

CENTRE:

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TIME: 09.00 a.m. 12.00 noon

DATE:

0	4	1	1	2	0	1	8
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Test Booklet No.:

EXAM SEAT NO. :

1	3	6	1	9	0	0				
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EXAM SEAT NO. (in words)

one	three	six	one	nine	zero	zero				
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## NATIONAL MEANS-CUM-MERIT SCHOLARSHIP SCHEME EXAMINATION 2018-19 (STD. VIII)

### Instructions to the Candidates:

- PART I Mental Ability Test Time 90 Minutes Maximum Marks 90  
PART II Scholastic Aptitude Test Time 90 Minutes Maximum Marks 90
- Write your Seat No. both in figures and in words on this Question Booklet (above) as Well as on the Answer Sheet supplied to you.
- Each question carries one Mark.
- All questions are compulsory.
- You have to mark your answers on Answer sheet provided with the Question Booklet. Each question is provided with four alternatives. Answer to each question is to be indicated by making a dark circle on the correct alternative in the Answer sheet from amongst those given against the corresponding question in the Question Booklet.
- The answer sheet have two parts:  
PART- I Mental Ability Test & PART II Scholastic Aptitude Test. Answers to questions of MAT (PART-I) are to be indicated in PART I Portion of the Answer Sheet. Answers to questions of SAT (PART-II) are to be indicated in PART - II portion of the Answer Sheet.
- Rough work can be done any where in the question booklet.

Please Note the Centre Codes:

- Bicholim 0001
- Bardez 0002
- Pernem 0003
- Sattari 0004
- Tiswadi 0005
- Ponda 0006
- Salcete 0007
- Sanguem 0008
- Canacona 0009
- Quepem 0010
- Dharbandora 0011
- Mormugao 0012

  
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MENTAL ABILITY TEST-NMMSSE 2018-19

VIII

**DIRECTIONS:- (Q. No.:- 1-4)**

Understand the pattern and choose the correct alternative out of the given alternatives and complete the series

Q. 1. 16, 18, 32, 35, 48, 53, 64, 71, 80

(1) 18                      (2) 30                      (3) 24                      (4) 26

Q. 2. 0, 2, 6, 12, 20, 30, 42, ?

(1) 48                      (2) 50                      (3) 52                      (4) 56

Q. 3. 2, 6, 15, ?, 55, 78, 126

(1) 30                      (2) 28                      (3) 46                      (4) 50

Q. 4. 2, 12, 36, 80, 130, ?

(1) 252                      (2) 174                      (3) 168                      (4) 206

Q. 5. In a library there are 4 books on different subjects are lying on a table one over the other. In how many ways can the they be arranged one over the other?

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

**DIRECTIONS:- (Q.No:- 6-9) : Read the given information carefully and answer the questions given below:**

P,T,V,R,M,D,K and W sitting around a round table.

- V is second to the left of T
- T is fourth to the right of M
- D and P are not immediate neighbours of T
- D is third to the right of P
- W is not an immediate neighbour of P
- P is to the left of K

Q. 6. Who is second to the left of K ?

(1) P                      (2) R                      (3) M                      (4) W



Q. 7.	Who is to the immediate left of V? (1) P (2) M (3) W (4) None of these
Q. 8.	Who is third to the right of V? (1) R (2) T (3) K (4) P
Q. 9.	What is R's position with respect to V? (1) Second to the left (2) Third to the right (3) Fourth to the left (4) Fifth to the right
Q. 10.	Ambika starts walking straight towards east. After walking 65 metres, she turns to the left and walks 20 metres. Again she turns to the left and walks a distance of 30 metres straight. Again she turns to the left and walks a distance of 20 metres. How far she is from starting point? (1) 45 m (2) 35m (3) 40m (4) 30m
Q. 11.	The sum of the ages of Kavita, Lalita and Amita 20 years later will be m. What was their sum of ages 5 years back? (1) $m - 75$ (2) $m - 5$ (3) $m - 25$ (4) $m - 35$
<b>DIRECTIONS:- (Q. No.:- 12-15)</b> The terms have been arranged in some order. One term is missing. Find the missing term out of the given alternative	
Q. 12.	A, C, F, ?, R, B (1) K (2) G (3) I (4) H
Q. 13.	EV, GT, ?, KP, MN (1) IQ (2) IR (3) IS (4) HS
Q. 14.	AAB, DCC, IEE, PGG, ? (1) YKI (2) YYK (3) YIK (4) YKK
Q. 15.	E22, J17, O12, ? (1) R7 (2) U7 (3) S7 (4) T7

  
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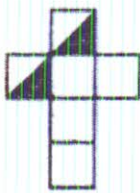


	<p><b>DIRECTIONS:- (Q. No.:- 16)</b></p> <p>Below in the question are given two statements I and II. . One of these statements may be the effect of the other statements. Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements.</p>
Q. 16.	<p><b>Statements:</b></p> <p>I. Importance of Yoga and exercise is being realized by all sections of the society.</p> <p>II. There is an increasing awareness about health in the society particularly among middle ages group of people.</p> <p>1. Statement I is the cause and statement II is its effect</p> <p>2. Statement II is the cause and statement I is its effect</p> <p>3. Both the statements I and II are independent causes.</p> <p>4. Both the statements I and II are effects of independent causes</p>
Q. 17.	<p>If <math>\frac{58}{73} = 4</math> then what is <math>\frac{64}{22} = ?</math></p> <p>(1) 3                      (2) 4                      (3) 6                      (4) 8</p>
	<p><b>DIRECTIONS:- (Q. No.:- 18-22) :</b></p> <p>The following equations are wrong due to incorrect order of signs. Choose the correct order of signs from the following alternatives so that equations become correct.</p>
Q. 18.	<p><math>5 + 9 = 4 - 8</math></p> <p>(1) <math>+ - =</math>                      (2) <math>= + -</math>                      (3) <math>= - +</math>                      (4) <math>- + =</math></p>
Q. 19.	<p><math>4 \div 8 = 2 \times 4</math></p> <p>(1) <math>\div \times =</math>                      (2) <math>= \div \times</math>                      (3) <math>= \times \div</math>                      (4) <math>\times = \div</math></p>
Q. 20.	<p><math>25 - 2 = 75 \times 25</math></p> <p>(1) <math>\times = -</math>                      (2) <math>= \times \div</math>                      (3) <math>+ = \times</math>                      (4) <math>= + \times</math></p>
Q. 21.	<p><math>66 = 27 \times 13 - 3</math></p> <p>(1) <math>= \times -</math>                      (2) <math>\times = -</math>                      (3) <math>= - +</math>                      (4) <math>- = \times</math></p>
Q. 22.	<p><math>15 = 8 + 23 - 8 \times 0</math></p> <p>(1) <math>+ - = \times</math>                      (2) <math>= + \times -</math>                      (3) <math>= - \times +</math>                      (4) <math>- \times = +</math></p>




Q. 23. A round cake is cut into 25 pieces, how many cuts are required?  
 (1) 22                      (2) 23                      (3) 24                      (4) 25


Q. 24. Choose the box that is similar to the box formed from the given sheet of paper (X)




(X)




(1)



(2)



(3)



(4)

(1) 1 and 4 only                      (2) 3 and 4 only                      (3) 1 and 2 only                      (4) 2 and 3 only

**DIRECTIONS:- (Q.No:- 25-29)**  
 In the following letter series some of the letters are missing, Choose the correct alternative

Q. 25. a \_ba \_bbaa \_baab \_a  
 (1) babb                      (2) abab                      (3) bbbb                      (4) baba

Q. 26. abc \_a \_cc \_bccab \_c  
 (1) ccab                      (2) bbca                      (3) aabc                      (4) cbac

Q. 27. ab \_ccabcc \_\_ \_b \_cc  
 (1) aabc                      (2) bbca                      (3) ccac                      (4) acbb

Q. 28. \_bcda \_cdab \_dabc \_  
 (1) bcad                      (2) abcd                      (3) adbc                      (4) cabd

Q. 29. \_ab \_c \_dda \_bb \_c \_  
 (1) abcacdd                      (2) bcaddba                      (3) aabbccd                      (4) dcabbda

  
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Q. 30. What was the day on 10<sup>th</sup> May 1857?  
 (1) Tuesday (2) Wednesday (3) Thursday (4) Friday

Q. 31. A,B,C are any different digits from 0 to 9. Then which of the following option is correct

A	5	B
	X	C
B	6	2

(1) A=1,B=4,C=3 (2) A=5,B=3,C=4 (3) A=3,B=6,C=2 (4) A=4,B=6,C=2

**DIRECTIONS:- (Q. No.:- 32-36)**

The table below shows certain words and their codes. On the basis of these find the codes for the given words in each question.

WORDS	CODES
They good are	468
We not bad	107
I am good	938
They am we	094
You not good	728

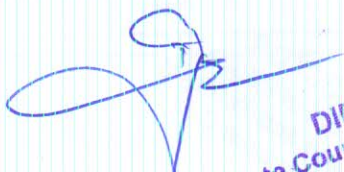
Q. 32. I bad  
 (1) 39 (2) 31 (3) 87 (4) 23

Q. 33. You are we  
 (1) 620 (2) 207 (3) 920 (4) 276

Q. 34. They good  
 (1) 04 (2) 20 (3) 98 (4) 48



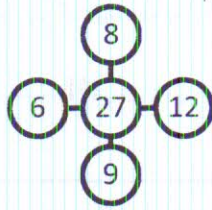
Q. 35.	not bad	(1) 31	(2) 17	(3) 48	(4) 38																
Q. 36.	They we l	(1) 137	(2) 086	(3) 034	(4) 987																
Q. 37.	If South-East becomes North and North-East becomes West then West becomes _____	(1) North-East	(2) South-East	(3) North-West	(4) South-West																
Q. 38.	Rishika ranks twenty first in a class of fifty-one. What is her rank from the last?	(1) 30	(2) 31	(3) 26	(4) 21																
<p><b>DIRECTIONS:- (Q. No.:- 39-43)</b> Choose the correct alternative and write in place of question mark(?)</p>																					
Q. 39.		<table border="1"> <tr> <td>11</td> <td>82</td> <td>7</td> </tr> <tr> <td>13</td> <td>122</td> <td>9</td> </tr> <tr> <td>15</td> <td>?</td> <td>10</td> </tr> </table>				11	82	7	13	122	9	15	?	10							
11	82	7																			
13	122	9																			
15	?	10																			
		(1) 130	(2) 155	(3) 176	(4) 175																
Q. 40.		<table border="1"> <tr> <td>18</td> <td>6</td> <td>36</td> <td>12</td> </tr> <tr> <td>25</td> <td>8</td> <td>50</td> <td>17</td> </tr> <tr> <td>32</td> <td>12</td> <td>64</td> <td>22</td> </tr> <tr> <td>39</td> <td>14</td> <td>78</td> <td>?</td> </tr> </table>				18	6	36	12	25	8	50	17	32	12	64	22	39	14	78	?
18	6	36	12																		
25	8	50	17																		
32	12	64	22																		
39	14	78	?																		
		(1) 15	(2) 25	(3) 32	(4) 41																



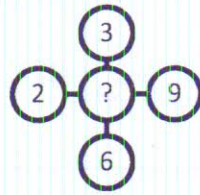
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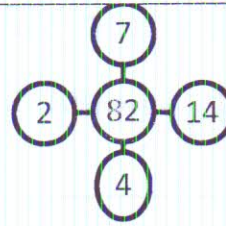
Q. 41.



(1) 81



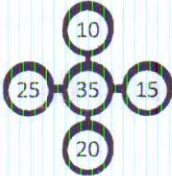
(2) 76



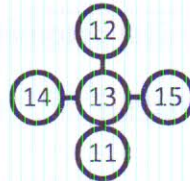
(3) 54

(4) 90

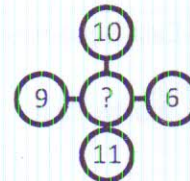
Q. 42.



(1) 7



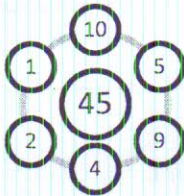
(2) 12



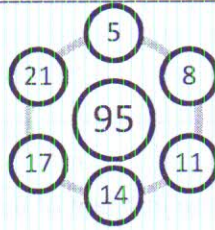
(3) 10

(4) 9

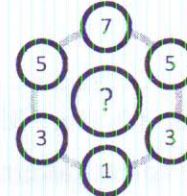
Q. 43.



(1) 32



(2) 30



(3) 35

(4) 48

Q. 44. The number of boys in a class is four times the number of girls. Which one of the following numbers cannot represent the total number of children in the class?

(1) 45

(2) 50

(3) 25

(4) 52

Q. 45. If you write down all the numbers from 1 to 100, then how many times do you write 3?

(1) 20

(2) 18

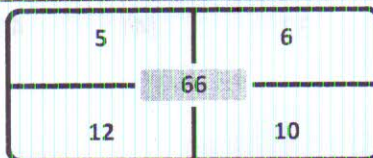
(3) 25

(4) 29

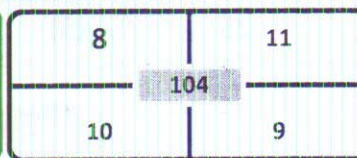
**DIRECTIONS:- (Q.No:- 46-49)**

Choose the correct alternative and write in place of question mark (?)

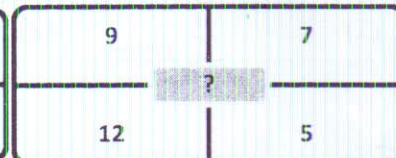
Q. 46.



(1) 237



(2) 157



(3) 200

(4) 117



Q. 47.



- (1) 108      (2) 72      (3) 243      (4) 81

Q. 48.

1	2	3
1	4	9
D	L	?

- (1) X      (2) F      (3) M      (4) O

Q. 49.

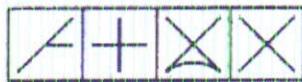
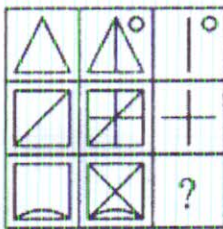
A	C	C
E	E	Y
D	D	?

- (1) M      (2) N      (3) P      (4) T

**Directions:- (Q. No.:- 50-54)**

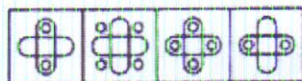
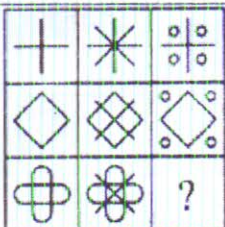
In each of the following questions, find out which of the answer figures (1), (2), (3) and (4) completes the figure matrix?

Q. 50.



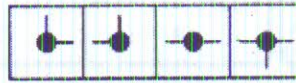
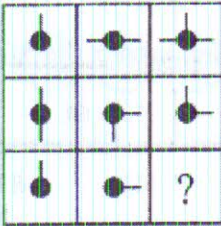
- (1) (2) (3) (4)

Q. 51.



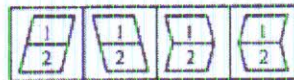
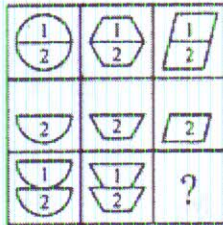
- (1) (2) (3) (4)

Q. 52.



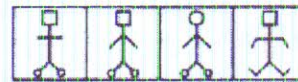
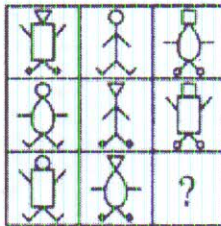
(1) (2) (3) (4)

Q. 53.



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

Q. 54.



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

Q. 55. P can do a piece of work in 24 days. If Q is 60% more efficient than P then the number of days taken by Q to do the same work is \_\_\_\_\_

(1) 45 (2) 30 (3) 20 (4) 15

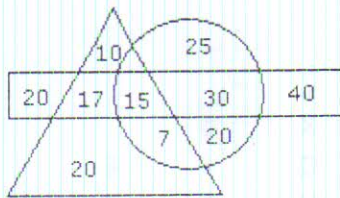
Q. 56. Find the odd one out of the following terms

(1) DH26 (2) OB34 (3) JK42 (4) UC48



**Directions:- (Q. No.:- 57-61)**

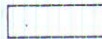
Study the Venn diagram given below of a city in western country and answer each of the following questions.



→ Persons who takes tea



→ Persons who takes coffee



→ Persons who takes wine

Q. 57. How many persons who take tea and wine but not coffee ?

- (1) 20                      (2) 17                      (3) 25                      (4) 15

Q. 58. How many persons are there who take both tea and coffee but not wine ?

- (1) 22                      (2) 17                      (3) 7                      (4) 20

Q. 59. How many persons take wine?

- (1) 100                      (2) 82                      (3) 92                      (4) 122

Q. 60. How many persons are there who takes only coffee ?

- (1) 90                      (2) 45                      (3) 25                      (4) 20

Q. 61. How many persons takes all the three ?

- (1) 20                      (2) 17                      (3) 25                      (4) 15

Q. 62. How many times in a day hands of a clock are in a straight line but in opposite direction?

- (1) 22                      (2) 44                      (3) 24                      (4) 48

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Directions:- (Q. No.:- 63-67)

In the following questions letters are arranged in the form of pyramid. From the pyramid complete each set of series

						A								
						N	M	B						
					Y	X	L	O	C					
			H	G	Z	W	P	K	D					
		O	N	I	F	A	V	Q	J	E				
	T	S	P	M	J	E	B	U	R	I	F			
W	V	U	R	Q	L	K	D	C	T	S	H	G		

Q. 63. HNPRQ,GIMQL,ZFJLK,?,PVBDC

- (1) KQUCT (2) QLKDC (3) IFAVQ (4) WAEKD

Q. 64. FHSIE,ISTRJ,RTCUQ,UCDBV,?

- (1) JLKDC (2) BDKEA (3) LPVBD (4) VBDKE

Q. 65. YGIM,LOXY,ZFJL,?

- (1) KPWZ (2) JQVA (3) CUQK (4) PWZG

Q. 66. GYXOW,ZXOLP, FZWPV,?

- (1) PVQJE (2) EBURI (3) AWPQK (4) KQUCT

Q. 67. AMONB, YGIHZ,?

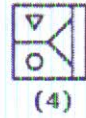
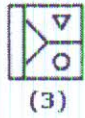
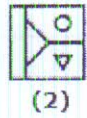
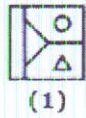
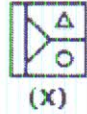
- (1) ZFJAI (2) FAVQJ (3) LPVQJ (4) OSUTP

Q. 68. A widow has 4 married sons and each one of them have three children. How many members are there in the family?

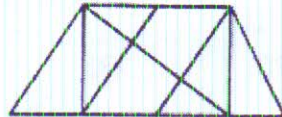
- (1) 22 (2) 21 (3) 24 (4) 25



Q. 69. Choose the correct water image of the figure X?



Q. 70. Count the number of triangles in the given figure



- (1) 12      (2) 16      (3) 14      (4) 13

**Directions:- (Q. No.:- 71- 74)**

In the given following questions two numbers given before :: and after :: have same relationship. Write the correct choice?

Q. 71. 63:77::?:105

- (1) 89      (2) 81      (3) 91      (4) 99

Q. 72. 12:30::20:?

- (1) 24      (2) 42      (3) 30      (4) 28

Q. 73. ?:122::168:290 \_\_\_\_\_

- (1) 32      (2) 56      (3) 61      (4) 48

Q. 74. 2:?::28:65

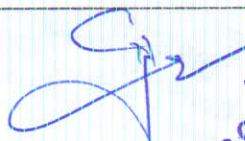
- (1) 9      (2) 11      (3) 13      (4) 12

Q. 75. If  $B \times Y = 50$ ,  $F \times R = 108$ . What is ? in  $L \times ? = 252$

- (1) U      (2) V      (3) W      (4) X

  
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Q. 76.	If $B^C = 8$ , $O^B = 225$ then $E^D =$ ___						
(1)	125	(2)	625	(3)	225	(4)	525
Q. 77.	If $B^2 + H^2 = 68$ and $L^2 + C^2 = 153$ then $T^2 + E^2$ is _____						
(1)	195	(2)	375	(3)	256	(4)	425
Q. 78.	If $M + N - K = 16$ , $T + S - Z = 13$ , then $Y - K + N$ is _____						
(1)	24	(2)	20	(3)	28	(4)	18
Q. 79.	If $V \div K \times C = 6$ , $P \div D \times W = 92$ then $T \div B \times H$ is						
(1)	78	(2)	80	(3)	42	(4)	60
Q. 80.	The sum of the first 45 natural numbers is _____						
(1)	1395	(2)	1080	(3)	1175	(4)	1035
Q. 81.	A clock is started at noon. By 10 minutes past 5, the hour hand has turned through						
(1)	$145^\circ$	(2)	$120^\circ$	(3)	$155^\circ$	(4)	$90^\circ$
	<b>Directions:- (Q. No.:- 82- 84)</b> Odd one out						
Q. 82.	Milk, Ghee, Paneer, Butter						
(1)	Milk	(2)	Paneer	(3)	Butter	(4)	Ghee
Q. 83.	$(25, \frac{1}{4})$ , $(20, \frac{1}{5})$ , $(16, \frac{1}{6})$ , $(10, \frac{1}{10})$						
(1)	$(20, \frac{1}{5})$	(2)	$(16, \frac{1}{6})$	(3)	$(10, \frac{1}{10})$	(4)	$(25, \frac{1}{4})$





Q. 84.	(3,4,5),(6,8,10),(7,8,16),(5,11,14)						
(1)	(6,8,10)	(2)	(3,4,5)	(3)	(5,11,14)	(4)	(7,8,16)
Q. 85.	A bird lover was asked how many birds he had in the basket. He replied that there were all parrots but six, all pigeons but six, and all koels but six. How many birds he had in the basket in all ?						
(1)	9	(2)	24	(3)	16	(4)	0
Q. 86.	What is the unit digit of the expansion $132^{92}$						
(1)	4	(2)	6	(3)	8	(4)	2
Q. 87.	The cost of 7 chairs and 5 tables is ₹ 4518 then the cost of 21 chairs and 15 tables is _____						
(1)	₹ 9036	(2)	₹ 18072	(3)	₹ 13554	(4)	₹ 4518
Q. 88.	Which of the following alternative will fit in place of X? 15,310,515,720,X,1130,1335						
(1)	925	(2)	824	(3)	1030	(4)	721
Q. 89.	The difference of two numbers is 1365. On dividing the larger number by the smaller, we get 6 as quotient and the 15 as remainder. What is the smaller number?						
(1)	240	(2)	270	(3)	300	(4)	385
Q. 90.	Choose the alternative which closely resembles the mirror image of word <b>MAGAZINE</b>						
(1)	MAGASINE	(2)	MAGAZAM	(3)	MAGAZINE	(4)	MAGAZAM

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## Scholastic Aptitude Test (VIII)

Part II

Time: 10.30 a.m. to 12.00 noon

Marks: 90

- Q. 1. The force acting on unit area of a surface is \_\_\_\_\_  
(1) Pressure (2) Velocity  
(3) Force (4) Displacement
- Q. 2. An example of a contact force from the following is \_\_\_\_\_  
(1) Magnetic force (2) Gravitational force  
(3) Electrostatic force (4) Frictional force
- Q. 3. The grease is used between the moving parts of the machine to \_\_\_\_\_  
(1) increase the friction (2) reduce the friction  
(3) equalize the friction (4) to maintain the friction
- Q. 4. In human beings the sound is produced by \_\_\_\_\_  
(1) diaphragm (2) Oesophagus  
(3) larynx (4) Trachea
- Q. 5. An object oscillates 24 times in two seconds, then its frequency is \_\_\_\_\_  
(1) 48 Hz (2) 12 Hz  
(3) 26 Hz (4) 28 Hz
- Q. 6. The unit of loudness of sound is \_\_\_\_\_  
(1) Decibel (2) Diopter  
(3) Watt (4) Coulomb
- Q. 7. The device used to detect a charge on the body is \_\_\_\_\_  
(1) microscope (2) telescope  
(3) electroscope (4) stethoscope
- Q. 8. When the light ray strikes at an angle of  $30^\circ$  on a plane mirror, the angle at which the light ray reflect is \_\_\_\_\_  
(1)  $60^\circ$  (2)  $15^\circ$   
(3)  $40^\circ$  (4)  $30^\circ$
- Q. 9. The dark muscular structure of the human eye is \_\_\_\_\_  
(1) pupil (2) cornea  
(3) cones (4) iris



Q. 10. A person standing 1m away from the plane mirror finds his image at \_\_\_\_\_

- (1) 2 m
- (2) 0.5 m
- (3) 1 m
- (4) 0.25 m

Q. 11. The first Indian artificial satellite was \_\_\_\_\_

- (1) Aryabhata
- (2) Kalpana - I
- (3) Bhaskara
- (3) INSAT

Q. 12. The largest planet of our solar system is \_\_\_\_\_

- (1) Jupiter
- (2) Mercury
- (3) Mars
- (4) Venus

Q.13. An element forms a gaseous oxide, which on dissolving in water gives solution in which blue litmus paper turns red. The element is -----

- 1) sodium
- 2) sulphur
- 3) calcium
- 4) magnesium

Q. 14. Which of the following is not a chemical change ?

- 1) Electrolysis of water
- 2) Rusting of Iron
- 3) Melting of ice
- 4) Burning of wood

Q. 15. Which of the following air pollutant reduce oxygen carrying capacity of blood in Human, the most.

- 1) nitrous oxide
- 2) sulphur dioxide
- 3) carbon dioxide
- 4) carbon monoxide

Q. 16. Master Ketan was given some samples of fuels.

- (a) wood
- (b) coal
- (c) petrol
- (d) LPG.

Which among them is/are fossil fuel/s ?

- 1) only (b),(c) and (d)
- 2) only (a)
- 3) only (a), (b), (c)
- 3) only (a), (c) & (d)

Q. 17. The substance which sublimes on heating is -----

- 1) common salt
- 2) iodine
- 3) sugar
- 4) alum

- Q. 18. Mast Nuruddin was testing some gases in the chemistry laboratory. One of the gases turned lime water milky. Nuruddin concluded that the gas is-----
- 1) Hydrogen
  - 2) Nitrogen
  - 3) Carbon dioxide
  - 4) Oxygen
- Q. 19. In most of the Electrical appliances, thermosetting plastic used is -----
- 1) Potythene
  - 2) PVC
  - 3) Melamine
  - 4) Bakelite
- Q. 20. Very often copper vessel when exposed to moist air for a long period, develops a greenish layer on the surfaces. This is a mixture of -----
- 1)  $\text{Cu(OH)}_2 + \text{CuCO}_3$
  - 2)  $\text{Cu(OH)}_2 + \text{CaCO}_3$
  - 3)  $\text{CuCO}_3 + \text{H}_2\text{O}$
  - 4)  $\text{CuCO}_3 + \text{FeSO}_4$
- Q. 21. Seema was conducting an experiment with sodium hydroxide and Aluminum metal. She brought a burning matchstick near the mouth of the test tube and the gas escaping out of the test tube started burning by making a pop sound. This means that gas is ----
- 1) Oxygen
  - 2) Nitrogen
  - 3) Carbondioxide
  - 4) Hydrogen
- Q. 22. Which of the following can be beaten up, to form thin sheets?
- 1) gold
  - 2) phosphorus
  - 3) oxygen
  - 4) charcoal
- Q. 23. Which of the following statements 'a' to 'd' are true for an Ideal Fuel
- a) cheaper and easily available
  - b) have Calorific value
  - c) easily transportable
  - d) produce many pollutant gases
- 1) (a) and (b) are true
  - 2) (b) and (c) are true
  - 3) (b) and (d) are true
  - 4) (a), (b), (c) and (d) are true
- Q. 24. Pollination is best defined as
- (1) transfer of pollen from anther to stigma
  - (2) germination of pollen grains
  - (3) growth of pollen tube in ovule
  - (4) visiting flowers by insects



- Q. 25. Process of cell division can take place by  
(1) heterosis (2) fusion  
(3) mitosis (4) none of these
- Q. 26. Which one of the following has haustoria or sucking roots ?  
(1) Orchids (2) Mango  
(3) Chestnut (4) Cuscuta
- Q. 27. The fruit after ripping becomes soft. It is due to ?  
(1) dissolution of tannin in sap (2) dissolution of middle lamella  
(3) formation of ethylene gas (4) formation of auxin
- Q. 28. Spore formation occurs in  
(1) Yeast (2) Hydra  
(3) Amoeba (4) Rhizopus
- Q. 29. Which one among the following is known as 'animal starch' ?  
(1) Cellulose (2) Glycogen  
(3) Pectin (4) Chitin
- Q. 30. The unit structure of genes is made up of ?  
(1) RNA (2) DNA  
(3) Endoplasmic reticulum (4) Magnesium
- Q. 31. Which of the following diseases is caused by a virus ?  
(1) Plague (2) Polio  
(3) Tetanus (4) Leprosy
- Q. 32. The function of Trypsin is to ?  
(1) Break down fats (2) Break down proteins  
(3) Synthesize proteins (4) Break down Carbohydrates
- Q. 33. Carrot is orange in colour because ?  
(1) It grows in the soil (2) It is not exposed to sunlight.  
(3) It contains carotene (4) The entire plant is orange in colour

- Q. 34. Insects responsible for transmitting diseases are called ?  
(1) Transmitter (2) Drones  
(3) Vector (4) Conductor
- Q. 35. Prokaryotic cell lacks  
(1) nucleolus (2) nuclear membrane  
(3) membrane bound organelles (4) all of these
- Q. 36. Who wrote the book War of Independence 1857 ?  
1) Sane Guruji 2) Aurobindo Ghosh  
3) Veer Savarkar 4) Bhupendranath Datta
- Q. 37. Which Act authorised the Government to arrest any Indian without inquiry ?  
1) Rowlatt Act 2) Martial Law  
3) Black Act 4) None of these
- Q. 38. Every country has its own \_\_\_\_\_  
1) Land 2) Political Heritage  
3) Independence 4) Background
- Q. 39. Where is National Defence Academy ?  
1) Mumbai 2) Pune  
3) Delhi 4) Dehradum
- Q. 40. The Bible, the holy book of Christians is in \_\_\_\_\_ language.  
1) English 2) Latin  
3) French 4) Hebrean
- Q. 41. Who is called the father of French Revolution ?  
1) Rousseau 2) Voltaire  
3) Thomas Jefferson 4) Louis XVI
- Q. 42. Which was the first newspaper in India ?  
1) Darpan 2) Prabhakar  
3) Amrit Bazar Patrika 4) Kesari





- Q. 43. Which British Prime Minister made declaration about Indian Independence in British Parliament ?
- 1) Churchill
  - 2) Thatcher
  - 3) Atlee
  - 4) Roosevelt
- Q. 44. Who reached the southern tip of Africa in the hope of finding a new sea route to India ?
- 1) Vasco-da-Gama
  - 2) Bartolomeu Dias
  - 3) Amerigo
  - 4) Columbus
- Q. 45. Who was the first President of America ?
- 1) George Washington
  - 2) Thomas Jefferson
  - 3) Martin Luther king
  - 4) George Bush
- Q. 46. According to which treaty did the British get the Right to collect Land Revenue in Bengal Province ?
- 1) The Treaty of Vasai
  - 2) The Treaty of Allahabad
  - 3) The Treaty of Salbai
  - 4) The Treaty of Merath
- Q. 47. Who founded the Asiatic Society of Bengal
- 1) Max Muller
  - 2) Lord Bentinck
  - 3) William Jones
  - 4) Lord Dalhousie
- Q. 48. Which one of the following determines the thickness of soil profile ?
1. Parent rock
  2. Relief
  3. Time
  4. Climate
- Q. 49. The thick black liquid found between the layers of rocks is called
1. Coal
  2. Petroleum
  3. Platinum
  4. Natural gas
- Q. 50. Making flour from wheat is an example of -----
1. Secondary activity
  2. Primary activity
  3. Tertiary activity
  4. None of the above
- Q. 51. Electricity produced from Coal is called -----
1. Hydel power
  2. Nuclear power
  3. Geothermal power
  4. Thermal power

- Q. 52. The difference between the birth rate and the death rate is called \_\_\_\_\_
1. Birth rate
  2. Death rate
  3. Natural growth rate
  4. Growth rate
- Q. 53. Which one of the following methods is the most appropriate to check soil erosion on steep slopes ?
1. Intercropping
  2. Mulching
  3. Rock dam
  4. Terrace farming
- Q. 54. Which one of the following is a intermediate direction ?
1. North – West
  2. North – East
  3. South – West
  4. All the above
- Q. 55. If the time of sunrise at a place  $97^{\circ}\text{E}$  in Arunachal Pradesh is 6.00 a.m. what will be the probable local time at a place  $68^{\circ}\text{E}$  in Gujarat.
1. 7 a.m.
  2. 8 a.m.
  3. 5 a. m.
  4. 4 a.m.
- Q. 56. The Sun's rays are vertically overhead twice in a year in the region between
1. Tropic of cancer and Tropic of Capricorn.
  2. Tropic of cancer and Arctic circle
  3. Tropic of Capricorn and Antarctic circle
  4. Tropic of Capricorn and Arctic circle
- Q. 57. Which one of the following industries is the oldest industry in the world ?
1. Automobile industry
  2. Textile industry
  3. Hospitality industry
  4. Information Technology industry
- Q. 58. Which are three main factors that cause population change ?
1. Births, deaths and migration
  2. Births, deaths and marriage
  3. Births, deaths and life expectancy
  4. Births, deaths and sex ratio
- Q. 59. A narrow zone where all forms of life exist is called -----
1. Lithosphere
  2. Hydrosphere
  3. Biosphere
  4. Atmosphere



- Q. 60. Which nations can become members of the United Nations ?
- 1) Sovereign
  - 2) Republic
  - 3) Those countries who Recognize the conditions of United Nations
  - 4) Imperial
- Q. 61. Which is the stage to solve International peace problems ?
- 1) United Nations organization
  - 2) World Trade organization
  - 3) SAARC
  - 4) None of these
- Q. 62. How many Nations comprise the Security council of the United Nations ?
- 1) 5
  - 2) 10
  - 3) 15
  - 4) 20
- Q. 63. When was the conference about finalisation of environmental Programme organized ?
- 1) 1972
  - 2) 1992
  - 3) 1997
  - 4) 2002
- Q. 64. Where is the Food and Agriculture organization situated ?
- 1) Rome
  - 2) Paris
  - 3) Vienna
  - 4) Washington
- Q. 65. To preserve \_\_\_\_\_ is at the core of India's Foreign policy.
- 1) To create friendly Relations
  - 2) To establish dominance
  - 3) To preserve International Peace
  - 4) Economic Development
- Q. 66. No country in the world is totally \_\_\_\_\_ in every respect.
- 1) Sovereign
  - 2) Self sufficient
  - 3) Self reliant
  - 4) None of these
- Q. 67. The chiefs of the three forces are appointed by \_\_\_\_\_
- 1) Prime Minister
  - 2) Defence Minister
  - 3) President
  - 4) Governor

Q. 68. Where is the level of literacy high ?

- 1) In poor Nations
- 2) In rich Nations
- 3) In developed Nations
- 4) In developing Nations

Q. 69. Who appoints the Chairperson of National Human Right Commission ?

- 1) President
- 2) Prime Minister
- 3) Retired Judge of Supreme Court
- 4) None of these

Q. 70. Who was the first female Chairperson of the United Nations General Assembly ?

- 1) Smt Vijayalaxmi Pandit
- 2) Smt Sarojini Naidu
- 3) Smt Indira Gandhi
- 4) Smt Margaret Thatcher

Q. 71)  $\sqrt{0.81} \times \sqrt{0.25} \times \sqrt{100} = \underline{\hspace{2cm}}$

- 1) 4.5
- 2) 0.45
- 3) 0.045
- 4) 45

Q. 72) The mean of 10, 3, 8,  $x$ , 5 is 6 . Find the value of  $x$

- 1) 4
- 2) 3
- 3) 6
- 4) 5

Q. 73) An article is at 10 % more than the cost price. If discount of 10 % is allowed then which of the following is right?

- 1) 1 % gain
- 2) 1% loss
- 3) no gain no loss
- 4) 1.1 % loss

Q. 74) Which of the following is a perfect cube ?

- 1) 10000
- 2) 243
- 3) 343
- 4) 270000

Q. 75)  $\left[ \left(\frac{1}{2}\right)^{-1} + \left(\frac{2}{3}\right)^2 - \left(\frac{3}{4}\right)^0 \right]^{-2} = ?$

- 1)  $\frac{81}{484}$
- 2)  $\frac{81}{169}$
- 3)  $\frac{169}{81}$
- 4)  $\frac{16}{81}$



Q. 76) Which of the following is the difference between the squares of 21 and 22?

1) 21

2) 22

3) 42

4) 43

Q. 77) Which of the following is the value of  $(x + \frac{1}{x})^2$ ?

1)  $x^2 + \frac{1}{x^2}$

2)  $x^2 - \frac{1}{x^2}$

3)  $x^2 + \frac{1}{x^2} + 2$

4)  $x^2 + \frac{1}{x^2} + 2x$

Q. 78) What is the value of  $5x^{25} - 3x^{32} + 2x^{-12}$  at  $x = 1$ ?

1) 0

2) 2

3) 4

4) None of these

Q. 79) Which of the following is equal to  $x^3 - 225x$ ?

1)  $x(1 - 15x)(1 + 15x)$

2)  $x(x - 15)(x + 15)$

3)  $x(1 - 15x)(1 - 15x)$

4)  $x(x - 15)(x - 15)$

Q. 80) Two years ago Ayush was 'x' years old. Then, what was his age 5 years ago?

1)  $x + 5$

2)  $x - 7$

3)  $x - 5$

4)  $x - 3$

Q. 81)  $(4pq + 3q)^2 - (4pq - 3q)^2 = ?$

1)  $48pq^2$

2)  $9q^2$

3)  $16p^2q^2$

4) None of these

Q. 82)  $(\frac{x}{y})^2 \times (\frac{y}{z})^3 \times (\frac{z}{x})^4 = ?$

1)  $\frac{x^2}{yz}$

2)  $\frac{yz}{x^2}$

3)  $\frac{xy}{z^2}$

4)  $\frac{xz}{y^2}$

Q. 83) If  $(5^2)^m = (5^{-7})^2$ , then the value of m is \_\_\_\_\_.

1) 5

2) -2

3) -7

4) 2

- Q. 84) If  $(\frac{4}{5})^{13} \div (\frac{4}{5})^{19} = (\frac{5}{4})^x$ , then the value of x is \_\_\_\_\_.
- 1) 13  
2) 19  
3) 6  
4) -6
- Q. 85) If the dimensions of a room are 2m, 3m and 4m, then which of the following is the number of cubes of size  $\frac{1}{2}$ m x  $\frac{1}{3}$ m x  $\frac{1}{4}$ m, which can be placed in the room ?
- 1) 960  
2) 672  
3) 676  
4) 576
- Q. 86) When the height is doubled, the curved surface area of a cylinder increases by \_\_\_\_\_ times.
- 1) 2  
2) 4  
3) 6  
4) 8
- Q. 87) The measure of interior angle of a regular pentagon is \_\_\_\_\_.
- 1) 180°  
2) 720°  
3) 360°  
4) 108°
- Q. 88) Adjacent angles of a parallelogram are 2x and 3x. What are the measures of the adjacent angles ?
- 1) 72° and 108°  
2) 36° and 72°  
3) 144° and 216°  
4) 72° and 180°
- Q. 89) An oil tin measures 20 cm x 30 cm x 40 cm. If 1 m<sup>2</sup> of tin costs Rs. 25, then the cost of 10 such tins will be \_\_\_\_\_.
- 1) Rs. 13  
2) Rs. 6  
3) Rs. 130  
4) Rs. 60
- Q. 90) The radius of a roller is 35 m and length of the roller is 2m. How much area will the roller cover in 50 revolutions ?
- 1) 3850005cm<sup>2</sup>  
2) 220m<sup>2</sup>  
3) 200m<sup>2</sup>  
4) 7700cm<sup>2</sup>

*Good Luck*



**National Means Cum Merit Scholarship Scheme Examination (NMMSSSE) 2018-19 Std.VIII**

D.O.E 04-11-2018

Project Year : 201

**ANSWER KEY**

Part I : Mental Ability Test : (MAT)

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

**ANSWER KEY**

Part II : Scholastic Aptitude Test : (SAT)

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



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