Roll No. :		NMMS(E)
ENGLISH	В	SI No. :

### NMMS - NOVEMBER, 2019

# MENTAL ABILITY AND SCHOLASTIC APTITUDE TEST

Time: Part - 1:90 Minutes
Time: Part - II:90 Minutes

Max. Marks: 90

Max. Marks: 90

#### Instructions to the Candidates

Read the following instructions carefully before you answer the questions. Answers are to be SHADED on a SEPARATE given OMR Answer Sheet with a Black Ball Point Pen. Read the Instructions printed on the OMR Sheet carefully before answering the questions.

- Please write your Centre Code No. and Roll No. very clearly (only one digit in one block)
  on the OMR Sheet as given in your admission card. Please see that no block is left unfilled
  and even Zeros appearing in the Centre Code No. are correctly transferred to the appropriate
  blocks on the OMR Sheet as shown in the example given in the OMR Sheet. For all
  subsequent purposes, your Centre Code No. and Roll No. shall remain the same as given
  on the Admission Card.
- The Test is in TWO Parts. Part-I consists of 90 questions and Part-II also consists of 90 questions.
- All questions in Part-I and Part-II carry one mark each.
- Since all questions are compulsory, do not try to read through the whole question paper before beginning to answer it.
- Begin with the first question and keep trying one question after another till you finish both the Parts.

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Contd...



- 6. If you do not know the answer to any question, do not spend much time on it and pass on to next one. If time permits, you can come back to the questions which you have left out in the first instance and try them again.
- Since the time allotted to the two parts of this question paper is very limited, you should make the best use of it by not spending too much time on any question.
- 8. A blank page is provided for rough work at the end of each part.
- Remember, you have to shade answers on a separate OMR sheet provided.
- 10. Answer to each question is to be indicated by SHADING the circle having the number of the correct alternative in the OMR Sheet from among the ones given for the corresponding question in the booklet.
- Now turn to the next page and start answering the questions.
- 12. After the examination, you should hand over the OMR Sheet to the Invigilator of the room.
- 13. The candidate need not return this Question Paper Booklet and can take it after the completion of the examination. No candidate should leave the examination hall before the end of the examination.

This Booklet consists of 31 Pages for 180 Questions + 03 Pages of Rough Work + 02 Title Pages i.e. Total 36 Pages

## Part - I: MENTAL ABILITY TEST

Time: 90 Minutes

Max. Marks: 90

Note: SHADE the correct alternatives in the OMR Answer Sheet provided from amongst the ones given against the corresponding questions in the Question Paper Booklet. For shading the circles, use a Black Ball Point Pen.

Directions: Questions (1 to 10):

In these questions a figure (X) is given with three parts and fourth with "?" mark. Find the fourth part from the adjacent figures to complete the figure.

20



(X)



 $\{1\}$ 



(2)



(3)



(4)

(1)



2

(3) 3

(4) 4

2.



(1) - 1

2  $\{2\}$ 

(3) 3

(4)

3.



(X)



(1)



(2)



(3)



(4)

(1)

(2)2 (3) 3

(4) 4

4

4.



(1)



(2)



(3)



 $\{4\}$ 

(1)

(2)2 (3) - 3

(4)



5,,



(X)

(1) I



(1)

(2)

2

2



(2)



(3) (3) 3



(4)

(4) - 4

6.



(X)

(l) T



(1) (2)



(2)



(3) (3) 3 (4)

(4) 4

7.



(X) (1) I



(1) (2) -2



(2)



(3) (3) 3



(4) 4

8.



assResut

(X)

(1) 1

(1)

, (2) 2 (2)

(3) (3) 3 (4)

(4) 4

9.,



(X)

(1) - 1

X)

(1)

(2)

2



(2)



(3) (3) 3



(4)

(4) - 4

10.



-(X)

(1) 1



(1)

(2) - 2



(2)



(3)

(3) - 3



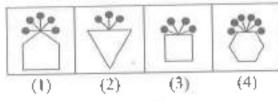
(4)

(4) - 4

## Directions: Questions (11 to 20):

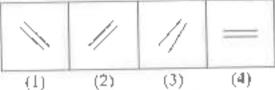
In each problem, out of the four figures marked (1), (2), (3) and (4) three are similar in a certain manner. However, one figures is not like the other three. Choose the figure which is different from the rest.





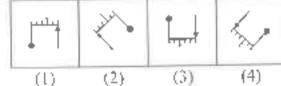
- (1) 1
- (2) 2
- (3) 3
- (4) 4

#### 12.



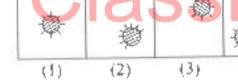
- (1) 1
- (2) 2
- (3) 3
- (4) 4

#### 13.



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

### 14.

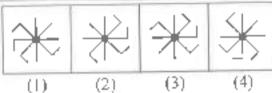


- (1) 1
- (2) 2

(4)

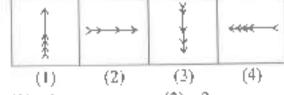
- (3) 3
- (4) 4

#### 150



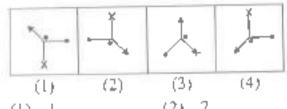
- (1)
- (2)2
- (3) 3
- (4) 4

#### 16.



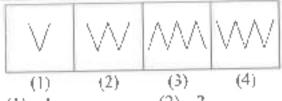
- (1)1
- (2) 2
- (3) 3
- (4) 4

17.



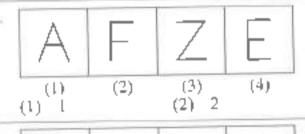
- (i)
- (2) 2
- (3) 3
- (4) 4

18.



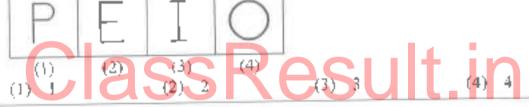
- (1) 1
- (2) 2
- (3) 3
- (4)4

19.



- (3) 3
- (4) 4

20.



Directions: Questions (21 to 30):

In the given five alternative (1), (2), (3), (4), (5) figures, which three can make a square. Find,

21,



(1)



(2)



(3)



(4)



(5)

- (1) 1, 4, 5
- 2,4,5 (2)
- 1, 2.3 (3)
- 2, 3, 4 (4)

22.



(1)



(2)



(3)



(4)



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



23.



(2)



(4)



(1) 1, 2, 4

(2) 1, 2, 5

(3) 2, 3, 4

(4) 2, 4, 5

24.



(2)



(4)



(1) 1, 2, 3

(2) 1, 2, 4

(3) 1, 3, 5

(4) 1, 4, 5

25,



(1)

(2)



(3)



(1) 1, 3, 4

(2) 3, 4, 5

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

(4) 1,3,5

26.



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

27.



(2)



(3)



(4)



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

28.



(2)



(3)



(4)



(5)

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

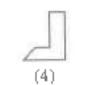




29.



(3)



(5)

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

30...



(1) 1, 2, 3

(2)

(2)



2, 3, 4

(4)(3) 1, 2, 4

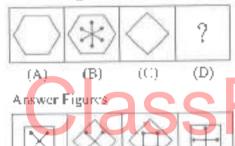


(4) 2, 4, 5

Directions: Questions (31 to 40):

Each of the following questions consist of two sets of figures. Figure A, B, C and D constitute the Problem set while figures 1, 2, 3 and 4 constitute the Answer Set. There is a definite relationship between Figures A and B. Establish a similar relationship between figures C and D by selecting a suitable figure from the Answer Set that would replace the question mark (?) in figure. (D).

Problem Figures



(2)

- (1) 1
- 2 (2)

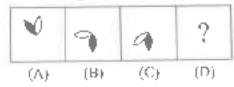
(4)

(3)

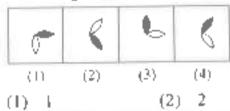
- (3) 3
- (4) 4

Problem Figures: 32.

(1)



Answer Figures:

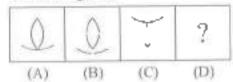


(2)

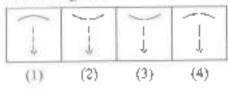
- (3) 3
- (4)4



33. Problem Figures:

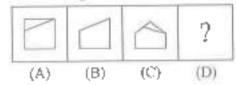


Answer Figures:



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

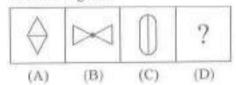
34. Problem Figures:



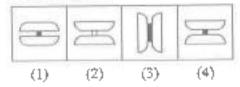
Answer Figures:



35. Problem Figures:

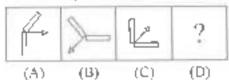


Answer Figures:

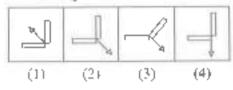


- (1) 1
- (2) 2
- (3) 3
- (4) 4

36 Problem Figures:



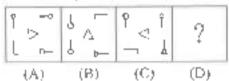
Answer Figures:



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

37.

Problem Figures:



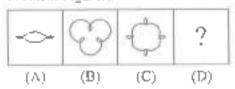
Answer Figures;



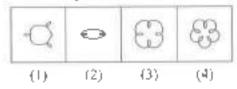
- (1)
- (2) 2
- (3) 3
- (4) 4

38.

Problem Figures:

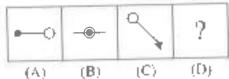


Answer Figures:

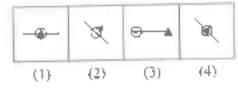


- (1) -1
- (2)2
- (3) 3
- (4) 4

39. Problem Figures.



Answer Figures:



- $(1)_{-1}$
- (2) 2
- (3) 3
- (4) 4

40. Problem Figures



Answer Figures:



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

## Directions: Questions (41 to 50):

In the number series given below, one number is missing. Each series is followed by four alternatives (1), (2), (3), (4). One of them is the right answer. Indicate it as per the instructions.

- 41. 28, 33, 31, 36, \_\_?\_\_, 39
  - (1) 32
- (2) 34
- (3) 38
- (4) 40

- 42. 125, 80, 45, 20, \_\_?
  - (1) 5
- (2) 8
- (3) 10
- (4) 12



- 43. 325, 259, 204, 160, 127, 105, 2
  - (1) 94
- (2) 96
- (3) 98
- (4) 100

- 44. 240, ? . 120, 40, 10, 2
  - (1) 180
- (2) 240
- (3) 420
- (4) 480

- 45. 2, 7, 27, 107, 427. \_ ?
  - (1) 1262
- (2) 1707
- (3) 4027
- (4) 4207

- 46. 45, 54, 47, \_ ? \_, 49, 56, 51, 57, 53
  - (1) 48
- (2) 50
- (3) 55
- (4) None

- 47. 66, 36, 18, \_\_?\_\_
  - (1) 3
- (2) 6
- (3) 8
- (4) 9

- 48. 20. 20. 19, 16, 17, 13, 14, 11, \_\_?\_\_, \_\_?\_\_
  - (1) 10, 10
- (2) 10, 11
- (3) 13, 14
- (4) 13, 16

- 49. 1, 9, 25, 49, 81, ?
  - (1) 100
- (2) 112
- (3) 121
- (4) 125

- 50. 6, 13, 28, 59
  - (i) III
- (2) 113
- (4) 122

#### Directions: Questions (51 to 60):

In these questions, there are equations that have become wrong due to incorrect order of signs. From the four alternatives given below, find out the correct order of signs. So that the equations become correct.

- 51.  $95 \times 24 = 4 1$ 
  - (1) -, -, -
- $(2) = \times, -$
- (3) +,=,
- (4) ÷, ±, =

- 52.  $8 \div 9 = 9 81$ 
  - (1) -, ×, +
- (2) ±, -, ÷
- (3) =, +, =
- (4) ×, +, =

- $53. \quad 40 + 15 = 3 \times 5$ 
  - (1) -, ±, ÷
- (2) ÷, ±, -
- (3) = x -
- (4) ∧, ∀, −

54. 
$$728 = 8 = 13 = 7$$

- $(1) = \pm, \pm, \times$
- $(2) \times, *, -$
- (3) = -, -, +
- (4) +, =, -

#### 55. 16 5-713

- -, +, =
- (2) ÷, -, +
- $(3) +, =, \times$
- (4) ÷, -, -

#### 56. $12 - 8 \pm 6 \pm 576$

- (+)  $\times$   $\times$   $\times$  =
- (2) = x, +
- $(3) \rightarrow , k =$
- (4) -, +, 4

#### 57. $101 + 14 + 7 \div 3$

- (1)  $\times$  =
- (2) = -, +
- $(3) =, \tau, \tau$
- $(4) = -, \times, \perp$

58. 
$$304 \pm 4 - 76 \pm 4$$

- (1) ,  $\div$ ,  $\pm$
- (2) +, =, ×
- (3)  $\div$ , +, -
- (4) -, +, ÷

59. 
$$54 - 5 + 27 \div 10$$

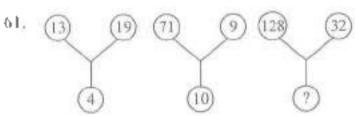
- $(1) = \pm \pm -1$
- $(2) = -, \div, \pm$
- (3) x<sub>\*</sub> = x
- (4) ÷, +, ×

$$60. \quad 30 \div 3 + 9 - 3$$

- (1) = +, 1
- (2)
- (3) +, -, ×
- (4) = ×

#### Directions: Questions (61 to 70):

In each of the following questions, a set of figures carrying certain characters is given. Assuming that the characters in each set follow a similar pattern, find the missing character in each case.



- (1) 10
- 15 (2)
- (3) 20
- (4) 25

62.



- (1) 13
- 15 (2)
- (3) 17
- (4) 19



- (1) 42
- (2) 44
- (3) 46
- (4) 48

64,	42	44	38
	23	55	28
	37	?	39

- (1) 22
- (2) 33
- (3) 66
- (4) 77



- (1) 27
- (2) 35
- (3) 54
- (4) 64

66.



# (I) 190 (2) (221 C) 3( 236 (4) 255

- 67. ? 3 39 9 27
  - (1) 33
- (2) 81
- (3) 243
- (4) 42

68.



- (1) 10
- (2) 12
- (3) 13
- (4) 15

69.



81 18 9

- 88 ? I1
- (l) 16
- (2) 21
- (3) 61
- (4) 81



70. 51 11 61 64 30 32

64	30	32
35	2	43

- (1) 25
- (2) 27
- (3) 18
- (4) 20

#### Directions: Questions (71 to 80):

The following questions are based on simple arithmetic calculations. There are four alternatives given under each question. After identifying the right answer, indicate it as per instructions.

- 71. 47638 + 635 4125 ?
  - (1) 44418
- (2) 41448
- (3) 44158
- (4) 44148

- 72.  $89765 + 3 \cdot 645 1243 + 63 = ?$ 
  - (1) 89743
- (2) 87943
- (3) 87843
- (4) 87743

- $73_{+1} 16 \frac{x}{\sqrt{28}} = \frac{\sqrt{343}}{x}$  then x = ?
  - (1) 98
- (2) 49
- (3) 14
- (4) 24

- 74. 152,435 420.5 + 987.52 9
  - (1) 709.455
- (2) 708.455
- (3) 719.455
- (4) 718.455
- 75. 43 34 assResut.in
  - (1) 67
- (2) 87
- (3) 77
- (4) 107

- $76. -0.007 \times 0.00009 = ?$ 
  - (1) = 0.0063
- (2) = 0.000063
- (3) 0.000000063
- (4) 0.0000063

- 77.  $\sqrt{225} \times 5 + 6 \times 7 2^3 = ?$ 
  - (1) 119
- (2) 109
- (3) 99
- (4) 129

- 78.  $5.12 \pm (0.4 \times 0.8) = ?$ 
  - (1) 6.4
- (2) 164
- (3) 16
- (4) 128

- $79. \quad \frac{5^2 + 12^2}{13} = ?$ 
  - (1) 13
- (2)
- (3) 169
- (4) 17

- 80.  $3^{9} + 1 = 244$ , ? =
  - (1) 5
- (2) 4
- (3) 3
- (4) 2



### Directions: Questions (81 to 90):

In each of the following questions, there are a certain relationship between two given words on one side of : : and one word is given on the another side of : : white another word is to be found from the given 4 alternatives, having the same relation with this word as the words of the given pair. Choose the correct alternatives.

81.	Crio	ket : Runs : :	Foot ball	:?				
	(1)	Points	(2)	Goals	(3)	Penalty	(4)	Left front
82.	Slate	el. State Pene	il : : Bool	c:2				
	(1)	Pen	(2)	Rubber	(3)	Scale	(4)	Stationary
83.	Bon	e : Skelton : :	Blood : 2	)				
	(1)	Eye	(2)	Ear	(3)	Vein	(4)	Skin
84.	Hos	pital : Doctor	; : Schoo	l:?				
		Lesson			(3)	Black Board	(4)	Book
85.	Loc	k : Key : : Cha	air:?					
	(1)	Cup	(2)	Glass	(3)	Plate	(4)	Table
86.	Circ	le : Circumfe	renge;	Square:?		1114		
		Perimeter			(3)	Side	(4)	Length
87.	Vide	en : Cassotte :	: Compu	ter:?				
	(i)	Real	(2)	Recording	(3)	Files	(4)	Floppy
88.	The	rmometer : Te	emperatu.	re : : Hygroms	ter:?			
	(1)	Pressure	(2)	Humidity	(3)	Density	(4)	Relative Density
89.	Bus	: Driver : : Ac	croplane	:7				
	(1)	Pilot	(2)	Wheeler	(3)	Watcher	(4)	None
90.	Jago	gery : Sweet :	: Chilli :	?				
		Sour			(3)	Hot	(4)	Bitter

#### SPACE FOR ROUGH WORK

# ClassResult.in

# ClassResult.in



### Part - II: SCHOLASTIC APTITUDE TEST

Time: 90 Minutes Max. Marks: 90

#### Note:

i) Subject, Question No. and Marks allotted:

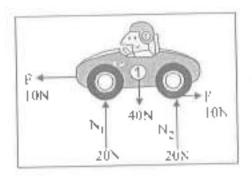
SI. No.	Subject	Question No.	Marks
10	Physics	91 to 102	12
2.	Chemistry	103 to 113	11
3.	Biology	114 to 125	12
4.	Mathematics	126 to 145	20
51	History	146 to 155	10
6.	Geography	156 to 165	10
7.	Political Science	166 to 175	10
8.	Economics	176 to 180	05

(i) SHADE the circle having the correct alternatives in the OMR Answer Sheet provided, from amongst the ones given against the corresponding questions in the Question Paper Booklet. For shading the circles, use a Black Ball Point Pen.

#### PHYSICS

91.

Left side



Right side

Motion of the car in which direction

(1) (owards right

(2) towards left

upwards (3)

car won't move (4)

Mirrors which form only virtual images \_\_\_\_\_

- (1) plane mirror, convex mirror
- (2) concave mirror, plane mirror
- (3) convex mirror, concave mirror
- only concave mirror (4)

The liquid used in six maximum, minimum thermometer is 93.



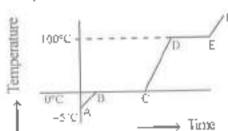
- (b) Mercury
- Alcohol (¢)
- (d) Air
- a and b (1)
- (2) bande
- (3) c and d
- (4) a and d

-5°C ice is heated upto it become vapour 94.

If the observations are plotted in the given below graph. Which parts of the graph represents the process of melting and boiling respectively.



- BC, DE (2)
- CD, DE (3)
- (4) None of the above



95. X: Velocity of a Bus is 72 km/hr

Y: Velocity of a Car is 45 m/sec

Z - A Van travelled 60 km in 40 minutes

If X is the velocity of Bus, Y is velocity of Car, Z is velocity of Van.

(1)  $X \le Y \le Z$ 

(2)  $X \ge Y \le Z$ 

 $(3) \quad X \ge Y \ge Z$ 

 $(4) \quad X \leq Y \geq Z$ 

96. Match the following.

i) Motion of blades of a ceiling fan

ii) Motion of an arrow from a how

iii) Motion of the earth around the sun

iv) Motion of the needle in the clothes stitching machine

(1) i-a ii-b

-b iii-c iv-d

(2) i-a ii-c

iii - b iv - d

(3) i+b

ii - c

iti - d iv - a

(4) i-b

ii - a

iii - d iv - c

a) Oscillatory motion

b) Rotatory motion

c) Translatory motion

d) Translatory and rotatory motion

97. Assertion (A): Electric bulbs in our houses are connected in parallel.

Reason (R): Bulbs glow brighter when they are connected in parallel.

(1) Both (A) and (R) are correct

(2) Both (A) and (R) are incorrect

(3) (A) is correct, (R) is incorrect

(4) (A) is incorrect, (R) is correct

98. Match the following.

i) Humidity

(i) Rainfell

iii) Wind speed

(v) Temperature

(1) i-a it-b iit-d iv-c

(2) i-c ii-b iii-a iv-d

(3) i-c ii-a iii-d iv-b

(4) i-d ii-c iii-b iv-a

a) Rain gauge

b) Six maximum, minimum thermometer

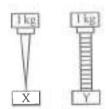
e) Hydrometer

d) Anemometer

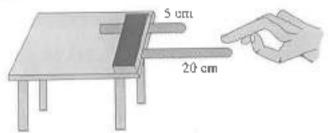


 $99_{\odot}$  X, Y are the objects having same size and made with same material. A nail of 1 kg on X and a seriew of 1 kg on Y are placed on which object the pressure is more

- (I) on X
- (2) on Y
- (3) equal pressure on X and Y
- (4) data is insufficient



100.



Vibrations of hack-saw blades

X is the pitch of the sound produced by the back-saw blade of 20 cm. in Y is the pitch of the sound produced by the hack-saw blade of  $5\,\mathrm{cm}$  in.

- X≥Y
- (2)  $X \le Y$

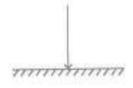


101. Which of the following is incorrect in the case of friction \_\_\_\_\_

- (1) Prictional force is dependent of the area of contact
- (2) Friction is proportional to the normal force
- (3) Priction opposes the relative motion between two surfaces in contact
- (4) Friction depends upon the surfaces which are in contact

102. If the incident ray incident perpendicularly to the plane, then the angle of reflection,

- $(1) 90^{\circ}$
- (2) 180°
- $(3) 0^{\circ}$
- (4) 45°



## CHEMISTRY

103.	(den	tify the wrong sta	itemer	nt.					
	(1)	The mixture of			opper is u	sec	d in the purparat	ion of	feoins.
	(2)	The mixture of	gold a	nd copper	is used in t	the	e preparation of	Jewe	Hery.
	(3)	The mixture of	jron a	nd carbon	is used in t	the	preparation of	steel	
	(4)	The mixture of	alumi	nium and c	arbon is u	5CK	f in the preparat	to noi:	statues,
104.	Bys	prinkling small q	uantit	iesof	in v	wal	ter will prevent	brówn	ring of vegetables
	after	cutting.							
	a)	Vinegar			b)		Lemon Juice		
	¢)	Ascorbic acid			d)		Nitrie acid		
	(1)	a, b, c	(2)	b, c, d	(3)	l	a, ¢, d	(4)	a, b, d
105.	Mate	ch the following.							
	i)	$\wedge$			a)		Wash		
	,								
	ji)				b)		Bleach		
	iii)	$\leftarrow$			U)		lron		
	iv)	$\otimes$			d)		Do not bleach		
				- J			14		
	(I)	1 - 8	111	e jv-d a jv-d d jv-a			sult		
	(2)	1-0		a IV u			SUIL		
	(3)	i-a ii-b	()i -						
	(4)				. t 2. D				
106.		ose the correct st						- J T	1/1 (1-22-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-
	a)								When it comes on
							chemical char		
	b)	The burning of	gas ci	ajne from t	ne cynnoe	#C L	s a enamiciii en	KURE.	al allementos
	c)						ogas. This is a p	nysica	u change.
	d)	The biogas bur	nt ពន្ធ ម	fuel is a cl	hemical ob	ап			
	(1)	a, b, d	(2)	a, b, c	(3)	)_	b, c, d	(4)	a, c, d
107.	. For	acidity problem	doctor	s prescrib	e antacid d	lru	gs which contai	in	
	a)	Magnesium hy-			b)		Sodium acetate		
	e)	Vinegar			d)		Aluminium hy-	droxid	le
	(i)	a and b	(2)	b and e	(3	)	c and d	(4)	a and d
108	. Am	ong the followin	g whic	ch can not l	be recycles	ď			
		PET	_	HDPE	(3		PS	(4)	LDPU

- 109. Match the following.
  - i) Removing of grease, oil stains
  - ii) Fire extinguisher
  - iii) Removal of ink stains
  - iv) Cool drinks
  - (1) i-a ii-b iii-c iv-d
  - (2) i-b ii-a iii-d iv-c
  - (3) i-c ii-a iii-b iv-d
  - (4) i-a ii-b iii-d iv-c

- a) Aluminium hydroxide
- b) Oxalic acid
- c) Ammonium hydroxide
- d) Carbonic acid

110.		Methyl orange	Phenolphthalein	Turmeric solution	
	Lemen Juice	red	colourless	Z	
	Detergent soap water	yellow	Y	Red	
	Distilled water	X	colourless	yellow	

The colours X, Y, Z are

- (1) red, colourless, red
- (3) vellow, pink, vellow

- (2) yellow, colourless, pink
- (4) red, pink, red



Due to release of \_\_\_\_\_gas lime water turned milky white. The milky white substance contains \_\_\_\_\_

- (1) oxygen, calcium oxide
- (2) flydrogen, calcium carbonate
- (3) Carbon dioxide, calcium carbonate
- (4) Oxygen, calcium carbonate
- 112. P: Thermoplastics soften when heated.
  - Q: Thermosetting plastics which moulded once can't be softened by heating,
  - (1) P is correct, Q is incorrect
- (2) P and Q are incorrect
- (3) P is incorrect, Q is correct
- (4) P and Q are correct
- 113. Arrange the metals copper, iron. Zinc in descending order according to their reactivity
  - (1) Zinc, Iron, Copper

(2) Iron, Zinc, Copper

(3) Copper, Zinc, Iron

(4) Zine, Copper, Iron

## BIOLOGY

[[4.	Which of the following plant product (1) Litly (2) Dahlia	es new plant (3)	from the epiphyl Strawberry	lous bud (4) E	ds (Leaf buds). Bignonia
115.	Match the following.  i) Gilebi  ii) Portification of drainage water  iii) Harness  iv) Parasitic plant  v) Cercospora  (1) i - d ii - e iii - c iv - b  (2) i - c ii - b iii - d iv - a  (3) i - a ii - c iii - b iv - d  (4) i - d ii - e iii - b iv - c		Fungos Loom Haustoria Yeast Bar screen		
116.	Identify the correct statements from  a) Gascous exchange in plants och  b) Insectivorous plants grow only  (1) a is true  b is also true  (2) a is false  b is true  (3) a is true  b is false  (4) a is false  b is also false	curs only the in Nitrogen	ough stomata. deficient soils.	.ir	
118	Pat is  (1) a type of silk available in North (2) a type of silk available in West (3) a type of silk available in Easte (4) a type of silk available in South This cell organette can be recognise (1) Nucleolus (2) Cell wall During the confirmation of presence	ern India rn India sern India d by using M I (3)	Nucleus	(4)	Cytoplasm oured substance
112	is formed when it is treated with co- of this compound	pper sulphat	e solution. This	determi	nes the presence Vitamins
120	Which of the following bases is use (1) Alluminium hydroxide (3) Calcium hydroxide	(2)	tinguisher? Ammonium hy Potassium hyd		



, 417	L11 M.L.	(2)									
171	Mate	h the fo	llowing.								
<b>1</b> 4 1 .	i)	Tie and	_				a)	Emotions			
	ii)		is thurin;	piensis			b)	Scabies			
			annmerda	_			c)	Jamadani			
				3813			d)	Observation and description of micr			
	iv)	Adrina	.11111				ш)	organisms	and des	or percon s	
	v)	Micro	Arthrope	oda			e)	Bio pesticido	;		
	(1)	i - d	ii-e	iii - b	iv - a	$V \in \mathcal{C}$					
				ili - d							
				iji - e							
				iii - a							
122.	Amo	ount of s	solar ene	rgy utilis	sed for p	urpose	s of (	Global heat, ev	aporatio	on of wate	er on the
	earth										
	(1)	35%		(2) - 8	3%		(3)	80-85%	(4)	50%	
123.	Whi	ch of th	e follow	ing state	ments is	incon	rect?				
	(1)			are the c				e India.			
	(2)	The D	eccan w	ingless g	rasshop	per is s	сеп о	mly in the Rabi	i season.		
	(3)	Menst	rual cycl	le in wor	nan stop	s at the	age	of 45-50.			
	(4)	Louis	Pasteur	discover	ed the o	ontroll	ing m	easures for mi	crobial (	diseases c	aused to
			k moth.								
124.				00			10	7111			
J Z T											

The given organism in the above picture is a type of

- (1) Bacterium
- (2) Protozoa
- (3) Fungus
- (4) Algae

125. If Zygote denotes 'O'

Seed denotes ' / \_ \*

New plants denotes '[\_]'

Identify the sequential order of formation.











#### MATHEMATICS

126. 
$$\sqrt{\frac{0.85 \times (0.105 + 0.024 - 0.008)}{0.022 \times 0.25 \times 1.7}}$$

- (1)  $\sqrt{1.1}$
- (2) 11
- (3)  $\sqrt{11}$
- (4)  $\sqrt{0.11}$
- 127. The ratio of the present ages of two brothers is 1:2 and 5 years back the ratio was 1:3, what will be the ratio of their ages after 5 years
  - (1) 1:4
- (2) 2:3
- (3) 3:5
- (4) 5:6
- 128. A single discount equivalent to two successive discounts of 20% and 5% is
  - (1) 25%
- (2) 24%
- (3) 23%
- (4) 26%
- 129. Two numbers A and B are such that the sum of 5% of A and 4% of B is two-third of the sum of 6% of A and 8% of B, the ratio of A:B is
  - (1) 2:3
- (2) 1:1
- (3) 3:4
- (4) 4:3

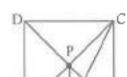
130. If 
$$y + \frac{1}{y} = -2$$
 then  $y^{50} - \frac{1}{y^{50}} =$ 







- 131. In the adjacent figure ABCD is a square of side 8 cm and PM ± AB, the length of MC =
  - (1) 5√5 cm
  - (2)  $6\sqrt{5}$  cm
  - (3)  $4\sqrt{5}$  cm
  - (4)  $7\sqrt{5}$  cm



- 132. If  $\frac{Px}{(b-c)} = \frac{Qy}{(c-a)} = \frac{Rz}{(a-b)}$ , then Pax + Qby + Rcz =
  - (1) P + Q + R (2) x + y + z (3) a + b + c
- (4) = 0



133. Statement (A):  $(1024)^{3.4} = 16$ 

Statement (B):  $(16)^{1.25} = 32$ 

- (1) Both the statements (A) and (B) are correct
- Both the statements (A) and (B) are incorrect
- (3) (A) is correct. (B) is incorrect
- (4) (A) is incorrect, (B) is correct
- 134. If  $x = (-1)^1 + (-1)^2 + ... + (-1)^{2019}$  and

$$y = (-1)^{1} - (-1)^{2} + ... + (-1)^{2019}$$
 then  $x - y$  is

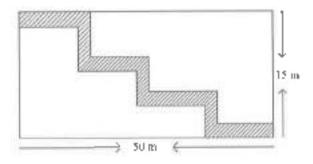
- (1) 2019
- (2) 2018
- (3) = 0
- (4) 1014

- 135. If  $\frac{a}{b} = \frac{x}{v} = \frac{p}{a}$  then  $\frac{6a + 9x + 2p}{6b + 9y + 2a} =$
- $(1) \quad \frac{a}{b} \qquad \qquad (2) \quad \frac{x}{y} \qquad \qquad (3) \quad \frac{p}{q}$
- (4) All of these
- 136. If  $7^{a^0} = 2401$  where a and b are positive integers and  $a \neq 1$ , then which of the following is (are) correct?
- - (1) Fither lor III

(2) Either II or III

(3) Either [ or II

- (4) I only
- 137. Find the total cost of levelling the shaded path of uniform width 2 m laid in the rectangular field shown below, if the rate per m<sup>2</sup> is ₹ 100



- (1) ₹ 12600
- ₹ 16200 (2)
- (3) ₹ 13000
- (4) ₹ 12000



- 138. Which of the following is a solution of  $\frac{2x-5}{2} > \frac{3x+3}{4}$ ?
  - (1) x = -5

(2) x = -2

(3) both (1) and (2)

- (4) neither (1) nor (2)
- 139. The mean of a, b and c is same as the mean of b, 2c and d then which of the following is correct?
  - (1) a = b = c
- (2) b = c = d (3) b = c
- (4) a = c + d

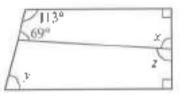
- 140. If  $a = \frac{2x-1}{3}$ ,  $b = \frac{7-3x}{4}$  and  $\frac{a-b}{5} = 1$  then  $x = \frac{1}{3}$ 
  - (1) 2
- (2) 4
- (3)
- (4) 3

- 14]. The value of  $3^{2^{4^{5^{2}}}} + 8^{3^{2^{4^{3}}}} =$ 
  - (i) 512
- 125 (3)
- 142. The following are the steps involved in finding the values of  $\left(a^{x+y}\right)^{x-y}\left(a^{y+z}\right)^{y-z}\left(a^{z+x}\right)^{z-x}$

Arrange them in sequential order

- $a^{(x-y)(x-y)}a^{(y+z)(y-z)}a^{(z+z)(z-x)}$
- b)  $a^{0} = 1$
- c)  $a^{x^2-y!} \cdot a^{y^2-z^2} a^{x^2-x^2}$ (1) a, d, c, b (2) a, c, b, d

- 143. The values of x, y and z in the adjacent diagram
  - (1)  $x = 88^{\circ}, y = 67^{\circ}, z = 92^{\circ}$
  - (2)  $x = 92^{\circ}, y = 88^{\circ}, z = 67^{\circ}$
  - (3)  $x = 67^{\circ}, y = 92^{\circ}, z = 88^{\circ}$
  - (4)  $x = 88^{\circ}, y = 92^{\circ}, z = 67^{\circ}$



- 144. Each side of a triangle is increased by 10 cm. If the ratio of the perimeters of the new triangle and the given triangle is 5:4, the perimeter of the given triangle
  - (1) 110 cm
- 120 cm (2)
- (3)100 cm
- 90 cm

- $145. \sqrt[3]{\frac{3^6 \times 4^7 \times 2^9}{8^6 \times 2^6}} =$ 
  - $(1) 1\frac{1}{8}$
- (2)  $\frac{3}{8}$
- (3)  $-1\frac{1}{3}$
- $(4) = \frac{3}{4}$

## HISTORY

147. The Second World War was broke out in (1) 1914 (2) 1924 (3) 1939 (4) 1929  148. Name the following coastal district in given Map. (1) Guntur	
Maria Caracteria de Caracteria	
Maria Caracteria de Caracteria	
(2) Krishna S	
(3) Prakasem	
(4) Visakhapatnam	
149. Match the following.	
i) Mansabdar a) Heroditagy chief	
ii) Akbar b) Revenue assignment	
iii) Jagirdar e) Sulh-i-Kul iio Zamindar d) Rank	
(v) Zantindar	
(1) 1-9 11-1 11-1	
(2) i-a ii-b iii-d iv-c (3) i-a ii-d iii-c iv-b	
(4) 1-6 ii - c iii - d iv - a	
150. Which part of an inscription is called 'Prashasti'	
(1) invocation part (2) half-a-part	
(3) Third part (4) End of the part	
151. Kitab-Al-Hind the arabic book was written by	
(1) Al-Biruni (2) Paes	
(3) Marco Polo (4) Abdul Razzak	
152. In 1190 AD a New Kingdom was established in Delhi by	
$\sim$	
(1) Ingride (1) Strings (2)	
153. Sri Krishnadevaraya ruled from (1) 1336 AD - 1357 AD (2) 1529 AD - 1542 AD	
(1) 1500 AD 1500 AD	
(3) 1303 ND 101112	
154. The first Mughal emperor was  (2) Alchor (3) Humayun (4) Shahjah	22
(1) Babur (2) Akbar (3) Humayun (4) Shahjah	(U)
155. Who constructed the Qutub Minar	
(1) Qutbuddin Aibak (2) Babur	
(3) Humayun (4) Akbar	

#### GEOGRAPHY

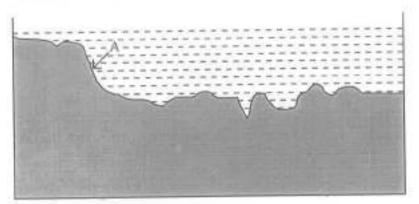
- 156. There are two main groups referred to as Eskimos: Innit and Yupik, 'Innit' in their language means
  - the people A)
  - the originates B)
  - Snow shoe-netter C
  - (1) (A) only.

(2) (B) only.

(3) (C) only

(4) (A) and (B) only.

157.



Relief features of an Ocean

In this picture 'A' refers to

- Result.in
- (2)
- (3) Continental shelf
- (4) Continental slope
- 158. The angle at which the rays fall on the earth's surface is called
  - insolation (1)

(2) solar radiation

(3) carth radiation

- angle of incidence (4)
- 159. Conventional symbols are used in the "Topo sheets" of survey of India. "∑" this conventional symbol indicates
  - hut
- (2) deserted fort
- (3)tank
- Broken ground

- 160. 'Pine' forests usually found in this region
  - (1) Equatorial region

- (2)Himalayas
- (3) Coastal Andhra Pradesh
- (4)Rayalaseema



161.		iighest peak in A Tanzania		is Mount Kilir Egypl	nanjaro ir (3)	n Ethiopia	(4)	Nigeria
					Inwine is	The correct sea	auence	of the given rivers
162.		Norun to South ' Nagavali	WILLON	TOTIC OF THE TOT	10 11 11 13		-	
	A) B)	Vamsadhara						
	C)	Godavari						
	D)	Krishna						
	(I)	A,B.C,D	(2)	B, A, C, D	(3)	A, B, D, C	(4)	B,A,D,C
163.	A)	It is a shiny mir	era!		8)	It is used in e	dectrica	! industry
	(C)	It comes in thin		rs	D)	It is a non-co	onducto:	r of electricity
		above statement			mineral			
	(1)	Bauxite	(2)		(3)	Ashestos	(4)	Feldspar
164.	Mate	ch the following.						
	i)	June 21			a)	Sun on the E	-	
	ii)	March 21			ь)	Sun on the E	-	
	iii)	December 22			¢}	Sun on the T		
	iv)	September 23			d)	Sun on the T	ropic of	Capricom
	(1)	i-e ji-a	iii -	d iv-b		s i i l4		
	(2)	i-a li-c	jiii •	d iv-b		sult		
	(3)	i-a ii-b	iii -	d iv-c				• •
	(4)	i - e ii - b	iii -					
165	. Mr.	Ravi wants to kn	ow th	c boundary of	Andhra P	radesh, Which	r of the f	following map does
	help	him?						
	A)	India - Politica	dimag	,				
	B)	India - Physica	d map	)				
	$\mathbb{C}$ )	India - Contou	rline	з тар				
	(E)	(A) only			(2)			
	(3)	(C) only			(4)	(B) and (C)	only	

## POLITICAL SCIENCE

166.	The	Governo	nr of the	State is a	ppointe	l by		
	(1)	Prime	rime Minister				(2)	Cluef Minister
	(3)	Preside	ent				(4)	Chief Justice of Supreme Court
167.	The	first Uni	on Law	Minister	of Indep	ender	ı( Indi	ia is
	(1)	Dr. B.R	t. Ambed	lkar			(2)	Smt. Vijaya Lakshmi Pandit
	(3)	Sardar	Vallabhb	hai Patel	l		(4)	Subhash Chandra Bose
168.	The	constitu	tion of h	ndia entr	usted the	e resp	onsibi	ility of conducting elections in India to
	(1)		preme C					
	(2)	The Ele	ection C	ommissi	QII)			
	(3)	Central	l Govern	ment -				
	(4)	The Sta	ate Gove	rnment				
169.	Mate	ch the fo	llowing.					
	i)	Sovere	ign			a)	Cov	rernment will not favour any religion
	ii)	-					Pco	ple have the supreme right to make
							deci	isions
	iii)	Fratern	nity	00		c)	Hea	d of the State is an elected person
	iv)	Secula	d	50		d)	Peop	ple should live like brothers and sisters
	(1)	j • b	ii - c	iii - d	iv - a			
	(2)	i - a	ii - d	iii - b	iv-e			
	(3)	i - c	ii - b	iil - a	iv - d			
	(4)	i - d	ii - c	iii - b	iv-a			
170.	polin In or cont this cont dem	tics we van social inte to define of common life occasions which is the manual occasions occasions occasions and the manual occasions oc	vill be re land eco deny the outradic	cognisir nomic li principl tions? H continue is it hiji	ig the pri fe, we sh e of one ow long	inciple (all, by man c (shall)	of of or y reasone va we con	I economic life we will have inequality, In ne man one vote and one vote one value, son of our social and economic structure, alue. How long shall we continue to live ontinue to deny equality in our social and we will do so only by putting our political Dr. B.R. Ambedkar  Dr. Babu Rajendra Prasad

(1) Pochamma

(3) Gangamma



171.	In India any law relating to Money and Banking can only be made by							
	(1)	Parliament Parliament						
	(2) Reserve Bank of India							
	(3)	Election Commission of India						
	(4)	World Bank						
172.	Government of Andhra Pradesh enacted the Andhra Pradesh water. Land and Trees Protection Act in							
	(1)	1902	(2)	1985				
	(3)	1990	(4)	2002				
173.	The drafting committee chair person of the Indian Constitution is							
	(1)	Dr. B.R. Ambedkar	(2)	Dr. Babu Rajendra Prasad				
	(3)	Dr. Zaker Hussen	(4)	Dr. Farukh Abdullah				
174.	Who is the following person is most known for his efforts to educate women and lowe eastes as well as the masses							
	(1)	Savitribai Phule						
	(2)	Periyar E. V. Rama Swami						
	(3)	(3) Sri Narayana Guru						
	(4)	Jyotirao Govindrao Phule	Δ	ault in				
175.	The	e most popular folk goddess of Andh	ra Prades	aris Communication of the comm				

(2) Maisamma

(4) Yellamma



## **ECONOMICS**

176.	Hec	He devised a method of laying road using broken stones.							
	(1)	Boulton		(2)	George Suphens	ion			
	(3)	John Loudon Mc Ada	ith	(4)	James Watt				
177.	Arra	Arrange the following stages of paper-making process in correct order.							
	A)	Cutting							
	B)	Pressing, drying and	rolling						
	C)	Chipping							
	D)	Spreading the pulp							
	E)	Making of wood pulp	)						
	(1)	C.E.D.B.A		(2)	A, B, C, D, E				
	(3)	C, D, B, E, A		(4)	A,E,D,B,C				
178.	In th	In the Mauryan Period "Pana" was the standard currency. It was made of							
	(1)	Gold		(2)	Silver				
	(3)	Вголие		(4)	Copper				
179.	Hen	Henry Ford started this method of production to produce more cars quickly.							
	(I)	Combined Harvester	SKE	(2)	Assembly line				
	(3)	Barter system		(4)	Factory system				
180.	ln w	In which position India is the largest producer of medicines in the world.							
	(1)	1 <sup>st</sup> (2)	2 <sup>nd</sup>	(3)	3rd	(4) 4 <sup>th</sup>			

# ClassResult.in