Space For Rough Work

ENGLISH   Roll No. ⬜⬜⬜⬜⬜⬜⬜⬜⬜⬜⬜

NMMS - NOVEMBER, 2017

MENTAL ABILITY AND SCHOLASTIC APTITUDE TEST

Time : Part - I : 90 Minutes   *Max. Marks* : 90
Time : Part - II : 90 Minutes   *Max. Marks* : 90

Instructions to 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 **HB Pencil.** Read the **Instructions printed on the OMR Sheet carefully before answering the questions.**

1. 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.

2. The Test is in TWO Parts. **Part-I** consists of **90** questions and **Part-II** also consists of **90** questions.

3. All questions in Part-I and Part-II carry **one** mark each.

4. Since **all** questions are **compulsory**, do not try to read through the whole question paper before beginning to answer it.

5. Begin with the first question and keep trying one question after another till you finish both the Parts.

B-125

B-125

[32]

[1]

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.

7. 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.

9. **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.

11. 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.

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 Booklet. For shading the circles, use a **HB Pencil**.

(Space for Rough Work)

Directions :

Questions (1 to 10) :

In the number series given below, one number is missing. Each series is followed by five alternatives (1), (2), (3), (4) and (5). One of them is the right answer. Indicate it as per the "Instructions".

1. 16, 33, 65, 131, ...?..., 523
   (1) 521
   (2) 613
   (3) 721
   (4) 261
   (5) 324

2. 0, 5, 8, 17, 24, 37, ...?...
   (1) 64
   (2) 65
   (3) 56
   (4) 75
   (5) 58

3. 5, 11, 21, 43, 85, 171, 341, ...?...
   (1) 570
   (2) 683
   (3) 596
   (4) 626
   (5) 356

4. 0, 3, 8, 15, 24, 35, ...?...
   (1) 46
   (2) 51
   (3) 48
   (4) 57
   (5) 45

5. 2, 5, 10, 17, 26, 37, ...?...
   (1) 50
   (2) 51
   (3) 46
   (4) 57
   (5) 39

6. 3, 6, 7, 14, 15, 30,
   31, 62, 63, ...?..., ...?...
   (1) 128, 112
   (2) 119, 131
   (3) 127, 115
   (4) 126, 127
   (5) 135, 136

7. − 2, 5, 24, 61, 122, ...?....
   (1) 163
   (2) 176
   (3) 213
   (4) 227
   (5) 264

8. 6, 12, 21, ...?..., 48
   (1) 40
   (2) 33
   (3) 45
   (4) 53
   (5) 56

9. 2460, 3570, 4680, ...?...
   (1) 8640
   (2) 5670
   (3) 5970
   (4) 5790
   (5) 8460

10. 1, 8, 27, 64, 125, ...?...
   (1) 216
   (2) 160
   (3) 148
   (4) 156
   (5) 210

Directions :

Questions (11 to 20) : 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.

11. $36 - 9 \times 4 = 8$
    (1) $=, +, -$
    (2) $\times, -, =$
    (3) $+, -, =$
    (4) $\div, +, =$
    (5) $+, -, \times$

12. $2 + 3 \times 5 - 1$
    (1) $\times, +, =$
    (2) $=, +, -$
    (3) $\times, -, =$
    (4) $+, -, =$
    (5) $+, -, \times$

13. $4 + 3 \times 5 = 17$
    (1) $\times, +, =$
    (2) $-, +, =$
    (3) $=, +, -$
    (4) $-, \times, =$
    (5) $+, -, \times$

14. $25 = 5 \times 3 + 2$
    (1) $-, +, =$
    (2) $\div, -, =$
    (3) $=, +, -$
    (4) $\times, -, =$
    (5) $+, -, \times$

15. $17 = 7 - 2 \times 3$
    (1) $+, -, =$
    (2) $-, \times, =$
    (3) $=, \times, +$
    (4) $-, =, +$
    (5) $+, -, \times$

16. $32 = 21 + 4 - 15$
    (1) $-, \times, =$
    (2) $+, -, =$
    (3) $=, \div, +$
    (4) $-, +, =$
    (5) $+, -, \times$

17. $15 \times 5 - 4 = 12$
    (1) $\div, \times, =$
    (2) $=, \times, -$
    (3) $+, -, =$
    (4) $\div, -, =$
    (5) $+, -, \times$

18. $15 - 3 + 4 = 3$
    (1) $=, -, +$
    (2) $=, +, \times$
    (3) $\times, -, =$
    (4) $\div, -, =$
    (5) $+, -, \times$

19. $6 = 3 + 5 - 8$
    (1) $\times, -, =$
    (2) $\div, +, =$
    (3) $-, +, =$
    (4) $+, -, =$
    (5) $+, -, \times$

20. $5 = 3 \times 7 - 8$
    (1) $=, +, -$
    (2) $\times, \div, =$
    (3) $+, -, =$
    (4) $\times, -, =$
    (5) $+, -, \times$

Directions :

Questions (21 to 30) : 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.

21.

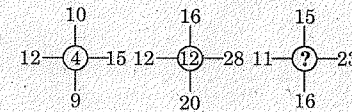| 16	28	29
13	12	16
14	10	15
15	30	?

    (1) 60
    (2) 30
    (3) 20
    (4) 45
    (5) 15

22.

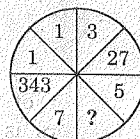| 3	15	4
7	38	5
3	?	5

    (1) 15
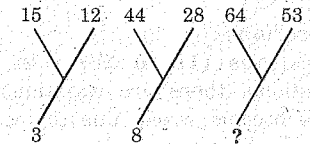   (2) 19
    (3) 20
    (4) 18
    (5) 17

23.

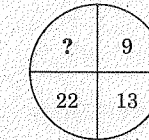   (1) 11
    (2) 14
    (3) 10
    (4) 12
    (5) 13

24.

    (1) 11
    (2) 14
    (3) 10
    (4) 12
    (5) 16

25.

    (1) 30
    (2) 13
    (3) 70
    (4) 118
    (5) 16

26.

    (1) 40
    (2) 38
    (3) 44
    (4) 39
    (5) 36

27.
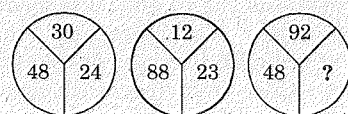
    (1) 60
    (2) 46
    (3) 86
    (4) 75
    (5) 64

28.

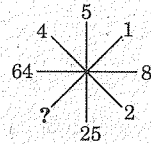| O	V	H	M	E	T	D	N	X
17	10	24	18	26	11	26	16	?

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

29.

5			
32	?	44	7
6			

(1) 33
(2) 38
(3) 32
(4) 37
(5) 36

30.

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

Directions :

Questions (31 to 40) : The following Questions are based on simple arithmetic calculations. There are five alternatives given under each question. After identifying the right answer, indicate it as per the "Instructions".

31. $4444 + 444 + 44 + 4 = $ ......
(1) 4934
(2) 4836
(3) 4834
(4) 4944
(5) 4936

32. $45 \times ? = 2025$
(1) 25
(2) 35
(3) 45
(4) 55
(5) 15

33. $120 \div 500 = ?$
(1) 0.24
(2) 0.024
(3) 24.0
(4) 2.4
(5) 0.4

34. $\sqrt{625} - x = 10,\ x = ?$
(1) 10
(2) 4
(3) 15
(4) 5
(5) 6

35. $75 \div $ .... $= 75000$
(1) 1.01
(2) 0.1
(3) 0.0001
(4) 0.001
(5) 0.01

36. $\dfrac{75 + 6 \times 0.5}{6} = ?$
(1) 37.5
(2) 7.5
(3) 75
(4) 12
(5) 13

37. $65,430 - $ .... $= 11,000$
(1) 54,030
(2) 54,400
(3) 54,430
(4) 64,430
(5) 55,430

38. 40% of $4200 = ?$
(1) 1680
(2) 1600
(3) 1480
(4) 1580
(5) 1640

39. $\dfrac{8^2 + 60}{2^2} = $ ....
(1) 30
(2) 31
(3) 28
(4) 36
(5) 32

40. $0.01 \times 0.05 = ?$
(1) 1.005
(2) 0.05
(3) 0.000005
(4) 0.0005
(5) 0.00005

Directions :

Questions (41 to 50) : 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 another side of ::, while another word is to be found from the given five alternatives, having the same relation with this word as the words of the given pair. Choose the correct alternatives.

41. Car : Garage :: Aeroplane : ?
(1) Port
(2) Depot
(3) Hangar
(4) Harbour
(5) Busbay

42. Race : Fatigue :: Fast : ?
(1) Food
(2) Appetite
(3) Hunger
(4) Weakness
(5) Fever

43. Candle : Wax :: Paper : ?
(1) Wood
(2) Tree
(3) Bamboo
(4) Pulp
(5) Oil

44. Acting : Theatre :: Gambling : ?
(1) Casino
(2) Club
(3) Bar
(4) Gym
(5) Playground

45. Water : Convection :: Space : ?
(1) Conduction
(2) Transference
(3) Vacuum
(4) Radiation
(5) Evaluation

46. Growth : Death :: Increase : ?
(1) Ease
(2) Decrease
(3) Tease
(4) Cease
(5) Erase

47. Oxygen : Burn :: Carbondioxide : ?
(1) Isolate
(2) Foam
(3) Extinguish
(4) Explode
(5) Evaporate

48. Dog : Bark :: Goat : ?
 (1) Bleat
 (2) Howl
 (3) Grunt
 (4) Bray
 (5) Slap

49. Planet : Orbit :: Projectile : ?
 (1) Trajectory
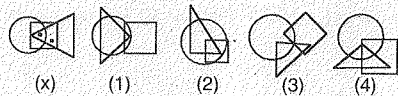 (2) Track
 (3) Milk way
 (4) Path
 (5) Universe

50. Oceans : Deserts :: Waves : ?
 (1) Sea
 (2) Dust
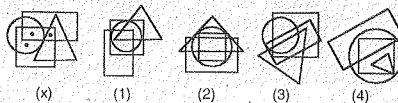 (3) Sand dunes
 (4) Ripples
 (5) Particles

Directions :
Questions (51 to 60) : From amongst the figures marked (1), (2), (3), (4); select the figure which satisfies the same conditions of placement of the dots as in figure X.
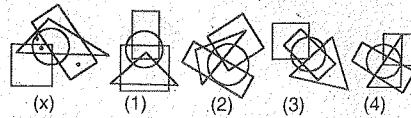
51.
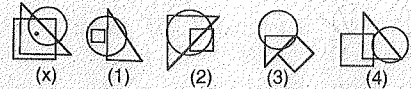
(x) (1) (2) (3) (4)

(1) 1 (2) 2 (3) 3 (4) 4 (5) None

52.

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

(1) 1 (2) 2 (3) 3 (4) 4 (5) None

53.

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

(1) 1 (2) 2 (3) 3 (4) 4 (5) None

54.

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

(1) 1 (2) 2 (3) 3 (4) 4 (5) None

55.
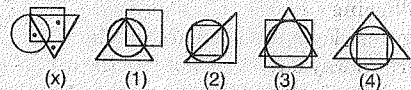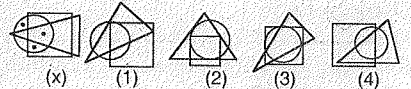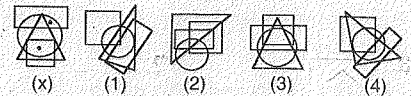
(x) (1) (2) (3) (4)

(1) 1 (2) 2 (3) 3 (4) 4 (5) None

56.

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

(1) 1 (2) 2 (3) 3 (4) 4 (5) None

57.

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

(1) 1 (2) 2 (3) 3 (4) 4 (5) None

58.

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

(1) 1 (2) 2 (3) 3 (4) 4 (5) None

59.

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

(1) 1 (2) 2 (3) 3 (4) 4 (5) None

60.

(x) (1) (2) (3) (4)
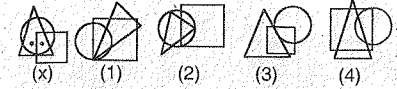
(1) 1 (2) 2 (3) 3 (4) 4 (5) None

Directions :
(Questions 61 to 70) : In each of the following questions, there are five figures. Four of them are similar in a certain way but one is not like the other four. Find out, which are of the figure different from the others.

61.

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

62.

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

63.

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

64.

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

65.

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

66.

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

67.

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

68.

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

69.

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

70.

(1) (2) (3) (4) (5)
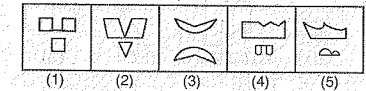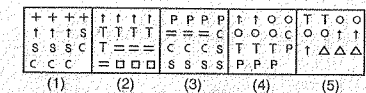
Directions :
(Questions 71 to 80) : Select a figure from the given 5 alternatives, which fits excatly into figure X to form a complete Square.

71.

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

(1) 1 (2) 2 (3) 3 (4) 4 (5) None

72.

(1) 1　(2) 2　(3) 3　(4) 4　(5) None

73.

(1) 1　(2) 2　(3) 3　(4) 4　(5) None

74.

(1) 1　(2) 2　(3) 3　(4) 4　(5) None

75.

(1) 1　(2) 2　(3) 3　(4) 4　(5) None
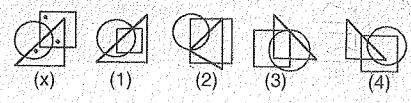
76.

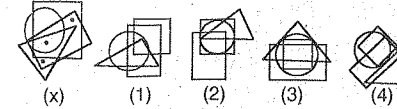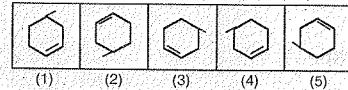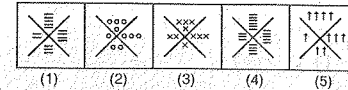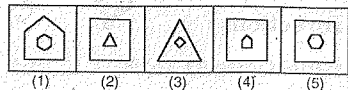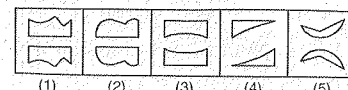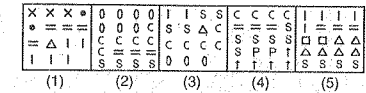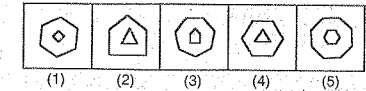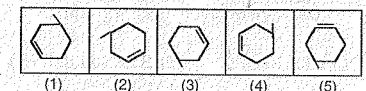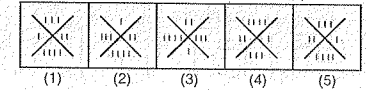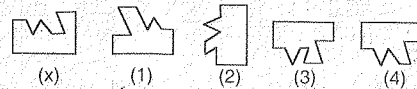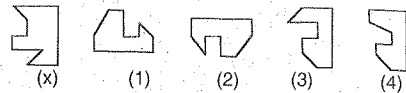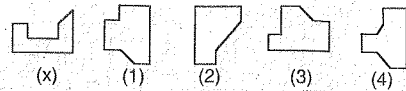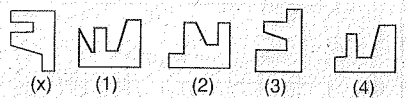(1) 1　(2) 2　(3) 3　(4) 4　(5) None

77.
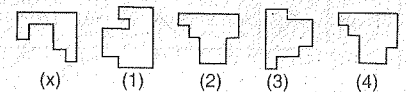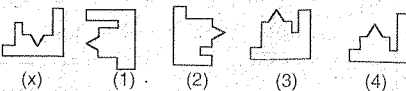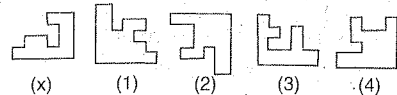

(1) 1　(2) 2　(3) 3　(4) 4　(5) None

78.
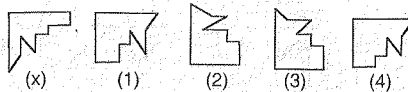
(1) 1　(2) 2　(3) 3　(4) 4　(5) None

79.
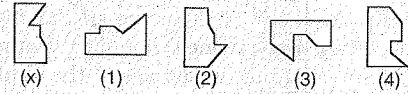
(1) 1　(2) 2　(3) 3　(4) 4　(5) None

80.
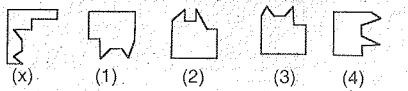
(1) 1　(2) 2　(3) 3　(4) 4　(5) None

Directions :

(Questions 81 to 90) : In each of the following questions, the second figure in the first unit of the problem figure bears a certain relationship to the first figure. Similarly one of the answer figure bears the same relationship to the first figure of the second unit of the problem figures. You have to therefore locate the figure, which would fit the Question Mark.

81. *Problem figures*
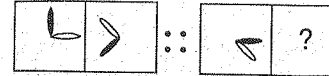
Answer figures
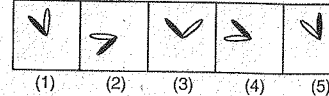
82. *Problem figures*
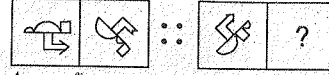
Answer figures
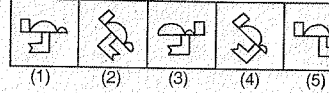
83. *Problem figures*
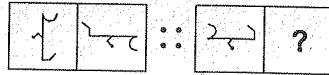
Answer figures
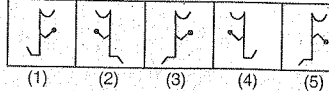
84. *Problem figures*
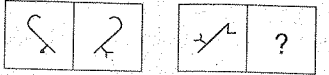
Answer figures
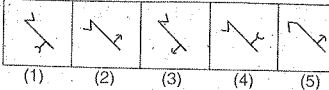
85. *Problem figures*

Answer figures
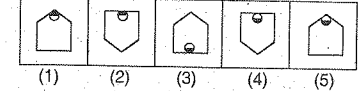
86. *Problem figures*

Answer figures
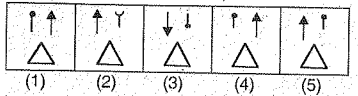
87. *Problem figures*

Answer figures
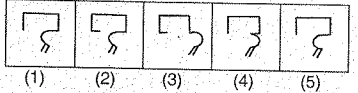
88. *Problem figures*

Answer figures
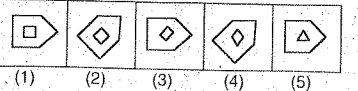
89. Problem figures

Answer figures

(1) (2) (3) (4) (5)
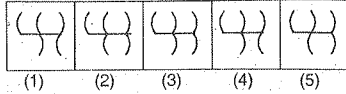
90. Problem figures

Answer figures

(1) (2) (3) (4) (5)
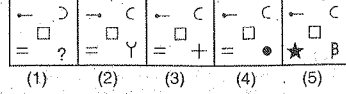
(Space for Rough Work)

(Space for Rough Work)

PART - II

SCHOLASTIC TEST

Time : 90 Minutes

Max. Marks : 90

Note :-

(i) Subjects, Questions Sl. No. and Marks allotted :-

(1)	Physics	91 to 102 Questions	12 Marks
(2)	Chemistry	103 to 113 Questions	11 Marks
(3)	Biology	114 to 125 Questions	12 Marks
(4)	Mathematics	126 to 145 Questions	20 Marks
(5)	History	146 to 155 Questions	10 Marks
(6)	Geography	156 to 165 Questions	10 Marks
(7)	Political Science	166 to 175 Questions	10 Marks
(8)	Economics	176 to 180 Questions	05 Marks

(ii) **SHADE** the circle having the correct alternative in the OMR Sheet provided, from amongst the ones given against the corresponding question in the Question Paper Booklet. For shading the circles, use a **HB Pencil**.

(Space for Rough Work)

PHYSICS

91. As shown in the figure, a mass of 30 kg is applying a force to lift a block of mass 6 kg with an acceleration of 2 m/s^2.
Find the reading of the machine (consider $g = 10$ m/s^2) ?

(1)   22.8 N   (2)   22.8 kg
(3)   228 kg   (4)   72 N
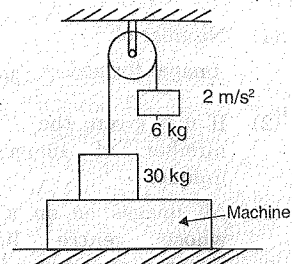
92. Which of the following has relatively more temperature ?

Object	Temperature
A	– 5°C
B	5°F
C	0°C
D	25°F

(1)   A   (2)   B
(3)   C   (4)   D

93. A magnet can test another magnet by showing ......
(1)   Attraction
(2)   Replusion
(3)   Different size
(4)   We can't decide except with colour.

94. Which of the following figure follows laws of reflection ?
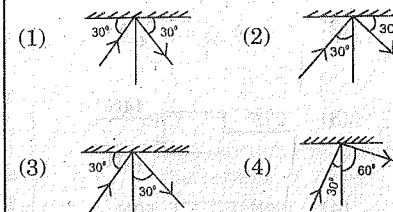
95. How the following figure appears in a plane mirror ?
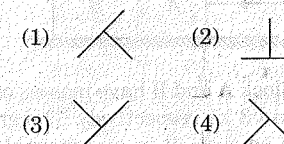
96. Which of the following is non contact force ?
(1)   Mascular force
(2)   Magnetic force
(3)   Normal force
(4)   Force of friction.

97. An athlete complete one round of circular track of radius 'r' in 30 s. What will be his displacement at the end of 2 minutes 45 seconds ?
(1)   7 r
(2)   2 r
(3)   2 πr
(4)   7 πr

B-125   [19]

98. Which of the following have more net force ?

(1)
3N →
4N →
← 7N

(2)
3N →
← 5N

(3)
27N →
14N →
← 13N

(4)
50N →
← 50N

99.

P = 10N →
2 kg A | 3 kg B
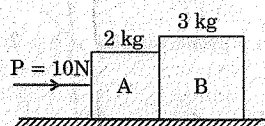
Block A and B have masses of 2 kg and 3 kg respectively. The ground is smooth. P in an external force of 10 N. Then the force exerted by B on A is ....

(1) 4 N

(2) 6 N

(3) 8 N

(4) 10 N

100. A pen is falling from a table. Neglect air resistance. The free body diagram for this situation

(1) ↓

(2) ↓

(3) ↑

(4) ↑ ←
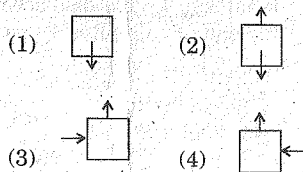
101. If two plane mirrors A and B are kept inclined to each other on an angle θ with their reflecting surfaces facing each other, multiple reflection takes place and more than one image formed. Then which of the following statement is true ?

A | B
θ
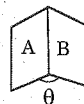
(1) Number of images formed = $\dfrac{360}{\theta} - 1$

(2) If θ is given, the number of images are unique.

(3) All images lie on a circle, whose centre lie on intersection of two mirrors.

(4) All the above.

102. A block rests on surface. A horizontal force applied on it increases linearly with time t begins to act on block at $t = 0$. It's velocity (v) is plotted against time t. Which of the graph is correct ?

(1)
v
t

(2)
v
t

(3)
v
t

(4)
v
t
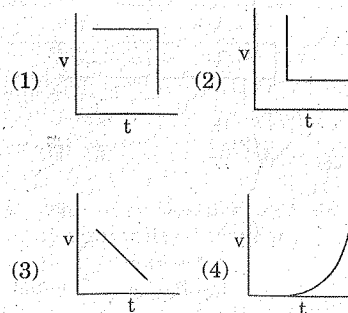
CHEMISTRY

103. Choose the incorrect statement.

(1) Thermosetting plastics are remouldable.

(2) Polythene is a thermoplastic.

(3) Melamine is a plastic used for making kitchenware.

(4) In India, very thin polythene bags have been banned.

104. Observe the following reactions between a metal and another metal salt solution.

(a) Copper + Zinc Sulphate solution.

(b) Copper + Iron Sulphate solution.

(c) Iron + Zinc Sulphate solution.

(d) Zinc + Copper Sulphate solution.

Only the reaction 'd' is possible but a, b and c reactions does not occur. Hence reactive metal among the following is ....

(1) Copper

(2) Zinc

(3) Iron

(4) All the three are equally reactive.

105. In the process of electroplating of Copper on an Iron article, the wrong statement is ....

(1) Copper sulphate solution is used.

(2) Iron article is connected to negative terminal of the battery.

(3) Copper metal rod is connected to positive terminal of the battery.

(4) Iron sulphate solution is taken in the electrolysis beaker.

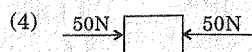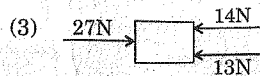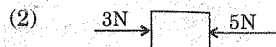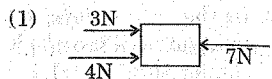**106.** In the recent days, which of the following will provide heat to start combustion on the head of a match-stick ?

(1) Antimony tri sulphide.

(2) Potassium chlorate.

(3) Starch.

(4) Red phosphorus present in the rubbing surface.

107. Ramu was performing an experiment with a blue coloured solution (X) in a beaker. By mistake a shaving blade fell into the beaker. After half an hour, he found that the colour of the solution in beaker change to green (Y). What could be the solutions X and Y respectively ?

Blue solution X | Green solution Y
reddish brown deposition on blade
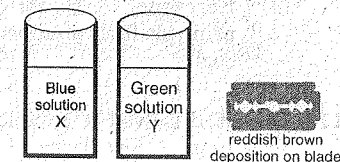
(1) Iron sulphate,
Zinc sulphate.

(2) Iron sulphate,
Copper sulphate.

(3) Copper sulphate,
Zinc sulphate.

(4) Copper sulphate,
Iron sulphate.

108. Silver foil is used for wrapping food. Which property of Silver is used for this ?
    (1) Density
    (2) Malleability
    (3) Ductility
    (4) Strength

109. Choose the wrong statement among the following :
    (1) Fossil fuels like coal, petroleum and natural gas can not be prepared in the laboratory.
    (2) Formaton of fossil fuels is a slow process and the required conditions can not be created in the laboratory.
    (3) Various components of petroleum are separated by fractional distillation, a process known as refining of petroleum.
    (4) Kerosene, Diesel are principle fuels obtained from coal.

110. Venkat dissolved a sample of a food item in few drops of water and tested the solution by adding two drops of Copper sulphate solution and 10 drops of 10% Caustic soda solution. He observed violet colour after few minutes.
    The food item he tested may be :
    (1) Sugar (Sucrose).
    (2) Cooked Rice.
    (3) Milk.
    (4) Glucose.

111. Match column A with column B as regard to characteristics of a flame and its different zones.

Column A	Column B
a. Dark inner zone.	1. Hottest part of the flame.
b. Blue zone	2. Incomplete combustion.
c. Luminous zone.	3. Un-burnt vapour of wax.
d. Non-luminous zone.	4. Complete combustion.

    (1) a-1, b-2, c-3, d-4
    (2) a-2, b-3, c-4, d-1
    (3) a-3, b-4, c-2, d-1
    (4) a-4, b-1, c-2, d-3

112. A burning substance will ....., if the temperature falls below its ignition temperature.
    (1) be extinguished.
    (2) burn brightly.
    (3) burn dimly.
    (4) burn with smoke.

113. Water is poured into two bottles X and Y as shown in the figure. The mouth of bottle 'X' is open, while that of 'Y' is sealed. What will happen ?
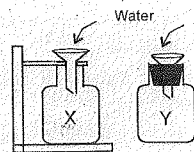
    (1) Water will flow into both the bottles easily.
    (2) Water will flow easily into bottle X.
    (3) Water will flow easily into bottle Y.
    (4) Water will not flow into both of the bottles.

BIOLOGY

114. Which method is employed when the availability of water is poor for cultivation ?
    (1) Through canals.
    (2) Through machines.
    (3) Drip irrigation.
    (4) Through Tankers.

115. Tikka disease is seen in .....
    (1) Lemon
    (2) Groundnut
    (3) Tobacco
    (4) Paddy

116. The ideal percentage of forests on earth is .....
    (1) 23%
    (2) 33%
    (3) 13%
    (4) 45%

117. Match the item in part-I with part-II.

Part-I	Part-II
(a) Tuberculosis	(i) contaminated water & food.
(b) Polio	(ii) Through air.
(c) Malaria	(iii) Through air & water.
(d) Hepatitis-B	(iv) Through mosquitoes.

    (1) a - i, b - iii, c - ii, d - iv
    (2) a - ii, b - iii, c - iv, d - i
    (3) a - iv, b - i, c - ii, d - iii
    (4) a - iii, b - ii, c - i, d - iv

118. Dengue fever is spread by .....
    (1) Female culex
    (2) Ades
    (3) Female anopheles
    (4) Male culex

119. Fertilization in human beings takes place in .....
    (1) Uterus
    (2) Ovary
    (3) Fallopian tube
    (4) Cervix

120. Who invented vaccine for Small-pox ?
    (1) Edward Jenner
    (2) Loius Pasteur
    (3) Y. Subba Rao
    (4) Alexander Flemming

121. Choose the incorrect pair.
    (1) Hydra - binary fission.
    (2) Humans - internal fertilization.
    (3) Fishes - external fertilization.
    (4) Birds - internal fertilization.

122. The secretions of endocrine glands are called ...
    (1) minerals
    (2) hormones
    (3) enzymes
    (4) vitamins

123. External ears and epidermal hairs are the characteristics of ....
(1) Oviparous animals.
(2) Nocturnal animals.
(3) Viviparous.
(4) Terrestrial animals.

124. The burning sensation to an ant bite due to ...
(1) Sulphuric acid
(2) Hydrochloric acid
(3) Citric acid
(4) Formic acid

125. What are the three major manures for healthy growth of plants ?
(1) Nitrogen - Manganese - Molibdinum.
(2) Manganese - Nitrogen - Phosphorus.
(3) Phosphorus - Nitrogen - Iron.
(4) Nitrogen - Phosphorus - Potash.

MATHEMATICS

126. The largest number of four digits exactly divisible by 12, 15, 18 and 27 is ....
(1) 8648
(2) 9720
(3) 6782
(4) 5642

127. If $a\,679\,b$ is a five digit number that is divisible by 72, then the value of $a+b$ is ...
(1) 5
(2) 8
(3) 7
(4) 6

128. If $\frac{154}{69}$ is expressed as $a+\cfrac{1}{b+\cfrac{1}{c+\cfrac{1}{d}}}$, then the value of $(c+d)-(a+b)$, when a, b, c, d are integers, will be...
(1) 4
(2) 5
(3) 6
(4) 2

129. If $x:y = 3:4$, then the value of $(4x-y):(2x+3y)$ is ....
(1) 4:9
(2) 8:9
(3) 4:3
(4) 8:3

130. If $x+y+z=0$, then $\frac{x^2}{yz}+\frac{y^2}{zx}+\frac{z^2}{xy}$ is ......
(1) $\sqrt{3}$
(2) $3\sqrt{3}$
(3) 3
(4) 0

131. If $2^n-2^{n-1}=4$, then the value of n^n will be ....
(1) 1
(2) $\frac{3}{2}$
(3) 2
(4) 27

132. The ratio (of) between diagonals of two squares is 2:1, then the ratio between their areas, will be ......
(1) 2:1
(2) 4:1
(3) 3:1
(4) 6:1

133. $\frac{(3.63)^2-(2.37)^2}{3.63+2.37}$ is simplified to ......
(1) 6
(2) 1.36
(3) 2.26
(4) 1.26

134. Simplest form of the expression

$\left(x^6 \cdot y^{-5/4}\right)^{-4/3}$ will be .....

(1) $x^{-24}y$

(2) $x^{-8} \cdot y^{5/3}$

(3) $x^8 \cdot y^{-5/3}$

(4) $x^{-8} \cdot y^{-5/3}$

135. If $(x + y) : (x - y) = 5 : 1$, then the value of $\left(x^2 - y^2\right) : \left(x^2 + y^2\right)$, will be .....

(1) $5 : 13$

(2) $2 : 3$

(3) $3 : 2$

(4) $13 : 5$

136. The area of a triangle is 57.24 square cm. If the two sides are 8 cm and 19 cm respectively, then the third side will be ....

(1) 15 cm

(2) 21 cm

(3) 20 cm

(4) 15.5 cm

137. In the following figure, AB is a diameter of a circle of radius 6 cm., C and D are points on the diameter, such that AC, CD and BD are equal, Semi circles are drawn with AC and BC as diameters. The area of the shaded region will be .... ($\pi = 3.14$)
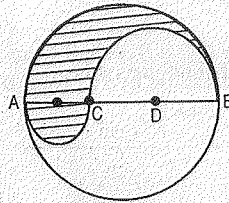
(1) 37.68 cm^2

(2) 43.23 cm^2

(3) 36.68 cm^2

(4) 32.68 cm^2

138. The exact relation for area of a Rhombus ABCD will be .....

(1) $\frac{1}{2}(AC + BD)$

(2) $\frac{1}{2}(AC \times BD)$

(3) $4(AC + BD)$

(4) $\frac{1}{2} \times AB \times BC$

139. In a triangle ABC, which given relation is true for its sides ?

(1) $AB + BC > AC$

(2) $AB + BC < AC$

(3) $AB = BC = CA$

(4) $AB = BC + AC$

140. $\triangle ABC$ is an isosceles with $AB = AC$. If $\angle A = 80°$, then $\angle C = \ldots\ldots$

(1) 80°

(2) 100°

(3) 50°

(4) 40°

141. Area of shaded part is ....
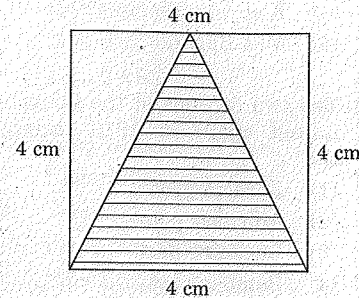
(1) 16 cm^2

(2) 8 cm^2

(3) 4 cm^2

(4) None

142. The ratio of the circumference of two circles is 3:4, then what is the ratio of their corresponding areas ...

(1) $4 : 3$

(2) $9 : 16$

(3) $16 : 9$

(4) $3 : 4$

143. The area of trapezium is 31.5 cm^2 and its parallel sides are 9 cm. and 5 cm, then the distance bewteen parallel sides is .....

(1) 13.5 cm

(2) 5.6 cm

(3) 8.2 cm

(4) 4.5 cm

144. The diameter of a wheel is 35 cm, then its circumference is ......

(1) 110 cm

(2) 220 cm

(3) 95 cm

(4) 100 cm

145. $\left[\frac{5}{3}\right]^{-5} \times \left[\frac{5}{3}\right]^{-11} = \left[\frac{5}{3}\right]^{4x}$, then $x = \ldots$

(1) 8

(2) -8

(3) 4

(4) -4

HISTORY

146. The ash mounds in Deccan belong to ....
    (1) Animal Herders.
    (2) Hunter - Gatherers.
    (3) Early Farmers.
    (4) All of the above.

147. Megasthanese was an ambassador in the court of ....
    (1) Ashoka
    (2) Ajathasatru
    (3) Chandra Gupta
    (4) Mahapadmananda

148. Which among the sixteen Mahajanapadas emerged as a powerful kingdom ?
    (1) Surasena
    (2) Anga
    (3) Magadha
    (4) Kambhoja

149. Who built the town of Thanjavur ?
    (1) Raja Raja I.
    (2) Narasimha Varma I.
    (3) Vijayalaya.
    (4) Rajendra.

150. Who started recruiting muslim fighters to serve him and to train his soldiers in the new modes of warfare ?
    (1) Bukkaraya I
    (2) Devaraya II
    (3) Krishna Devaraya
    (4) Achyutaraya.

151. The mughal emperor, who conquered Golconda, Bijapur is ....
    (1) Akbar
    (2) Shah Jahan
    (3) Aurangazeb
    (4) Jahangir

152. The song "Bhale Tata Mana Bapuji" is in this cinema.....
    (1) Mana Desam
    (2) Donga Ramudu
    (3) Komram Bheem
    (4) Maa Bhoomi

153. The two factions of the Congress united again in 1916 through the ....
    (1) Karachi pact
    (2) Amritsar pact
    (3) Lucknow pact
    (4) Bombay pact

154. Who sub-dued the Palegars and disbanded their armed followers in Rayalaseema ?
    (1) Thomas Munro
    (2) William Bentinck
    (3) Cornwallis
    (4) James Read

155. Who gave the famous slogan "Swaraj is my birth-right, and I shall have it" ?
    (1) Lala Lajapat Roy
    (2) Bipin Chandra Pal
    (3) MK Gandhi
    (4) Bal Gangadhar Tilak

GEOGRAPHY

156. 0° latitude (Equator) does not pass through this continent ?
    (1) Asia
    (2) Africa
    (3) South America
    (4) Australia

157. On which day, does the Sun shine directly over the Tropic of Cancer ?
    (1) June 21st
    (2) December 22nd
    (3) September 23rd
    (4) March 21st

158. Bandar canal takes off from ....
    (1) Nagarjunasagar.
    (2) Srisailam
    (3) Prakasam Barrage
    (4) Pulichintala

159. Who were the first Europeans to be seen by Eskimos from Iceland ?
    (1) British
    (2) Italians
    (3) Vikings
    (4) Mayans

160. Which trees grow in the areas with snowfall ?
    (1) Deciduous forests
    (2) Mangrove forests
    (3) Coniferous forests
    (4) Equatorial evergreen forests

161. Which of the following is a non-metallic mineral ?
    (1) Mica
    (2) Rock salt
    (3) Gypsum
    (4) All the above.

162. Tsunami means .....
    (1) Harbour waves
    (2) Vibration
    (3) Snowfall
    (4) Calamity

163. Who prepared one of the first survey based maps of India ?
    (1) James Rennel
    (2) CE William Lambton
    (3) Hecataeus
    (4) Al Idrisi

164. Find out the wrong statement about river Nile .
    (1) The Nile originates from lake Victoria.
    (2) It flows through the Sahara desert.
    (3) The Nile also flows through Egypt.
    (4) None of the above.

165. Which is the largest country in Europe ?
    (1) Russia
    (2) France
    (3) Italy
    (4) Ukraine

POLITICAL SCIENCE

166. Who is the President of India ?
    (1) Pranab Mukherjee
    (2) Pratibha Patil
    (3) Ram Nath Kovind
    (4) ESL Narasimhan

167. "Joothan" is the autobiography of ....
    (1) Dr. BR Ambedkar
    (2) Omprakash Valmiki
    (3) Bhagya Reddy Varma
    (4) Jyothiba Phule

168. Who questioned "You should be ashamed of this, you have eaten in our home. How can you deny it ? Why did you give me life ?" on caste discrimination ?
    (1) Choka's Karmamela
    (2) Narsi Mehta
    (3) Annamacharya
    (4) Kabir

169. Which amendment of Constitution made education as a fundamental right ?
    (1) 86th amendment
    (2) 90th amendment
    (3) 96th amendment
    (4) 100th amendment

170. According to Sharada Act, 1929; what is the minimum age of marriage for girls ?
    (1) 12 years
    (2) 14 years
    (3) 18 years
    (4) 21 years

171. Who started "Jagan Mitra Mandali" to spread awareness among the dalits by using popular folk arts ?
    (1) Arigey Ramaswamy
    (2) Eshwari Bai
    (3) Narayana Guru
    (4) Bhagya Reddy Varma

172. When was the first meeting for Constituent Assembly held ?
    (1) December 1946
    (2) August 1947
    (3) January 1949
    (4) March 1948

173. Socialist means ....
    (1) The head of the state is an elected person and not a hereditary.
    (2) The country should strive to reduce and end all kinds of inequalities.
    (3) Government will not favour any religion.
    (4) None of the above.

174. Rajya Sabha members are elected by the ......
    (1) Members of Legislative Assemblies.
    (2) Members of Legislative Councils.
    (3) Members of Lok Sabha.
    (4) All of the above.

175. Number of Lok Sabha Constituencies in Andhra Pradesh is .....
    (1) 17   (2) 22
    (3) 25   (4) 29

ECONOMICS

176. Factory system was started .....
    (1) Between 1750 AD - 1850 AD.
    (2) Between 1850 AD - 1950 AD.
    (3) Between 1900 AD - 2000 AD.
    (4) Between 1800 AD - 1900 AD.

177. The health employee working in the sub-centre, is called .....
    (1) Asha worker.
    (2) Multi purpose health Assistant.
    (3) Qualified Doctor.
    (4) All the above.

178. One of the early bankers of India, Jagath Seths belong to ....
    (1) West Bengal
    (2) Maharashtra
    (3) Tamilnadu
    (4) Punjab

179. Who devised a method of laying the road using broken stones ?
    (1) John Loudon McAdam
    (2) George Stephenson
    (3) James Watt
    (4) Boulton

180. Who is responsible for printing and circulating the money ?
    (1) Reserve Bank of India.
    (2) Finance Minister
    (3) State Bank of India.
    (4) Prime Minister of India.