MENTAL ABILITY TEST NMMSSE 2021-22

Std. VIII

1) What should come next in the following sequence of letters?

B B C B C D B C D E B C D E F B C D E F G B C D E F ?

(1) B (2) D (3) G (4) H

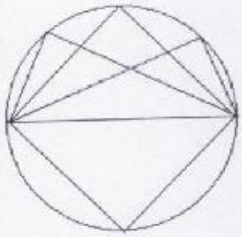
2) In a certain code language, BEAT is written as YVZG, then what will be the code of MILD?

(1) NROW (2) NOWR (3) ONWR (4) ONRW

3) If GOLD is coded as HOME, COME is coded as DONE and CORD is coded as DOSE, how would you code SONS?

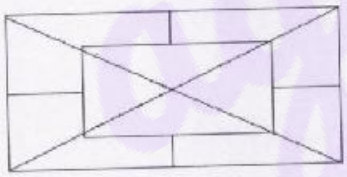
(1) TPOT (2) TOOT (3) TOOS (4) TONT

4) Count the number of triangles formed in the given figure.



(1) 8 (2) 10 (3) 11 (4) 12

5) How many rectangles are there in the given figure?



(1) 14 (2) 10 (3) 2 (4)6

6) If in a certain code, '256' means 'red coloured chalk', '589' means 'green coloured flower' and '254' means 'white coloured chalk'. The digit in the code that indicates 'white' is

(1) 2 (2) 4 (3) 5 (4) 8

Directions: Q.No.7 – 8: In a certain code language, 123 means 'bright little boy', 145 means 'tall big boy' and 637 means 'beautiful little flower'.

7) Which digit in that language means 'bright'?

(1) 1 (2) 2 (3) 3 (4) 4

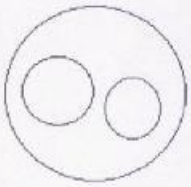
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8) Which digit in that language means 'little'?

(1) 1 (2) 2 (3) 3 (4) 4

9) Which of the following options will perfectly fit to the given Venn diagram?



(1) Earth, Mountain, Plateaus (2) School, Rooms, Books

(3) Students, Boys, Players (4) Flowers, White. Clothes

10) In the given question choose the correct water image of Fig.(X) from amongst the four alternatives given along with it :



(X) (1) (2) (3) (4)

11) Pointing to a photograph, a man said, "I have no brother or sister but that man's father is my father's son". Whose photograph was it?

(1) His own (2) His son's (3) His father's (4) His nephew

12) If (a) $8 \times 4 \times 7 = 25$, (b) $7 \times 8 \times 9 = 47$

and (c) $6 \times 5 \times 4 = 26$ then $2 \times 3 \times 6 = ?$

(1) 0 (2) 9 (3) 12 (4) 18

Directions: Q.No.13 – 14: In a certain code language the signs +, –, ×, ÷ are used in place of ÷, ×, –, + respectively. Following questions are given in that code language. Find the value.

13) $9 \times 2 \div 6 + 3 = ?$

(1) 6 (2) 9 (3) 5 (4) 8

14) $12 \times 4 + 2 = ?$

(1) 4 (2) 72 (3) 10 (4) 50

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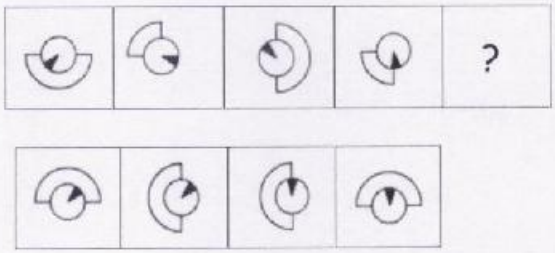
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15) A clock is so placed that at 12 noon its minute hand points towards north-east. In which direction will its hour hand point at 1.30 pm?

(1) East (2) South-East (3) South (4) North-West

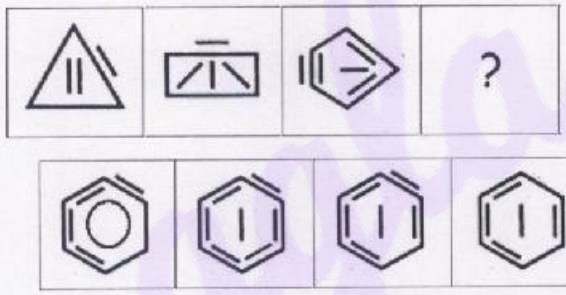
Directions: Q.No.16 – 17: In each question given below there is a Series of figures with some specific relations between them. Establish the same relationship and select the correct option that completes the given series .

16)



(1) (2) (3) (4)

17)



(1) (2) (3) (4)

Directions: Q.No.18 – 20: The following questions are based on the number series in which one number is missing. Study the pattern and select the missing number amongst the four alternatives given below each question that will complete the series?

18) 5, 6, 16, 57, ?, 1245

(1) 244 (2) 148 (3) 296 (4) 271

19) 2, 3, 11, 38, 102, ?

(1) 402 (2) 182 (3) 227 (4) 168

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20) 14, 17, 24, 35, ?

(1) 49 (2) 38 (3) 50 (4) 46

21) Refer to the pattern in the first two rows and find the correct number in place of question mark?

4	(121)	7
5	(169)	8
6	?	9

(1) 15 (2) 225 (3) 36 (4) 81

22) Ravi left home for the bus stop 15 min earlier than the usual time. It takes 10 min to reach the bus stop. He reached the bus stop at 8:40 am. What time does he usually leave home for the bus stop?

(1) 8:30 am (2) 8:55am (3) 8:45am (4) 8:50am

23) A man read $3/8^{th}$ of a book on the first day and $4/5^{th}$ of the remaining on the second day. If the number of pages still unread are 40, then how many pages did the book contain?

(1) 300 (2) 500 (3) 320 (4) 350

24) Find the odd one out in the given question.

(1) 1025 (2) 7225 (3) 5625 (4) 11025

25) If Teacher's Day was celebrated on Thursday, on what day will Gandhi Jayanti be celebrated in the same year?

(1) Tuesday (2) Thursday (3) Wednesday (4) Saturday

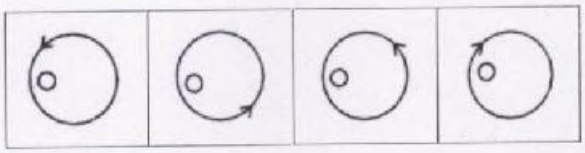
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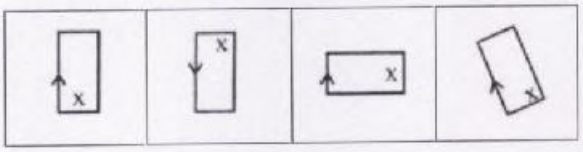
Directions: In Qn. 26 – 28, From the four figures given below, three are alike in a certain way and one is different. Find the odd figure.

26)



(1) (2) (3) (4)

27)



(1) (2) (3) (4)

28)



(1) (2) (3) (4)

29) What is the sum of prime numbers between 0 and 15?

(1) 27 (2) 41 (3) 29 (4) 39

30) In a joint family there are, father and mother, three married sons and one unmarried daughter. Of the sons, two have two daughters each and one has a son. How many female members are there in the family?

(1) 3 (2) 9 (3) 2 (4) 6

31) If only the first half of the English alphabet is reversed, how many letters will be there between K and R?

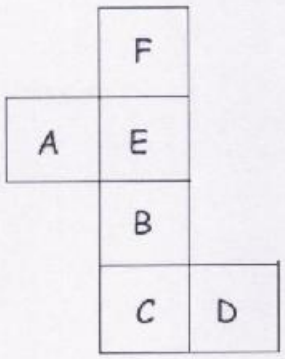
(1) 6 (2) 10 (3) 14 (4) 16

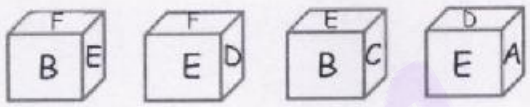
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32) While the group photo of a family was taken, the father was found to be sitting to the left of the son and right to the grandfather. Mother was sitting to the right of her daughter but left to the grandfather. Who is occupying the central place?

(1) Son (2) Grandfather (3) Father (4) Mother

33) Which of the following dice is identical to the unfolded figure given below?





(1) (2) (3) (4)

Direction: Q.No.34 – 35: Complete the series by filling letters from the alternative.

34) _ b b c a _ b c c a _ a c _ a _ c b

(1) abcba (2)acbab (3) bacab (4) bcaab

35) _ o p _ m o _ n _ _ p n m o p _

(1) mnpmon (2)mpnmop (3) mnompn (4) mnpomn

36) Five birds, a crow, a pigeon, a little pigeon, a big crow and an eagle fly one after other from a tree branch. Big crow flew after the crow but is ahead of the eagle. The pigeon is between the crow and the big crow. The little pigeon is before the crow. Which bird is in the last?

(1) Pigeon (2) Big crow (3) Eagle (4) None

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37) A man started walking towards the East. He, however, wanted to go towards South. Which of the following turning sequences will lead him towards South?

(1) left, left, right (2) left, left, left (3) right, right, right (4) left, right, left

38) If the first five words in the sentence, Meeta's mother meets me many times" are rearranged in the alphabetical order, which word will be in the middle?

(1) Meeta (2) mother (3)meets (4) many

Directions: Q.No.39 - 41: The words in column A are expressed in a certain code language using letters in the corresponding column B. Find the correct code for each letter and answer the questions given below.

Column A (words)	Column B (codes)
SEAT	a c i q
BALL	o u a u
CUPS	d h k c
CAKE	h a p q

39) How is the word LATE coded?

(1) u q a h (2) u a i c (3) a i u q (4) u q i o

40) The code for the word TABLE is _____.

(1) u i a o q (2) q o c h a (3) i a u h c (4) a o q h u

41) UP is coded as _____.

(1) p k (2) d p (3) h d (4) d k

42) How many meaningful English words can be formed by using any two letters of the word 'NOT'?

(1) nil (2) one (3) two (4) three

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43) How many T's are there in the following sequence which are immediately preceded by P but not immediately followed by S?

S T P Q T S P T R P T S R P S T Q P T R P T M P T S

(1) none (2) one (3) two (4) three

44) If Z = 26, NET = 39, then NUT = ?

(1) 50 (2) 53 (3) 55 (4) 56

Directions: Q.No.45 - 46: In each of the following questions, find out which of the letter series follow the given rule.

45) Rule: Number of letters skipped in between adjacent letters in the series decreases by two.

(1) EPVAF (2)GPWBE (3) UCJOP (4) XFMQU

46) Rule: The group of letters should not contain more than two vowels.

(1) BDEJOLY (2)JKAPIXU (3) PRAQEOS (4) ZILERAM

Directions: Q.No.47 - 51, In each of the following questions, there are four sets of letters/numbers/words. Each set has one group which is different from others. Identify the odd one.

47) (1) RUX (2) CFI (3) BDG (4) FIL

48) (1) WB48 (2) CD12 (3) KE55 (4) RD72

49) (1) Venus (2) Earth (3) Mars (4) Moon

50) (1) Water (2) Jelly (3) 2Milk (4) Juice

51) (1) 62 (2) 121 (3) 36 (4) 256

52) Sixteen girls are standing in a straight line with a distance of 4 m between two adjoining girls. What is the distance between the third and the seventh girl?

(1) 20 m (2) 16 m (3) 12 m (4) 24 m

53) What are the minimum number of colours required to paint all the sides of a cube, so that no two adjacent sides have the same colour?

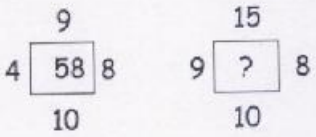
(1) 2 (2) 4 (3) 3 (4) 6

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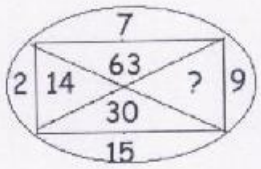
Direction: Q.No.54 – 56: Find the missing number in each of the following by referring to the given pattern.

54)



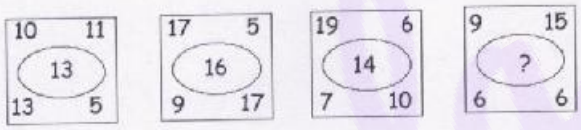
(1) 63 (2) 78 (3) 100 (4) 117

55)



(1) 33 (2) 145 (3) 135 (4) 18

56)



(1) 15 (2) 12 (3) 36 (4) 3

57) I am facing South. I turn right and walk 20 m. Then I turn right again and walk 10 m. Then I turn left and walk 10 m and then turning right walk 20 m. Then I turn right again and walk 60 m. In which direction am I from the starting point?

(1) North (2) North-west (3) East (4) North-east

58) Neeta is older than Jaya by 15 years. After 8 years, the sum of their ages will be 35 years, then what is Neeta's present age?

(1) 21 years (2) 25 years (3) 18 years (4) 17 years

59) Gopal reaches the entrance of a temple when he climbs up 100 steps, while doing so he offers flowers at every step which are equal to the serial number of that step. How many flowers he must be having with him before he started climbing?

(1) 4500 (2) 5000 (3) 5050 (4) 5500

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Directions: Q.No.60 - 69: In each of the following questions a set of numbers/ letters/ words are given which is analogous to each other in some way. The third term is given after the mark :: which bears a similar relationship to one of the terms given in the options. Find the correct answer that fits in place of (?):

60) 3 : 11 : : 7 : ?

(1) 22 (2) 29 (3) 18 (4) 51

61) 5 : 124 : : 7 : ?

(1) 125 (2) 248 (3) 342 (4) 343

62) 42 : 56 : : 110 : ?

(1) 18 (2) 132 (3) 136 (4) 140

63) 149 : 238 : : 159 : ?

(1) 169 (2) 248 (3) 261 (4) 269

64) AG : IO : : EK : ?

(1) LR (2) MS (3) PV (4) SY

65) KMF : LLH : : RMS : ?

(1) SLR (2) SLU (3) SSU (4) SUS

66) ASTN : ZTSO : : MSUB : ?

(1) LRRC (2) LTTA (3) NTVC (4) LTTC

67) botany : plants :: entomology : ?

(1) snakes (2) insects (3) birds (4) germs

68) pulp : paper : : hemp : ?

(1) basket (2) yarn (3) rope (4) cotton

69) hot : oven : : cold : ?

(1) ice cream (2) air conditioner (3) snow (4) refrigerator

70) In a row of trees, a tree is 7^{th} from left end and 14^{th} from the right end. How many trees are there in the row?

(1) 18 (2) 19 (3) 20 (4) 21

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Directions: Q.No.71 – 72: In each of the following questions, find out how many such pairs of letters are there in the given word each of which has as many letters between them in the word as in the English alphabet.

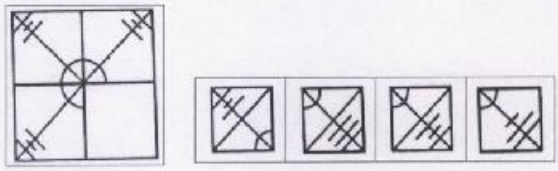
71) BRIGHTER

(1) one (2) two (3)three (4) nil

72) WONDERFUL

(1) nil (2) two (3) three (4) more than three

73) Given below is an incomplete figure X. Select the correct part from the alternative that will complete the figure.



(X) (1) (2) (3) (4)

74) Some of the components are given in figure X. Which figure in the alternatives shows all the components given in figure X?



(X) (1) (2) (3) (4)

75) Find the odd term in the question.

(1) $\frac{A}{Y}$ (2) $\frac{C}{W}$ (3) $\frac{F}{V}$ (4) $\frac{1}{Q}$

76) Rearrange the given letters to form a meaningful word which is almost similar in meaning to one of the word given in the alternatives.

P R S D I T U

(1) deny (2) refuse (3) break (4) join

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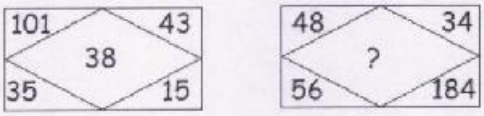
Direction: Q.No.77 – 78. Find the missing number in each of the following by referring to the given pattern

77)

6	9	15
8	12	20
4	6	?

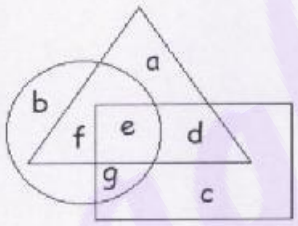
(1) 5 (2) 10 (3) 15 (4) 21

78)



(1)142 (2) 127 (3) 198 (4) 158

Directions: (Questions 79 to 80) : In the following figure, triangle represents qualified doctors, circle represents experienced doctors and the rectangle represents doctors working in villages. Letters are shown in the different sections of the figure. Answer the following:



79) Which letter represents qualified and experienced doctors working in villages?

(1) a (2) f (3) e (4) d

80) Which letter represents qualified but not experienced doctors working outside the villages?

(1) a (2) e (3) f (4) d

Directions: Q.No.81 – 82: In each of the following questions, arrange the given words in the sequence in which they occur in the dictionary and then choose the correct sequence.

81) 1. Brook 2. Bandit 3. Boisterous 4. Baffle 5. Bright

(1) 2, 4, 3, 1, 5 (2) 2, 4, 3, 5, 1 (3)4, 2, 3, 1, 5 (4) 4, 2, 3, 5, 1

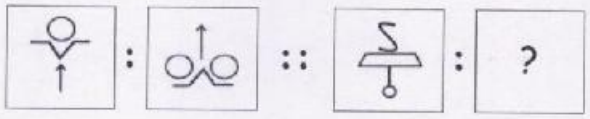
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82) 1. Eagle 2. Earth 3. Eager 4. Early 5. Each

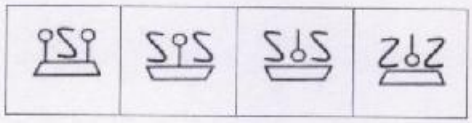
(1) 1, 5, 2, 4, 3 (2) 2, 1, 4, 3, 5 (3)2, 3, 5, 4, 1 (4) 5, 3, 1, 4, 2

Directions: In Qn. 83 – 84: In each of the following figures. There is some relationship between the figures A and B. The same relationship exists between the figure C and one of the four alternatives. Choose the correct alternative.

83)

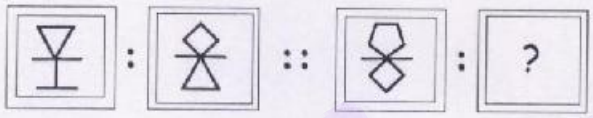


A B C D

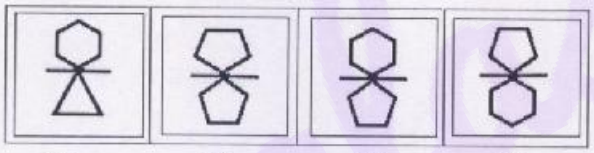


(1) (2) (3) (4)

84)



A B C D



(1) (2) (3) (4)

85) If 3 is subtracted from the middle digit of each of the following numbers and then the positions of the digits are reversed, which of the following will be the last digit of the middle number after they are arranged in descending order?

589, 362, 554, 371, 442

(1) 1 (2) 2 (3) 3 (4) 4

86) If the seventh day of a month is three days earlier than Friday, what day will it be on the nineteenth day of the month?

(1) Sunday (2) Monday (3) Wednesday (4) Friday

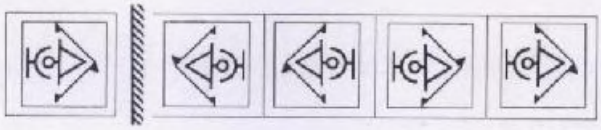
87) One evening Raja started to walk towards the Sun. After walking a while, he turned to his right and again to his right. After walking a while he again turned right. In which direction is he facing?

(1) North (2) West (3) South (4) East

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Directions : (Questions 88 and 89). In the given question choose the correct mirror image of Fig.(X)from amongst the four alternatives given along with it :

88)



(X) (1) (2) (3) (4)

89) In the given question, the figure given in one of the four alternative figures is embedded in the question figure (X). Find the correct answer.



(X) (1) (2) (3) (4)

90) Sarita is older than Rekha by 15 years. After 6 years, the sum of their ages will be 33 years. What is Sarita's present age?

(1) 18 years (2) 21 years (3) 24 years (4) 20 years



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NATIONAL MEANS CUM MERIT SCHOLARSHIP SEARCH EXAM (NMMSSE) 2021-22

MENTAL ABILITY TEST (MAT) Std.VIII

ANSWER KEY

D.O.E. 30/04/2022

Q	A	Q	A	Q	A	Q	A	Q	A
1	3	21	2	41	4	61	3	81	4
2	1	22	3	42	4	62	2	82	4
3	2	23	3	43	4	63	2	83	3
4	4	24	1	44	3	64	2	84	3
5	3	25	3	45	2	65	2	85	3
6	2	26	4	46	1	66	4	86	1
7	2	27	2	47	3	67	2	87	3
8	3	28	3	48	1	68	3	88	2
9	1	29	1	49	4	69	4	89	4
10	3	30	2	50	2	70	3	90	1
11	2	31	3	51	1	71	3		
12	1	32	2	52	2	72	4		
13	2	33	2	53	3	73	3		
14	3	34	2	54	2	74	2		
15	1	35	1	55	3	75	3		
16	1	36	3	56	2	76	3		
17	3	37	2	57	4	77	2		
18	1	38	1	58	4	78	1		
19	3	39	3	59	3	79	3		
20	3	40	1	60	4	80	1		



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