure HCF of 16, 32, 40 is 8
In the third figure HCF of 36,18, 27 is 9

22. $(48 - 12) \div 4 + 6 \div 2 \times 3$
$= 36 \div 4 + 6 \div 2 \times 3$ (Solving Bracket)
$= 9 + 3 \times 3$ (Solving Division)
$= 9 + 9$ (Solving Multiplication)
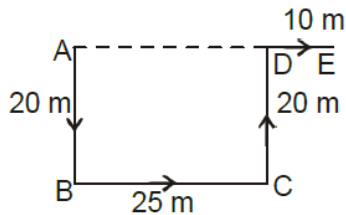$= 18$ (Solving Addition)

23.

It is clear from the diagram that is facing in north direction

24. Using the proper signs
Expression $(3 \times 15 + 19) \div 8 - 6 = 64 \div 8 - 6 = 2$

25. The letters are replace by given numbers So,
$(cd + ef) \times bc = (23 + 45) \times 12 = 68 \times 12 = 816$

26. The letters are replace by given numbers So
$dc \times f - (bf - d) \times d$
$= 32 \times 5 - (15 - 3) \times 3, = 160 - 36 = 124 = bce$

27.

$\square \triangle = 7 \Rightarrow 4 + 3 = 7$

$\triangle = 27 \Rightarrow 3\wedge3 = 27$

$\triangle = 81 \Rightarrow 3\wedge4 = 81$

$\triangle \pentagon = ? \Rightarrow 4\wedge3 + 5\wedge4 = 689$

28. The required position of clock as shown in figure. Clearly, if minute hand points towards North- East then hour hand will point towards South-West

29. The city is **GWALIOR** and it's middle letter is L

30. Two person are facing one-another if first person face in west direction so second person face will be in east direction. Hence the right hand of second person in south direction

31. The given letter when arranged in the order 3, 5, 2, 6, 4, 1form the word AUTHOR

32. Correct option is B)
If we write first half of alphabets in reverse order.we get:
M L K J I H G F E D C B A N O P Q R S T U V W X Y Z IF we count we get 19th letter from right will be **F.**

33. As per the question :
DACBACDACBCACBACBADC
Hence, 3 such pairs are there

34. A lizard is an animal which crawls and hence is called flying.

35. Given, D=4 and COVER=63.
Clearly, on putting A=1,B=2,C=3 and so on, we have
COVER = C +O + V + E + R = 3+ 15 + 22+5 + 18 =63
Similarly, BASIS is coded as:
BASIS=B+A+S+I+S=2+1+19+9+19=50

36. The sequence in the series is double the square of numbers in their natural order.
$1^2 \times 2 = 2$, $2^2 \times 2 = 8$, $3^2 \times 2 = 18$, $4^2 \times 2 = 32$, $5^2 \times 2 = 50$

37. Given series is: 2, 6, 10, 20, 30, 42, 56.
Here, the difference between consecutive terms is as: +4, +6, +8, +10, +12, +14.
Clearly, 6 + 6 = 12.

38. In the given series, every letter is moved three steps backward to obtain the corresponding letters of the next term. So, the missing term is H.

39. Series is ca / ca / ca / ca

40. Series is aab / baa / aab / baa.

41. Series is mllm / mllm / mllm

42. In first figure, $5 \times 4 + 6 = 26$
In second figure, $8 \times 3 + 5 = 29$
missing number in third figure,
$6 \times 3 + 4 = 22$

43. In first figure, $6 \times 3 + 3 \times 5 = 33$
In second figure, $5 \times 4 + 4 \times 7 = 48$
∴ In third figure, $5 \times 4 + 3 \times 5 = 35$

44. South-East becomes North → Changes by 135° ACW West becomes → South east

45. The series is made up of consecutive prime numbers. Therefore, the missing term is 13.

46. The correct option is **D** 14 km

Required distance =(9+5) km =14 km

47. The word **RATIONALISATION** contains all the letters of the word **NATIONALIST**. So, the word **NATIONALIST** can be formed.

48. Number of students who passed
= (15 + 1 + 28) = 44.
∴ Total number of students in the class
= 44 + 6 + 5 = 55

49. **lin** is common in first two sentences, it stands for **is. nso** is common in last two sentences, it stands for **something**. Clearly, in second statement **there** stands for **ons**.

50. As per the question : 6, 4, 1, 2, 2, 8, 7, 4, 2, 7, 5, 3, 8, 6, 2, 1, 7, 0, 4, 1, 3, 2, 8, 6
Hence, 7 such pairs are there

51. The movements of Raj are as shown in figure ∴ Raj's distance from the starting point A = AE = (AD + DE) = (BC + DE) = (25 + 10) m = 35 m. So, E is to the East of A.

52. Here, the alphabet and number directly correspond to each other. So, PLATE is coded as 53710.

53. The given was can be arranged in alphabetical order as Eager, Ecstasy, Emergency, Explosion

54. The first number & second letter of every term is moved two steps backward & the third number of every term is moved one step backward. So, the missing term would be 11T2.

55. 1st, 3rd and 5th letter is shifted by two alphabets in the forward sequence. 2nd and 4th letter is shifted by two in backward sequence of alphabets. Therefore, COVET can be written as EMXCV

56. The next number in the series is multiplied by 2 and added by 1.
16×2=32+1=33, 33×2=66+1=67,
67×2=134+1=135
Hence next number will
be 135×2=270+1=271

57. The first letter of subsequent groups have a difference of 4, 5 and 6 places respectively, whereas the second letter of the subsequent groups has a difference of 5, 6, and 7 places respectively, Therefore, on following the same pattern the correct answer is WD

58. In every term, first second and third letter is in alphabetical order to its next term respectively. Fourth term is not following the same rule. Hence, HTY is the wrong term and should be replaced by HSY.

59. In the following series first letter is moved 2 steps forward, second letter will be moved 1 step forward and third letter will be moved 2 steps backward in alphabet series to form the next term Hence following series third term will be DNW.

60. The movement of Mohan from A to D as shown in figure. Now,
DE = (CD – CE) = (CD – AB) = (11 – 7) = 4 km Required distance = AD = 5 km