

# SRIGAYATRI EDUCATIONAL INSTITUTIONS

ANDHRAPRADESH

Time: 3 hours

CLASS – X (NTSE)

Max. Marks: 200

- Read the following instructions carefully before answering.  
➤ The question paper contains questions numbered 001 to 200.

<b>Mental Ability</b>	<b>001 to 100</b>
<b>Mathematics</b>	<b>101 to 120</b>
<b>Physics</b>	<b>121 to 134</b>
<b>Chemistry</b>	<b>135 to 147</b>
<b>Biology</b>	<b>148 to 160</b>
<b>Social Studies</b>	<b>161 to 200</b>

- All questions are multiple choice questions with single right answer.  
➤ Mark all the answers on the OMR Sheet given to you.  
➤ Each question carries one mark.  
➤ Read the instructions given on the OMR sheet before you bubble the answers.

## MENTAL ABILITY TEST

**I. Choose the correct alternative that will continue the same pattern in the given series.**

1. 3, 4, 7, 7, 13, 13, 21, 22, 31, 34, ?  
(A)42 (B)43  
(C)51 (D)52
2. 198, 194, 185, 169, ?  
(A)92 (B)112  
(C)136 (D)144

3. 2, 3, 5, 7, 11, ?, 17  
 (A) 12 (B) 13  
 (C) 14 (D) 15
4. 6, 12, 21, ?, 48  
 (A) 33 (B) 38  
 (C) 40 (D) 45
5. Which term of the series 5, 10, 20, 40, ..... is 1280?  
 (A) 10th  
 (B) 9th  
 (C) 8th  
 (D) None of these
6. In the series 3, 9, 15, ..... what will be the 21st term?  
 (A) 117 (B) 121  
 (C) 123 (D) 129
7. 20, 20, 19, 16, 17, 13, 14, 11, ?, ?  
 (A) 10, 10  
 (B) 10, 11  
 (C) 13, 14  
 (D) 13, 16
8. 2, 15, 4, 12, 6, 7, ?, ?  
 (A) 8, 8  
 (B) 8, 0  
 (C) 3, 8  
 (D) 8, 2
9. 7, 26, 63, 124, 215, 342, ?  
 (A) 391 (B) 421  
 (C) 481 (D) 511
10. \_ \_ aba \_ \_ ba \_ ab  
 (A) abbba (B) abbab  
 (C) baabb (D) bbaba
11. c \_ bbb \_ \_ abbbb \_ abbb \_  
 (A) aabcb (B) abccb  
 (C) abacb (D) baebb

**Direction: In each of the following questions find out the alternative which will replace the question mark**

12. College : Student :: Hospital : ?  
 A. Nurse B. Doctor  
 C. Treatment D. Patient

13. Tree : Forest :: Grass : ?  
 A.Lawn  
 C.Park  
 B.Garden  
 D.Field
14. South : North-West :: West : ?  
 A.North  
 C.North-East  
 B.South-West  
 D.East
15. Cloth : Mill :: Newspaper : ?  
 A.Editor  
 C.Paper  
 B.Reader  
 D.Press
16. Country : President :: State : ?  
 A.Governor  
 C.Legislator  
 B.M.P  
 D.Minister
17. KeaC : CaeK :: XgmF : ?  
 A.GmcF  
 C.EgmX  
 B.FmgX  
 D.EmgF
18. Glove : Hand  
 A.Neck : Collar  
 C.Socks : Feet  
 B.Tie : Shirt  
 D.Coat : Pocket
19. Lawyer : Court  
 A.Chemist : Laboratory  
 C.Labour : Factory  
 B.Businessman : Office  
 D.Athlete : Olympics
20. Letter : Word  
 A.Page : Book  
 C.Club : People  
 B.Product : Factory  
 D.Home work : School

**Direction: Detect the coding pattern/rule and answer the questions accordingly.**

21. ROAST: PQYUR::SLOPPY:?  
 (A) MRNAQN (B) NRMNQA (C) QNMRNA (D) RANNMQ
22. In a certain code language, BEAT is written as YVZG, then what will be the code of MILD ?  
 (A) ONRW (B) NOWR (C) ONWR (D) NROW
23. If HEALTH is written as GSKZDG, then how will NORTH be written in that code?  
 (A) OPSUI (B) GSQNM (C) FRPML (D) IUSPO
24. SPIDER: PSDIRE:: COMMON: ?  
 (A) OCOMMO (B) OCMMNNO (C) OCMOMN (D) OCMMON
25. COMPATIBLE: BQNPDDKAHS:: STABILISED: ?  
 (A) TUBCJCDRHK (B) JCBUTEDTHM (C) JCBUTCDRHK (D) JCBUTEFTJM
26. STREAMLING: CGTVUHOJMN :: PERIODICAL: ?

- (A) PJSFQMBDJE (B) PJSFQMNBJE (C) QKTGRMBDJE (D) QKTGRMCEKF
27. BOARD: EQBNC: : CLIMB: ?  
(A) CLJKD (B) DKJLF (C) DNHMB (D) FNJRO
28. CREATIVE: BDSBFUJS :: TRIANGLE: ?  
(A) BHSSFHKM (B) BHSSMHFF (C) BSHSFHKM (D) BSSHFMKH
29. In a certain code, STOVE is written as FNBLK, then how will VOTES be written in the same code?  
(A) FLKBN (B) LBNKF (C) LKNBF (D) LNBKF
30. If in a code language, ORGANISATION is written as CBDWLQJWYQCL and OPERATION is written as CXFBWYQCL, then how is SEPARATION coded ?  
(A) EJXEBEYQCL (B) JFQYWBCXQL (C) JFXWBWYQCL (D) QCLYWBFXJE
31. In a code language, TUTORIAL is written as DODNGLCF and DANCE is written as YCJMZ, how can EDUCATION be written in that code?  
(A) ZYMODCLNJ (B) ZYOMCDLNJ (C) ZYOMDCLNJ (D) ZYOTNLCMD
32. If 'rat' is called 'dog', 'dog' is called 'mongoose', 'mongoose' is called 'lion', 'lion' is called 'snake' and 'snake' is called 'elephant', which is reared as pet?  
(A) Rat (B) Dog (C) Mongoose (D) Lion (E) Elephant
33. If 'blue' means 'green', 'green' means 'white', 'white' means 'yellow', 'yellow' means 'black', 'black' means 'red' and 'red' means 'brown', then what is the colour of milk?  
(A) Black (B) Brown (C) Blue (D) Yellow (E) Green
34. If 'paper' is called 'wood', 'wood' is called 'straw', 'straw' is called 'grass', 'grass' is called 'rubber' and 'rubber' is called 'cloth', what is the furniture made up of ?  
(A) Paper (B) Wood (C) Straw (D) Grass (E) Cloth

**Direction: Each of the following questions has a group. Find out which one of the given alternatives will be another member of the group or of that class.**

35. Apple, Grape, Orange  
(A) Vegetable (B) Fruits  
(C) Stems (D) Oats
36. Lucknow, Patna, Bhopal, Jaipur  
(A) Shimla (B) Mysore  
(C) Pune (D) Indore
37. Lock, Shut, Fasten  
(A) Window (B) Door  
(C) Iron (D) Block
38. Wheat, Barley, Rice  
(A) Food (B) Agriculture  
(C) Farm (D) Gram
39. Tamilian, Gujarati, Punjabi  
(A) Aryan (B) Dravidan

(C)Indian

(D)Barbarian

**Direction: Choose the word which is different from the rest.**

40. (A) Gangtok (B) Singhbhum  
(C) Hyderabad (D) Chennai  
(E) Bhubaneshwar
41. (A) Tomato (B) Carrot  
(C) Ginger (D) Potato  
(E) Turmeric
42. (A) Nanak (B) Christ  
(C) Buddha (D) Gandhi  
(E) Mahavira
43. (A) Coarse (B) Unrefined  
(C) Vulgar (D) Oafish  
(E) Blunt
44. (A) Seal (B) Scorpion  
(C) Fish (D) Lion
45. (A) Teach (B) Instruct  
(C) Educate (D) Explain
46. (A) Gallon (B) Ton  
(C) Quintal (D) Kilogram
47. (A) Hypothesis (B) Assumption  
(C) Observation (D) Experiment

**Directions: (Q. No.48 to 50) Select the pair in which the numbers are similarly related as in the given pairs:**

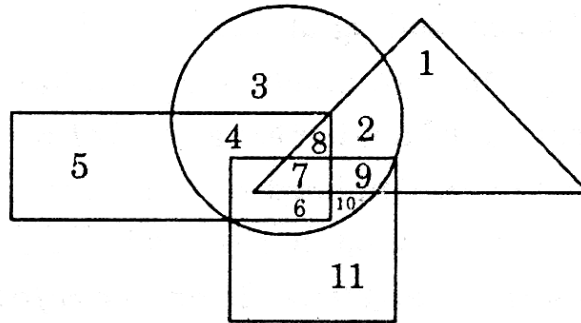
48. 13:169  
(A) 22:484 (B) 20:440 (C) 15:135 (D) 10:140
49. 14:2  
(A) 21:3 (B) 24:3 (C) 27:3 (D) 30:3
50. 2:1113  
(A) 2:3333 (B) 3:1114 (C) 4:1113 (D) 5:1114
51. If ACNE can be coded as 3, 7, 29, 11, then BOIL will be coded as  
(A) 5, 29, 19, 27 (B) 5, 29, 19, 25 (C) 5, 31, 21, 25 (D) 5, 31, 19, 25
52. If REASON is coded as 5 and BELIEVED as 7, then what is the code for GOVERNEMENT?  
(A) 6 (B) 8 (C) 9 (D) 10

**Directions: Each of the following questions is based on, the following alphabet – series:**

**ABCDEFGHIJKLMNOPQRSTUVWXYZ**

53. Which letter is the alphabet is as far from G as T is from M?  
 (A) M (B) N (C) Q (D) P
54. If the above alphabet are divided into two equal halves-from A to M and N to Z, which letter in the later half would be corresponding to the letter J?  
 (A) Q (B) V (C) X (D) W (E) None
55. Which of the following is the twelfth letter to the left of the seventeenth letter from the left end?  
 (A) E (B) F (C) G (D) T (E) None

**Directions: In the following figure, rectangle, square, circle and triangle represent the regions of wheat, gram, maize and rice cultivation respectively. On the basis of the above figure, answer the following questions.**



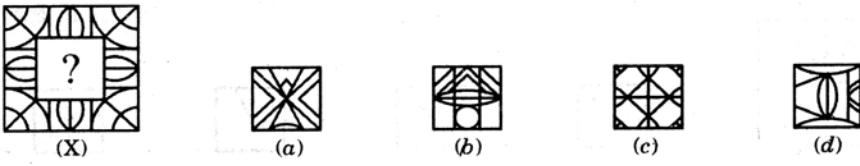
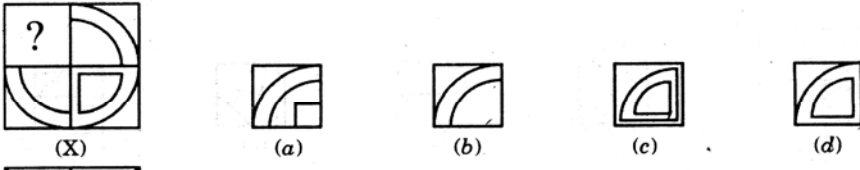
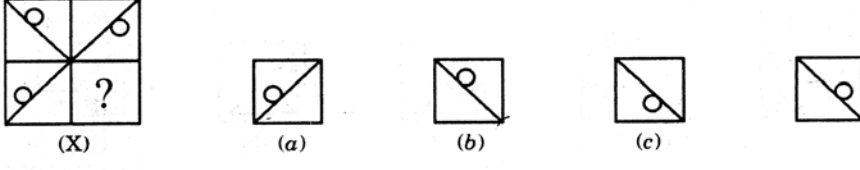
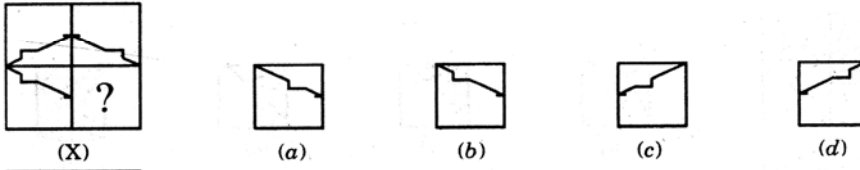
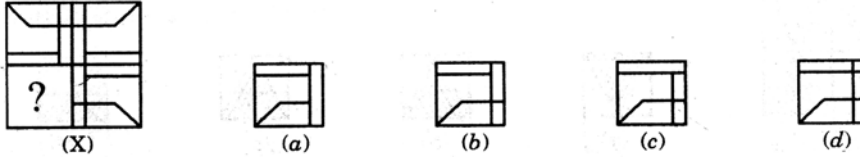
56. Which area is cultivated by all the four commodities?  
 (A) 7 (B) 8 (C) 9 (D) 2
57. Which area is cultivated by wheat and maize only?  
 (A) 8 (B) 6 (C) 5 (D) 4
58. Which area is cultivated by rice only?  
 (A) 5 (B) 1 (C) 2 (D) 11
59. Which area is cultivated by maize only?  
 (A) 10 (B) 2 (C) 3 (D) 4
60. Which area is cultivated by rice and maize and nothing else?  
 (A) 9 (B) 8 (C) 2 (D) 7

**Direction: Choose the correct alternative in the given relationship**

61. 'College' is related to 'Teachers' in the same way as 'Hospital' is related to:  
 (A) Doctors (B) Patients  
 (C) Medicine (D) Beds
62. 'Jade' is related to 'Green' in the same way as 'Garnet' is related to:  
 (A) Red (B) Blue  
 (C) Orange (D) Yellow

63. 'Table' is related to 'Wood' in the same way as 'Shirt' is related to:  
 (A) Cotton (B) Cloth  
 (C) Dress (D) Uniform
64. 'Jackal' is related to 'Howl' in the same way as 'Cow' is related to:  
 (A) Caws (B) Hoot  
 (C) Coo (D) Moo

**Directions: Complete the incomplete patterns.**

65. 
66. 
67. 
68. 
69. 

Directions: Select a suitable figure from the answer set which will continue the series

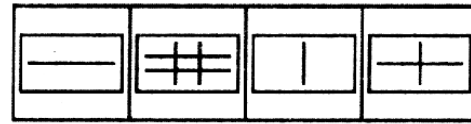
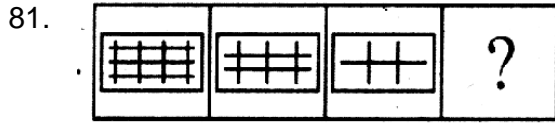
	PROBLEM FIGURES				ANSWER FIGURES					
70.			?							
	A	B	C	D	1	2	3	4	5	
71.			?							
	A	B	C	D	1	2	3	4	5	
72.			?							
	A	B	C	D	1	2	3	4	5	
73.			?							
	A	B	C	D	E	1	2	3	4	5
74.			?							
	A	B	C	D	E	1	2	3	4	5
75.			?							
	A	B	C	D	E	1	2	3	4	5
76.			?							
	A	B	C	D	E	1	2	3	4	5
77.			?							
	A	B	C	D	E	1	2	3	4	5
78.			?							
	A	B	C	D	E	1	2	3	4	5
79.			?							
	A	B	C	D	E	1	2	3	4	5
80.			?							
	A	B	C	D	E	1	2	3	4	5



Direction: Establish a similar relationship between C and D by selecting a suitable figure from the answer set that would replace the question mark.

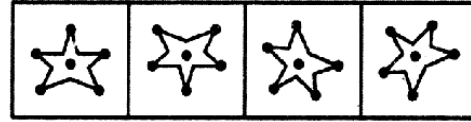
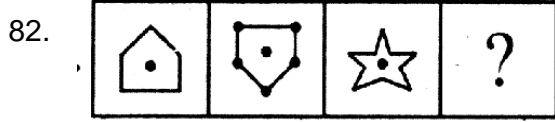
**PROBLEM FIGURES**

**ANSWER FIGURES**



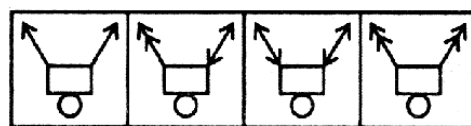
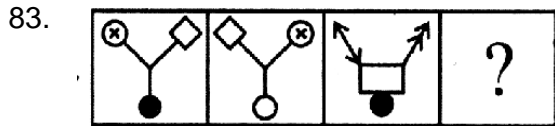
A B C D

(a) (b) (c) (d)



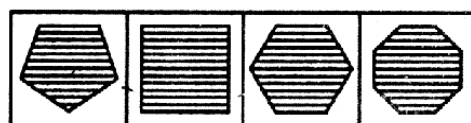
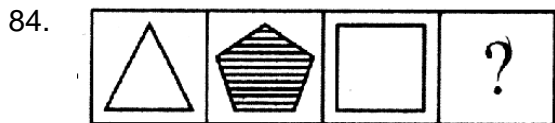
A B C D

(a) (b) (c) (d)



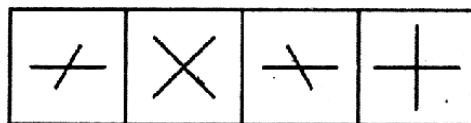
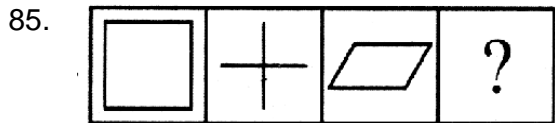
A B C D

(a) (b) (c) (d)



A B C D

(a) (b) (c) (d)



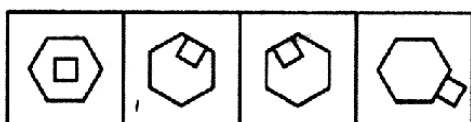
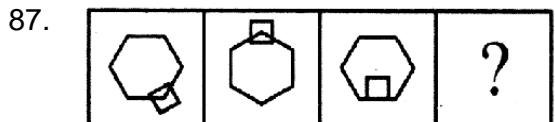
A B C D

(a) (b) (c) (d)



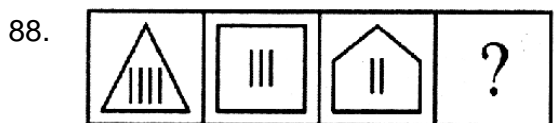
A B C D

(a) (b) (c) (d)



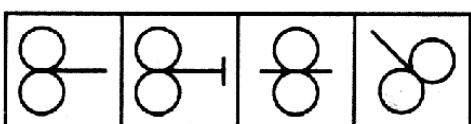
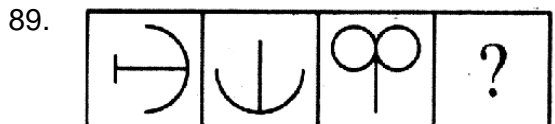
A B C D

(a) (b) (c) (d)



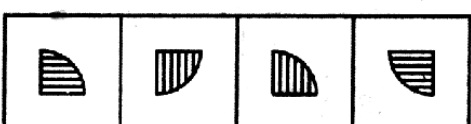
A B C D

(a) (b) (c) (d)



A B C D

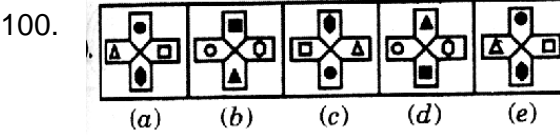
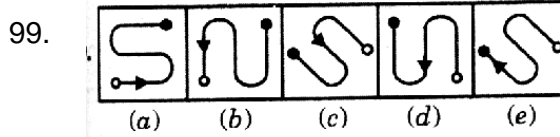
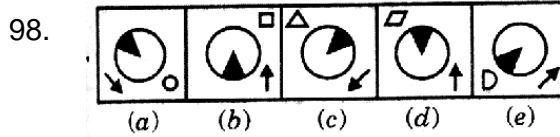
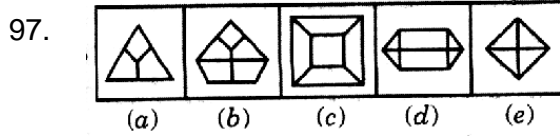
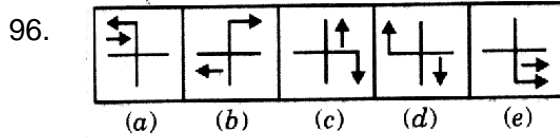
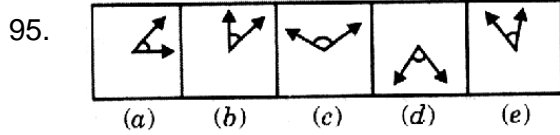
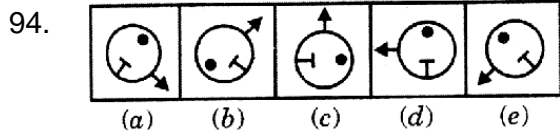
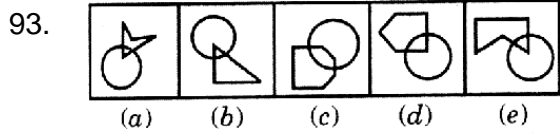
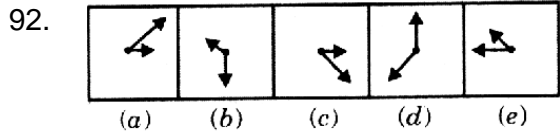
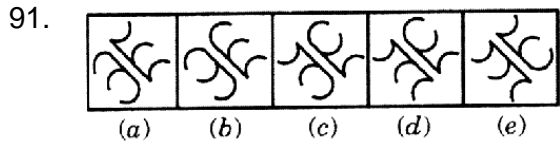
(a) (b) (c) (d)



A B C D

(a) (b) (c) (d)

Directions: Choose the figure which is different from the rest.



**MATHEMATICS**

101. If  $\operatorname{cosec}(A - B) = 1$  and  $\sec B = 2$  then  $\cos A =$  \_\_\_\_\_

- (A)  $\frac{1}{2}$                       (B)  $\frac{\sqrt{3}}{2}$                       (C)  $-\frac{1}{2}$                       (D)  $-\frac{\sqrt{3}}{2}$

102.  $\tan^2 20^\circ - \operatorname{cosec}^2 110^\circ =$  \_\_\_\_\_

- (A) 0                      (B) -1                      (C) 1                      (D) None

103.  $72^\circ =$  \_\_\_\_\_ radians

- (A)  $\frac{2\pi}{5}$                       (B)  $\frac{2\pi}{3}$                       (C)  $\frac{3\pi}{4}$                       (D)  $\frac{\pi}{5}$
104.  $\sin^2 9^\circ + \sin^2 10^\circ + \sin^2 11^\circ + \sin^2 79^\circ + \sin^2 80^\circ + \sin^2 81^\circ =$  \_\_\_\_\_  
 (A) 1                      (B) 2                      (C) 3                      (D) 6
105.  $\cos 10^\circ \cdot \operatorname{cosec} 300^\circ \cdot \cos 20^\circ \cdot \operatorname{cosec} 290^\circ \cdot \cos 30^\circ \cdot \operatorname{cosec} 280^\circ =$  \_\_\_\_\_  
 (A) 0                      (B) 1                      (C) -1                      (D) 3
106. If a wheel makes 360 revolutions in one hour, then through how many radians does it turn in one second?  
 (A)  $\frac{\pi}{5}$                       (B)  $12\pi$                       (C) 36                      (D)  $36\pi$
107. If  $\cot \theta = \frac{3}{4}$  and  $\theta \in Q_3$  then  $\frac{1}{\cos \theta - \sin \theta} =$  \_\_\_\_\_  
 (A) 4                      (B) 5                      (C) 3                      (D) 1
108. If  $x = a \sec \theta$ ;  $y = a \tan \theta$  then  $x^2 - y^2 =$  \_\_\_\_\_  
 (A) 0                      (B) 1                      (C) a                      (D)  $a^2$
109. If  $\sin \theta = \cos \theta$  and  $360^\circ < \theta < 450^\circ$  then  $\theta =$  \_\_\_\_\_ degrees  
 (A) 400                      (B) 45                      (C) 405                      (D) None
110. The value of  $\sin \theta$  in terms of  $\sec \theta$  is \_\_\_\_\_  
 (A)  $\sqrt{\sec^2 \theta - 1}$                       (B)  $\frac{\sqrt{\sec^2 \theta - 1}}{\sec \theta}$                       (C)  $\frac{\sec \theta}{\sqrt{\sec^2 \theta - 1}}$                       (D)  $\sqrt{\frac{\sec^2 \theta - 1}{\sin \theta}}$
111. After eliminating 'θ' from the equations  $x = \sec \theta + \tan \theta$ ;  $y = \sec \theta - \tan \theta$ , we get  
 (A)  $x^2 - y^2 = 1$                       (B)  $x - y = 1$                       (C)  $x + y = 1$                       (D)  $xy = 1$
112.  $\sin 390^\circ =$  \_\_\_\_\_  
 (A)  $\frac{1}{2}$                       (B) 1                      (C)  $\frac{\sqrt{3}}{2}$                       (D) 0
113. If  $\sin(90 - \theta) = 1$  then  $\theta =$  \_\_\_\_\_  
 (A)  $0^\circ$                       (B)  $45^\circ$                       (C)  $60^\circ$                       (D)  $90^\circ$
114. The angle of elevation of the sun, when the height of the pole is  $\sqrt{3}$  times the length of its shadow of the pole is \_\_\_\_\_  
 (A)  $\frac{\pi}{6}$                       (B)  $\frac{\pi}{4}$                       (C)  $\frac{\pi}{3}$                       (D)  $5\frac{\pi}{12}$
115. A man from a top of a tower of height 100 mts. seen a car moving towards the tower at an angle of  $30^\circ$ . After some time the angle of depression became  $60^\circ$  then the distance traveled by the car is \_\_\_\_\_ mts  
 (A)  $100\sqrt{3}$                       (B)  $\frac{200\sqrt{3}}{3}$                       (C)  $\frac{100\sqrt{3}}{3}$                       (D)  $200\sqrt{3}$

116. The angle of elevation of 'C' from A and B are  $\alpha$  and  $\beta$  respectively. B is vertically above A and AB is equal to half of the height of 'C'. Then  $\cot \alpha \cdot \tan \beta =$   
 (A)  $\frac{1}{3}$  (B)  $\frac{1}{4}$  (C)  $\frac{1}{2}$  (D) 1
117.  $\cos(90 - \theta) =$  \_\_\_\_\_  
 (A)  $\sin \theta$  (B)  $\cos \theta$  (C)  $\sec \theta$  (D) None
118. If  $\sin \theta = \cos 2\theta$  then  $\cot 3\theta =$  \_\_\_\_\_  
 (A)  $\sqrt{3}$  (B)  $\frac{1}{\sqrt{3}}$  (C) 0 (D) not defined
119. If  $\sin 30^\circ = \cos A$  then  $A =$  \_\_\_\_\_ degrees  
 (A) 30 (B) 60 (C) 90 (D) None
120. If  $\cos 0^\circ + \sqrt{2} \sin 45^\circ + \sin A = 3$  then  $A =$  \_\_\_\_\_  
 (A)  $90^\circ$  (B)  $30^\circ$  (C)  $45^\circ$  (D)  $60^\circ$

## PHYSICS

121. Sound waves are \_\_\_\_\_  
 (A) transverse waves (B) mechanical wave  
 (C) electromagnetic waves (D) None
122. What are the units of frequency  
 (A) Hertz (B)  $s^{-1}$  (C) Both A and B (D) None
123. Sound waves are \_\_\_\_\_  
 (A) Longitudinal waves (B) Mechanical waves  
 (C) Transverse waves (D) Both (A) and (B)
124. If the angle of the prism (a) is very small then angle of minimum deviation ( $S_{\min}$ )  
 (A)  $(1 - \mu) A$  (B)  $(\mu - 1) A$  (C)  $\mu A$  (D)  $(\mu + 1) A$
125. What is the "mach number" of body if its speed is twice the speed of sound  
 (A) 1 (B) 3 (C) 2 (D) 4
126. Who proposed electromagnetic theory of light  
 (A) Maxwell (B) Newton (C) Einstein (D) Huygens
127. Sound waves whose frequency is less than 20 Hz are called  
 (A) Ultrasonic waves (B) Infrasonic waves  
 (C) Audible sound (D) None
128. A medium transmits a sound wave through it by virtue of its  
 (A) elasticity (B) Inertia (C) density (D) elasticity & inertia
129. If white light is passed through the prism then which coloured light suffers more deviation  
 (A) Red (B) Blue (C) Violet (D) Green
130. How velocity (v) of sound is related to density (d) of the medium

(A)  $v \propto d$                       (B)  $v \propto \frac{1}{d}$                       (C)  $v \propto \sqrt{d}$                       (D)  $v \propto \frac{1}{\sqrt{d}}$

131. A stone is dropped from the top of 600m high tower after what time the person dropped the stone will listen the sound. [take  $V_s = 300$  m/s;  $g = 10$  m/s<sup>2</sup>)  
 (A) 2 sec                      (B) 3 sec                      (C) 13 sec                      (D) 11 sec
132. Which of the following have longer wave length  
 (A) X-ray                      (B) Gamma ( $\gamma$ ) rays                      (C) Radio waves                      (D) Sound waves
133. Which of the following coloured light has high speed in vacuum?  
 (A) Violet                      (B) Blue                      (C) Red                      (D) All
134. Velocity of light in vacuum  
 (A)  $3 \times 10^8$  m/s                      (B)  $3 \times 10^6$  m/s                      (C)  $3 \times 10^{10}$  m/s                      (D)  $2.96 \times 10^{10}$  m/s

## CHEMISTRY

135. Which is not correct about gases?  
 (A) Gases are light and possess very little weight  
 (B) Gases exerts pressure  
 (C) Gases fill up the entire volume given to them  
 (D) None
136. 250 ml of oxygen gas was collected at 27°C. The gas is cooled to a temperature so that the volume becomes 100 ml at constant pressure (E) What is the new temperature?  
 (A) 120°C                      (B) 120 k                      (C) -153 k                      (D) 393 k
137. Graham's law of diffusion is useful to detect one of the following gases in coal mines  
 (A) Oxygen                      (B) SO<sub>2</sub>                      (C) Marsh gas                      (D) None
138. At same temperature and pressure which of the following pairs of gases has same rate of diffusion?  
 (A) CO, N<sub>2</sub>O                      (B) CO<sub>2</sub>, N<sub>2</sub>O                      (C) N<sub>2</sub>O, CH<sub>4</sub>                      (D) NO<sub>2</sub>, SO<sub>2</sub>
139. Which gas diffuses 4 times slowly than H<sub>2</sub> gas?  
 (A) H<sub>2</sub>S                      (B) O<sub>2</sub>                      (C) CH<sub>4</sub>                      (D) SO<sub>2</sub>
140. Which of the following changes can not increase the volume of gas by 4 times?  
 (A) T is doubled, P is halved                      (B) P is constant, T increased by 4 times  
 (C) T and P are doubled                      (D) T is constant, P is decreased by 1/4<sup>th</sup>
141. At what temperature, the volume 'V' of a certain mass of gas at 37°C be doubled ('P' is constant)  
 (A) 527 °C                      (B) 620k                      (C) 347k                      (D) 347°F
142. A glass bulb contains air at one atmosphere and 27°C. The maximum pressure which the bulb can withstand is 2 atmospher (E) At what temperature the bulb bursts?  
 (A) 600 k                      (B) 273 k                      (C) 327 k                      (D) 83 k

143. There is a gas in a sphere of radius '2r' at a pressure 'P', It is connected to another sphere of radius 'r', by means of a tube whose volume is negligible. What is the final pressure of gas after connection? ('T' constant)
- (A)  $\frac{9P}{8}$                       (B)  $\frac{8P}{9}$                       (C) 8P                      (D)  $\frac{8P}{27}$
144. The rate of diffusion of methane at a give temperature is twice that of gas X. The molecular weight of gas 'X' is
- (A) 32                      (B) 16                      (C) 8                      (D) 64
145. Which of the following gases has the lowest rate of diffusion?
- (A) CO<sub>2</sub>                      (B) SO<sub>2</sub>                      (C) NO<sub>2</sub>                      (D) ClO<sub>2</sub>
146. A certain sample of gas has a volume of 0.2 litres at 1 atm pressure and 0°C. At the same pressure but at 273°C, its volume in litres is
- (A) 0.4                      (B) 0.8                      (C) 27.8                      (D) 55.6
147. Under the same conditions the rates of diffusions of two gases are in the ratio 1 : 2, then the ratio of molecular weights is
- (A) 4 : 1                      (B) 1 : 2                      (C) 1 : 4                      (D) 16 : 1

## BIOLOGY

148. Which of the following is incorrect about humus?
- (A) It provides nourishment for plants to grow  
 (B) It helps to keep the upper layers of the soil moist  
 (C) It is decomposed organic matter  
 (D) It causes soil erosion
149. Presence of \_\_\_\_\_ in drinking water causes skeletal degradation.
- (A) Iodine                      (B) Chlorine                      (C) Fluorine                      (D) None of these
150. Cell division in vascular cambium is promoted by
- (A) Gibberellins                      (B) auxins                      (C) Ethylene                      (D) Abscisic acid
151. Anti diuretic hormone is
- (A) Prolactin                      (B) Oxytocin                      (C) Vasopressin                      (D) All the above
152. Fight or Flight hormone is
- (A) Adrenaline                      (B) Aldosterone                      (C) Cortisol                      (D) Thyroxin
153. Diabetes mellitus is caused due to the deficiency of
- (A) Vasopressin                      (B) insulin                      (C) ACTH                      (D) testosterone
154. Which hormone modifies the growth of a plant?
- (A) Auxins                      (B) Gibberellins                      (C) Ethylene                      (D) all the above
155. Wild life protection act is passed in the year
- (A) 1972                      (B) 1962                      (C) 1977                      (D) 1987
156. Burning of wood, plastic and rubber produces
- (A) Dioxins                      (B) furans                      (C) both A & B                      (D) Mycotoxins

157. The term "Biotechnology" for the first time by  
 (A) Robert Endurs (B) Karl Ericke (C) Fourier (D) Louis Pasteur
158. Which hormone is secreted by pancreas when blood glucose levels are low?  
 (A) Insulin (B) Prolactin (C) Glucagon (D) cortisol
159. Water loss from plants prevented by a hormone  
 (A) Gibberellins (B) NAA (C) IAA (D) ABA
160. Calcium and phosphate levels in bones are regulated by  
 (A) Thyroxin (B) prolactin (C) Paratharmone (D) Progesterone

### **SOCIAL STUDIES**

161. The amount of rainfall required for Evergreen Forests in a year is  
 (A) Above 200 cm (B) Between 100 and 200 cm  
 (C) Between 70 to 100 cm (D) Less than 70 cm
162. This vegetation is found in the high elevated and high rainfall areas of Himalayas.  
 (A) The deciduous (B) Alpine (C) Moist deciduous (D) Thar
163. Within the country, this state has the largest hectare of forest land  
 (A) Uttar Pradesh (B) Maharashtra (C) Madhya Pradesh (D) Andhra Pradesh
164. The National Forest Policy of India was announced in the year  
 (A) 1950 (B) 1952 (C) 1956 (D) 1960
165. The forests that are useful for boat building are  
 (A) Thorn forests (B) Tidal forests  
 (C) Alpine forests (D) Tropical well evergreen forests
166. The forests that are grown in coastal areas in brackish waters are  
 (A) Tidal forests (B) Thorn forests (C) Tropical dry forests (D) Alpine forests
167. Social forestry is meant for  
 (A) Growing spices (B) Bringing more area under forest coverage  
 (C) Fuel and wood resources (D) Growing medicinal plants
168. Thick forests could be seen in  
 (A) Temperate regions  
 (B) Coastal areas  
 (C) The regions having rainfall of more than 200 cm a year  
 (D) The areas with rainfall between 100 cm and 200 cm a year
169. The people living in a particular area should develop  
 (A) Thorn forests (B) Social forests (C) Agro forests (D) Evergreen forests
170. Sunderbans are found in the state of  
 (A) Bihar (B) West Bengal (C) Tamil Nadu (D) Karnataka
171. Spices are mostly grown in the forest of this stat(E)

- (A) Andhra Pradesh (B) Kerala  
(C) Tamil Nadu (D) Karnataka
172. The lowest area of forest land is found in this state (E)  
(A) Haryana (B) Madhya Pradesh  
(C) Bihar (D) Andhra Pradesh
173. Kendu leaves are useful for making  
(A) Dyeing cloth (B) Toys (C) Perfumes (D) Beedis
174. Northern circars were ceded to the English by the  
(A) Nawab of Mysore (B) Nawab of Arcot  
(C) Nizam of Hyderabad (D) King of Africa
175. Bengal, Bihar and Orissa had become the territory under the British rule after  
(A) The Battle of Plassey (B) The Battle of Buxar  
(C) The Maharatta war (D) The Battle of Paniput
176. This was the first country in Asia which came under the influence of Europeans.  
(A) China (B) Burma (C) Ceylon (D) India
177. The Europeans who first came to India were  
(A) The English (B) The French (C) The Dutch (D) The Portuguese
178. The First Person who explored Africa in 1482 was  
(A) Livingston (B) Cameroon (C) Leopold (D) Martin Luther
179. The pioneer among the colonial nations was  
(A) England (B) Portugal (C) Germany (D) Dutch
180. He was sent by England to occupy Sudan  
(A) General Gordon (B) Colonel Hicks  
(C) Lord Kitchner (D) Lord Wellesley
181. Leader of the outlanders was  
(A) Cecil Rhodes (B) Hicks (C) Gordon (D) Cameroon
182. The King who convened a conference of all European states in 1879 to discuss the issue of explorations of Africa was  
(A) James - I (B) Leopold - I (C) Metternich (D) Livingston
183. Who viewed imperialism as the highest stage of capitalism?  
(A) Stalin (B) Cameroon (C) Lenin (D) Hobson
184. The second opium war ended with the treaty of  
(A) Versailles (B) Nanking (C) Tientsin (D) Triple Alliance
185. Who replied to the Europeans in 1796 that "We possess all things. I set no value on things strange and have no use for your country's manufacturers"?  
(A) Shiwang Ti (B) Chieunlung (C) sangpo (D) Hwang ho
186. Great Britain lost her 13 colonies of America in



- (A) 1789                      (B) 1738                      (C) 1783                      (D) 1879
187. Somali land was occupied by  
 (A) Italy                      (B) Germany                      (C) England                      (D) Portugal
188. What is Foreign Policy?  
 (A) It is a set of deliberately chosen guidelines for the protection and promotion national interest to the maximum extent possible in the international arena.  
 (B) The international system into which India entered was dominated by America and Russia.  
 (C) The conference of the Afro-Asian countries was held in Bandung in the Year.  
 (D) It is the association for the people to help the affected areas by nature calamities and contagious diseases like cholera, tuberculosis etc.
189. SAARC was launched in 1985 at the  
 (A) New Delhi Summit                      (B) Dhaka Summit  
 (C) Cairo Summit                      (D) Colombo Summit
190. The number of countries in the world at present is  
 (A) 193                      (B) 180                      (C) 168                      (D) 185
191. The U.N.O came into existence on  
 (A) 24<sup>th</sup> Oct., 1944    (B) 24<sup>th</sup> Oct., 1945    (C) 24<sup>th</sup> Oct., 1946    (D) 24<sup>th</sup> Oct., 1947
192. India conducted nuclear explosion in the year  
 (A) 1972                      (B) 1973                      (C) 1974                      (D) 1975
193. Today the Common wealth has  
 (A) 50 member nations                      (B) 52 member nations  
 (C) 54 member nations                      (D) 56 member nations
194. The activities of the specialized agencies of the U.N. are co-ordinate by  
 (A) General Assembly                      (B) Security Council  
 (C) Economic and Social Council                      (D) Trusteeship Council
195. What is meant by NIEO?  
 (A) New international educational organization  
 (B) Neo Integrated Environment order  
 (C) Natal international Economic order  
 (D) New International Economic Order
196. The privileged special power (VETO) of the five big countries is  
 (A) India, Pakistan, Bangladesh, Srilanka, America  
 (B) France, China, Russia, Britain, America  
 (C) China, Pakistan, Russia, America, India  
 (D) U.K, U.S.A, U.S.S.R, India, France
197. The World Court's headquarters are situated at the city of  
 (A) The Tokyo in Japan                      (B) The New York in USA  
 (C) Vienna in Austria                      (D) The Hague in Netherlands

198. World health day is celebrated every year on  
(A) 7<sup>th</sup> September (B) 7<sup>th</sup> November (C) 7<sup>th</sup> April (D) 7<sup>th</sup> October
199. The International court of Justice consists of  
(A) 10 Judges (B) 15 Judges (C) 12 Judges (D) 9Judges
200. The Legislative Organ of the UNO is  
(A) General Assembly (B) Security Council  
(C) Secretariat (D) Economic and Social Council

\* \* \*

**MENTAL ABILITY TEST**

1.	<b>B</b>	2.	<b>D</b>	3.	<b>B</b>	4.	<b>A</b>	5.	<b>B</b>
6.	<b>C</b>	7.	<b>A</b>	8.	<b>B</b>	9.	<b>D</b>	10.	<b>B</b>
11.	<b>B</b>	12.	<b>D</b>	13.	<b>A</b>	14.	<b>C</b>	15.	<b>D</b>
16.	<b>A</b>	17.	<b>B</b>	18.	<b>C</b>	19.	<b>A</b>	20.	<b>A</b>
21.	<b>C</b>	22.	<b>D</b>	23.	<b>B</b>	24.	<b>B</b>	25.	<b>C</b>
26.	<b>C</b>	27.	<b>A</b>	28.	<b>A</b>	29.	<b>B</b>	30.	<b>C</b>
31.	<b>B</b>	32.	<b>C</b>	33.	<b>E</b>	34.	<b>C</b>	35.	<b>B</b>
36.	<b>A</b>	37.	<b>D</b>	38.	<b>D</b>	39.	<b>C</b>	40.	<b>B</b>
41.	<b>A</b>	42.	<b>D</b>	43.	<b>E</b>	44.	<b>A</b>	45.	<b>B</b>
46.	<b>A</b>	47.	<b>D</b>	48.	<b>A</b>	49.	<b>A</b>	50.	<b>B</b>
51.	<b>D</b>	52.	<b>C</b>	53.	<b>B</b>	54.	<b>D</b>	55.	<b>A</b>
56.	<b>A</b>	57.	<b>D</b>	58.	<b>B</b>	59.	<b>C</b>	60.	<b>C</b>
61.	<b>A</b>	62.	<b>A</b>	63.	<b>B</b>	64.	<b>D</b>	65.	<b>C</b>
66.	<b>D</b>	67.	<b>C</b>	68.	<b>D</b>	69.	<b>B</b>	70.	<b>C</b>
71.	<b>D</b>	72.	<b>D</b>	73.	<b>A</b>	74.	<b>B</b>	75.	<b>D</b>
76.	<b>E</b>	77.	<b>A</b>	78.	<b>E</b>	79.	<b>D</b>	80.	<b>C</b>
81.	<b>C</b>	82.	<b>B</b>	83.	<b>B</b>	84.	<b>C</b>	85.	<b>A</b>
86.	<b>C</b>	87.	<b>B</b>	88.	<b>A</b>	89.	<b>B</b>	90.	<b>B</b>
91.	<b>B</b>	92.	<b>D</b>	93.	<b>C</b>	94.	<b>B</b>	95.	<b>C</b>
96.	<b>E</b>	97.	<b>C</b>	98.	<b>D</b>	99.	<b>B</b>	100.	<b>D</b>

**MATHEMATICS**

101.	<b>D</b>	102.	<b>B</b>	103.	<b>A</b>	104.	<b>C</b>	105.	<b>C</b>
106.	<b>A</b>	107.	<b>B</b>	108.	<b>D</b>	109.	<b>C</b>	110.	<b>B</b>
111.	<b>D</b>	112.	<b>A</b>	113.	<b>A</b>	114.	<b>C</b>	115.	<b>B</b>
116.	<b>C</b>	117.	<b>A</b>	118.	<b>C</b>	119.	<b>B</b>	120.	<b>A</b>

## PHYSICS

<b>PHY</b> 121.	<b>B</b>	122.	<b>C</b>	123.	<b>D</b>	124.	<b>B</b>	125.	<b>C</b>
126.	<b>A</b>	127.	<b>B</b>	128.	<b>D</b>	129.	<b>C</b>	130.	<b>D</b>
131.	<b>C</b>	132.	<b>D</b>	133.	<b>D</b>	134.	<b>A</b>	<b>CHEM</b> 135.	<b>D</b>
136.	<b>B</b>	137.	<b>C</b>	138.	<b>B</b>	139.	<b>B</b>	140.	<b>C</b>
141.	<b>B</b>	142.	<b>A</b>	143.	<b>B</b>	144.	<b>D</b>	145.	<b>D</b>
146.	<b>A</b>	147.	<b>A</b>	<b>BIO</b> 148.	<b>D</b>	149.	<b>C</b>	150.	<b>B</b>
151.	<b>C</b>	152.	<b>A</b>	153.	<b>B</b>	154.	<b>C</b>	155.	<b>A</b>
156.	<b>C</b>	157.	<b>B</b>	158.	<b>C</b>	159.	<b>D</b>	160.	<b>C</b>

## SOCIAL STUDIES

161.	<b>A</b>	162.	<b>B</b>	163.	<b>C</b>	164.	<b>B</b>	165.	<b>B</b>
166.	<b>A</b>	167.	<b>B</b>	168.	<b>C</b>	169.	<b>B</b>	170.	<b>B</b>
171.	<b>B</b>	172.	<b>A</b>	173.	<b>D</b>	174.	<b>C</b>	175.	<b>B</b>
176.	<b>D</b>	177.	<b>D</b>	178.	<b>A</b>	179.	<b>A</b>	180.	<b>B</b>
181.	<b>A</b>	182.	<b>B</b>	183.	<b>C</b>	184.	<b>C</b>	185.	<b>B</b>
186.	<b>C</b>	187.	<b>A</b>	188.	<b>A</b>	189.	<b>B</b>	190.	<b>A</b>
191.	<b>B</b>	192.	<b>C</b>	193.	<b>C</b>	194.	<b>C</b>	195.	<b>D</b>
196.	<b>B</b>	197.	<b>D</b>	198.	<b>C</b>	199.	<b>B</b>	200.	<b>A</b>