SPACE FOR ROUGH WORK

Roll No. : | | | | | | | | | | | | |

NMMS(E)

ENGLISH A

Sl No. : 150837

NMMS - NOVEMBER, 2018

MENTAL ABILITY AND SCHOLASTIC APTITUDE TEST

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

Time : Part - II : 90 Minutes — *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 **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.

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.**

This Booklet consists of 27 Pages for 180 Questions + 03 Pages of Rough Work + 02 Title Pages i.e. Total 32 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 **HB Pencil**.

Directions: Questions (1 to 10):

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.

1. 380, 188, 92, ___?___, 20, 8, 2
   (1) 80 (2) 60 (3) 44 (4) 72

2. 3, 7, 6, 5, 9, 3, 12, 1, 15, ___?___
   (1) 18 (2) 13 (3) –1 (4) 3

3. 23, 21, 24, 19, 26, ___?___
   (1) 29 (2) 28 (3) 17 (4) 15

4. 5, 12, 23, 50, 141, ___?___
   (1) 415 (2) 430 (3) 439 (4) 488

5. 4, 11, 19, 41, ___?___, 161
   (1) 62 (2) 108 (3) 79 (4) 90

6. 9, 5, 6, 10.5, 23, ___?___
   (1) 50 (2) 65 (3) 70 (4) 60

7. 1, 20, 58, 134, 286, ___?___
   (1) 600 (2) 590 (3) 580 (4) 570

8. 68, 117, 61, 124, 54, ___?___
   (1) 141 (2) 121 (3) 151 (4) 131

9. 10, 5, 5, 10, 40, ___?___
   (1) 350 (2) 320 (3) 360 (4) 370

10. 8, 7, 12, ___?___, 128, 635
(1) 42 (2) 24 (3) 33 (4) 26

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. $56 = 7 + 2 - 16$
(1) +, ×, + (2) −, +, × (3) +, ×, = (4) ÷, −, −

12. $34 \times 2 = 17 \div 34$
(1) −, ×, ÷ (2) +, +, + (3) −, ÷, × (4) ÷, +, =

13. $10 \times 5 = 2 \div 4$
(1) ÷, +, = (2) −, +, ÷ (3) ×, −, = (4) =, ×, −

14. $210 \div 15 = 15 - 15$
(1) +, −, × (2) +, =, + (3) −, ×, × (4) =, ×, −

15. $900 = 30 \div 2 \times 15$
(1) ×, =, + (2) +, =, × (3) +, ÷, × (4) =, ×, ×

16. $729 = 9 + 9 \times 9$
(1) +, +, + (2) =, ×, ÷ (3) =, ÷, × (4) =, ×, ×

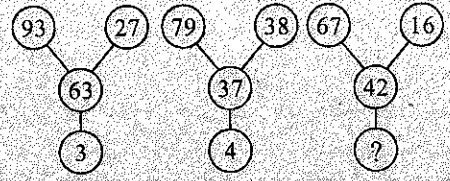
17. $15 \div 10 = 2 \times 3$
(1) ×, ÷, + (2) ×, +, − (3) =, +, + (4) =, ÷, +

18. $64 \div 48 = 4 \div 4$
(1) =, +, × (2) =, −, × (3) ÷, +, + (4) ×, ÷, ÷

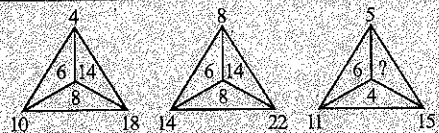
19. $30 = 2 + 9 + 12$
(1) =, +, × (2) =, ×, + (3) ÷, ×, − (4) +, ×, ÷

20. $196 \div 13 + 13 = 27$
(1) =, +, × (2) =, ÷, × (3) +, ÷, + (4) =, ×, +

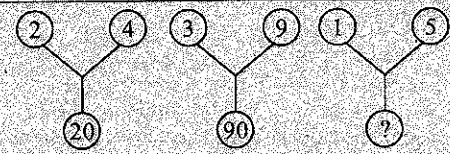
Directions: Questions (21 to 30):
In each of the following questions, a set of figures carrying certain characters is given. Assuming that the characters in each set follow a similar pattern, find the missing character in each case.

21. 

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

22. 

(1) 8 (2) 14 (3) 10 (4) 6

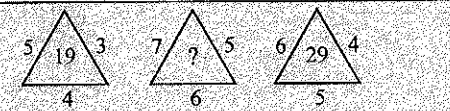
23. 

(1) 20 (2) 25 (3) 26 (4) 75

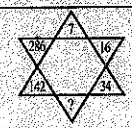
24.

27	22	50
13	12	26
9	2	?

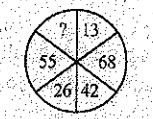
(1) 12 (2) 39 (3) 18 (4) 24

25. 

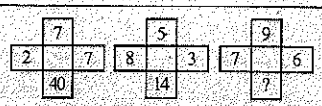
(1) 25 (2) 47 (3) 37 (4) 41

26. 

(1) 70 (2) 68 (3) 56 (4) 92

27. 

(1) 41 (2) 37 (3) 29 (4) 25

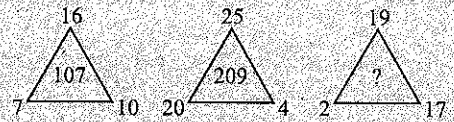
28. 

(1) 72 (2) 68 (3) 82 (4) 96

29.

42	(21)	22
78	(?)	84
162	(18)	99

(1) 12 (2) 13 (3) 60 (4) 50

30. 

(1) 68 (2) 93 (3) 175 (4) 217

Directions: Questions (31 to 40):

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.

31. $99999 + 9999 + 999 + 99 = ?$

(1) 11096 (2) 111096 (3) 111196 (4) 110096

32. $778 + 64 - 214 - 128 + 174 = ?$

(1) 705 (2) 613 (3) 694 (4) 674

33. $13.141 + 31.417 - 27.118 = ?$

(1) 16.441 (2) 17.543 (3) 17.490 (4) 17.440

34. $\frac{x}{\sqrt{128}} = \frac{\sqrt{162}}{x}$, $x =$

(1) 12 (2) 144 (3) 14 (4) 196

35. $?^3 + 32 = 54$

(1) 318 (2) 12 (3) 14 (4) 16

36. $\sqrt{5^4} \times 14 - 6 \times 7 + 4^x = 18^2$, $x =$

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

37. $496 \div 0.6 \times 0.5 = ?$ (approximately)

(1) 413 (2) 595 (3) 148 (4) 653

38. $151.011 - 419.999 + 649.991 = ?$

(1) 381.003 (2) 420.03 (3) 358.3 (4) 410.3

39. $\frac{9^2 + 8^2}{25} = ?$

(1) 2.8 (2) 4.8 (3) 5.8 (4) 6

40. $0.009 \times 0.002 = ?$

(1) 0.18 (2) 0.00018 (3) 0.0018 (4) 0.000018

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 4 alternatives, having the same relation with this word as the words of the given pair. Choose the correct alternatives.

41. Burn : Ointment : : Grief : ?

(1) Sorrow (2) Adversity (3) Consolation (4) Pity

42. Pen : Stationery : : Chair : ?

(1) Wood (2) Rest (3) Room (4) Furniture

43. Dam : Water : : Godown : ?

(1) Sweets (2) Crab (3) Grain (4) Grass

44. Crime : Court : : Disease : ?

(1) Lawyer (2) Punishment (3) Hospital (4) Doctor

45. Millionaire : Wealth : : Genius : ?

(1) Capability (2) Smartness (3) Intelligence (4) Awareness

46. Page : Book : : Brick : ?

(1) Heap (2) Building (3) Clay (4) Mason

47. Driving : Bus : : Flying : ?

(1) Air (2) Kite (3) Bird (4) Aeroplane

48. Bullet : Rifle : : Arrow : ?
(1) Archer (2) Bow (3) Target (4) Cord

49. House : Mason : : Furniture : ?
(1) Wood (2) Chair (3) Table (4) Carpentor

50. Needle : Thread : : Pen : ?
(1) Write (2) Ink (3) Cap (4) Paper

Directions: Questions (51 to 60):
In these questions a figure (X) is given with three parts and fourth with a ? mark. Find the fourth part from the adjacent figures to complete the figure.

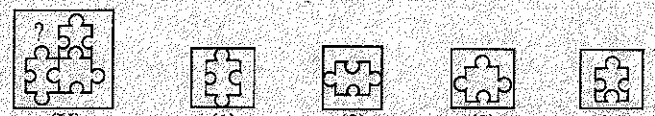
51. 
(X) (1) (2) (3) (4)
(1) 1 (2) 2 (3) 3 (4) 4

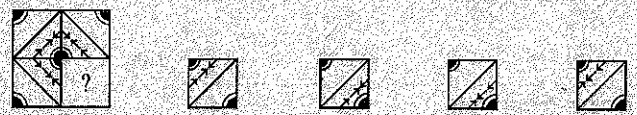
52. 
(X) (1) (2) (3) (4)
(1) 1 (2) 2 (3) 3 (4) 4

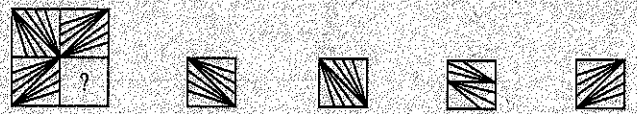
53. 
(X) (1) (2) (3) (4)
(1) 1 (2) 2 (3) 3 (4) 4

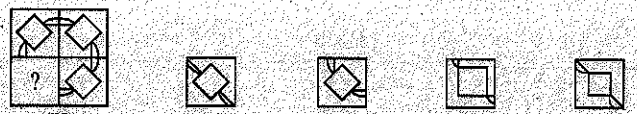
54. 
(X) (1) (2) (3) (4)
(1) 1 (2) 2 (3) 3 (4) 4

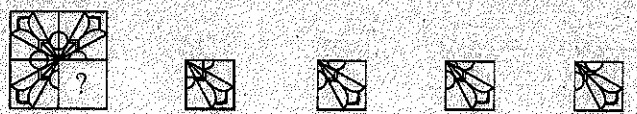
55. 
(X) (1) (2) (3) (4)
(1) 1 (2) 2 (3) 3 (4) 4

56. 
(X) (1) (2) (3) (4)
(1) 1 (2) 2 (3) 3 (4) 4

57. 
(X) (1) (2) (3) (4)
(1) 1 (2) 2 (3) 3 (4) 4

58. 
(X) (1) (2) (3) (4)
(1) 1 (2) 2 (3) 3 (4) 4

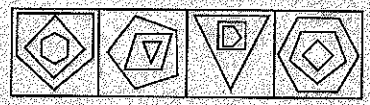
59. 
(X) (1) (2) (3) (4)
(1) 1 (2) 2 (3) 3 (4) 4

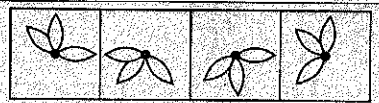
60. 
(X) (1) (2) (3) (4)
(1) 1 (2) 2 (3) 3 (4) 4

Directions: Questions (61 to 70):
In each of the following questions, there are 4 figures. Three of them are similar in a certain way but one is not like the other three. Find out, which one of the figures different from other.

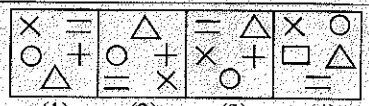
61. 
(1) (2) (3) (4)
(1) 1 (2) 2 (3) 3 (4) 4

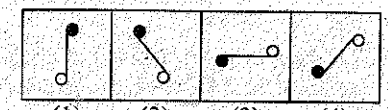
62. 
(1) (2) (3) (4)
(1) 1 (2) 2 (3) 3 (4) 4

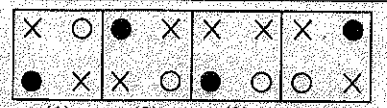
63. 
(1) (2) (3) (4)
(1) 1 (2) 2 (3) 3 (4) 4

64. 
(1) (2) (3) (4)
(1) 1 (2) 2 (3) 3 (4) 4

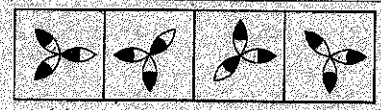
65. 
(1) (2) (3) (4)
(1) 1 (2) 2 (3) 3 (4) 4

66. 
(1) (2) (3) (4)
(1) 1 (2) 2 (3) 3 (4) 4

67. 
(1) (2) (3) (4)
(1) 1 (2) 2 (3) 3 (4) 4

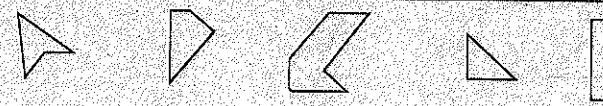
68. 
(1) (2) (3) (4)
(1) 1 (2) 2 (3) 3 (4) 4

69. 
(1) (2) (3) (4)
(1) 1 (2) 2 (3) 3 (4) 4

70. 
(1) (2) (3) (4)
(1) 1 (2) 2 (3) 3 (4) 4

Directions: Questions (71 to 80):
Select from the given 5 alternatives when filled into each other would form a complete square.

71. 
(1) (2) (3) (4) (5)
(1) 1, 4, 5 (2) 2, 3, 4 (3) 1, 3, 4 (4) 2, 3, 5

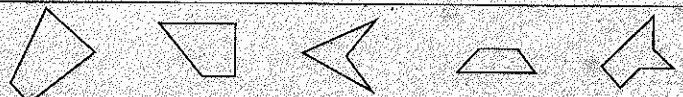
72. 
(1) (2) (3) (4) (5)
(1) 1, 4, 5 (2) 1, 3, 5 (3) 2, 3, 5 (4) 2, 3, 4

73.

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

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

74.



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

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

75.

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

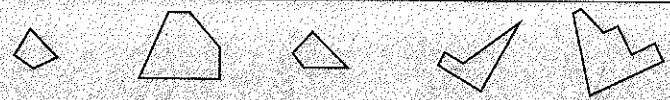
(1) 1, 4, 5 (2) 2, 3, 4 (3) 2, 4, 5 (4) 1, 3, 5

76.

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

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

77.



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

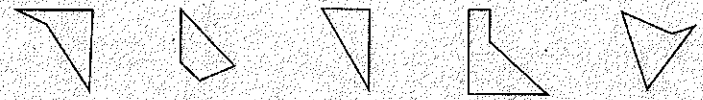
(1) 1, 2, 4 (2) 2, 3, 4 (3) 3, 4, 5 (4) 2, 3, 5

78.

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

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

79.



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

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

80.

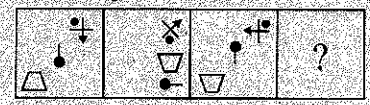
(1) (2) (3) (4) (5)

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

Directions: Questions (81 to 90):

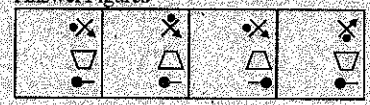
In each of the following questions, the second figure in the first unit of the problem figure bears a certain relationship to the first figure. Similarly one the answer figure bears the same relationship to the first figure of second unit of problem figures you have to therefore locate the figure, which would fit the question mark.

81. Problem Figures



(A) (B) (C) (D)

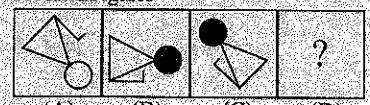
Answer Figures



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

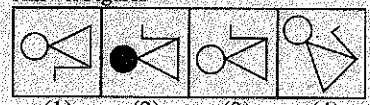
(1) 1 (2) 2 (3) 3 (4) 4

82. Problem Figures



(A) (B) (C) (D)

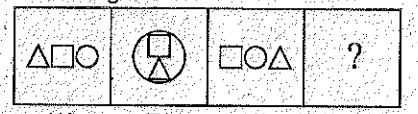
Answer Figures



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

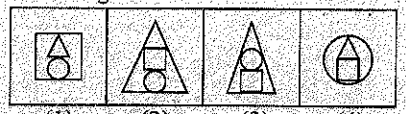
(1) 1 (2) 2 (3) 3 (4) 4

83. Problem Figures



(A) (B) (C) (D)

Answer Figures



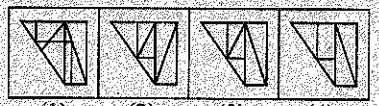
(1) (2) (3) (4)

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

84. Problem Figures

(A) (B) (C) (D)

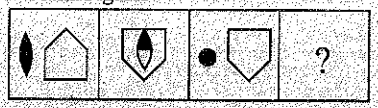
Answer Figures



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

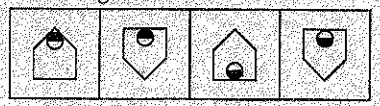
(1) 1 (2) 2 (3) 3 (4) 4

85. Problem Figures



(A) (B) (C) (D)

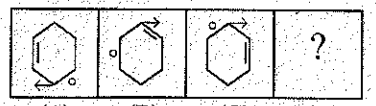
Answer Figures



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

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

86. Problem Figures



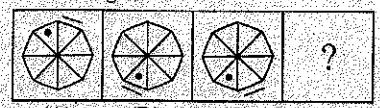
(A) (B) (C) (D)

Answer Figures

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

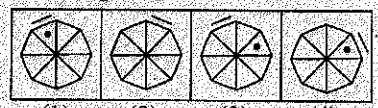
(1) 1 (2) 2 (3) 3 (4) 4

87. Problem Figures



(A) (B) (C) (D)

Answer Figures



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

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

88. Problem Figures

(A) (B) (C) (D)

Answer Figures

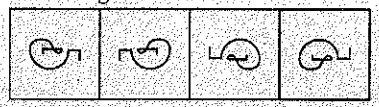
(1) (2) (3) (4)

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

89. Problem Figures

(A) (B) (C) (D)

Answer Figures



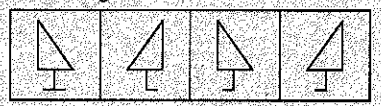
(1) (2) (3) (4)

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

90. Problem Figures

(A) (B) (C) (D)

Answer Figures



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

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

SPACE FOR ROUGH WORK

SPACE FOR ROUGH WORK

Part - II : SCHOLASTIC APTITUDE TEST

Time : 90 Minutes **Max. Marks : 90**

Note :

i) Subject, Question No. and Marks allotted:

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

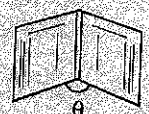
ii) **SHADE** the circle having the correct alternatives in the OMR Answer Sheet provided, from amongst the ones given against the corresponding questions in the Question Paper Booklet. For shading the circles, use a **HB Pencil**.

PHYSICS

91. 68°F = _____ °C
(1) 36 (2) 0 (3) 20 (4) 68

92. x [N S] y K [S N] L
A B
A, B are two bar magnets as shown in the figure. Let (x, y); (K, L) are the edges of the poles respectively. Then which of the following is true?
(1) y and K attract each other (2) y and L repel each other
(3) x and K attract each other (4) x and L attract each other

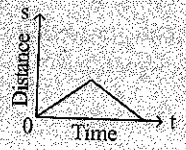
93. θ is the angle between the two plane mirrors attached as shown in the figure. If the system forms 3 images then the value of θ is _____

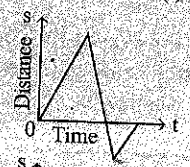


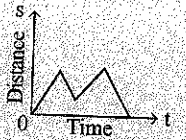
(1) 120° (2) 96°
(3) 40° (4) 180°

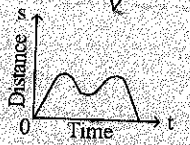
94. In a house everyday they are using six, 100W bulbs for 3 hours, five 60W bulbs for 6 hours, five 40W bulbs for 2 hours. In the month of August and September let they used in the same way. What is the difference in units consumed by them in these two months?
(1) 120 (2) 4000 (3) 124 (4) 4

95. Which of the following graph doesn't indicate the relation of time (t) and distance(s)

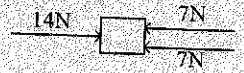
(1) 

(2) 

(3) 

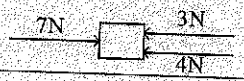
(4) 

96. Which of the following system gives 7N as resultant force?

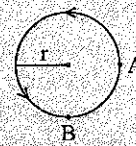
(1) 

(2) 

(3) 

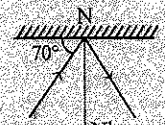
(4) 

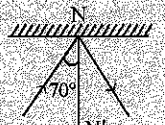
97. An object moving in a circular path and covered 3/4th distance on the perimeter of the path to reach from A and B. If 'r' is radius of the circular path, then the ratio between distance travelled and displacement by the object between A and B is

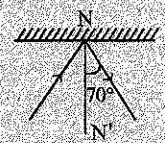


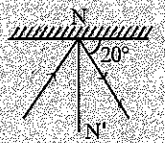
(1) $2\sqrt{2}\pi : 3$ (2) $3\sqrt{2} : 2\pi$
(3) $3\sqrt{2}\pi : 2\sqrt{2}$ (4) $3\pi : 2\sqrt{2}$

98. A light ray reflected as plane surface and angle of reflection is 70°, which of the following do not represent the same? (NN' is normal to the plane surface)

(1) 

(2) 

(3) 

(4) 

99. When a glass rod is rubbed with a silk cloth then charges deposited on them respectively as follows:
(1) Positive charge on silk, negative charge on glass rod
(2) Negative charge on silk, positive charge on glass rod
(3) Positive charge on both
(4) Negative charge on both

100. The reason for hot air moves to upward direction because it:
(1) Occupies larger place, density increases
(2) Occupies smaller place, density increases
(3) Occupies larger place, density reduce
(4) Occupies smaller place, density reduce

101. The intensity of the sound 1000 times more powerful than that total silence is _____
(1) 1000 dB (2) 3 dB (3) 60 dB (4) 30 dB

102. Which of the following is called as "rain gauge"?
(1) Udo meter (2) Pluviometer (3) Ombrometer (4) All the above

CHEMISTRY

103. In the process of electroplating the result is _____
   a) Concentration of electrolyte unchange
   b) Mass of the anode decreases
   c) Mass of the cathode decreases
   d) Concentration of electrolyte decreases
   (1) a & b (2) b & d (3) a & c (4) c & d

104. Which of the following acid is not hazardous to drink
   (1) Concentrated Nitric-Acid (2) Carbonic Acid
   (3) Concentrated Sulphuric Acid (4) Hydrochloric Acid

105. When Magnesium burns in the presence of Oxygen, it forms Magnesium Oxide in the form of powder ash; when it dissolved in water, a New substance is formed. What is the nature of this substance?
   (1) Acidic (2) Basic (3) Neutral (4) Can't confirm

106. Match the following:

Set A		Set B
i)	Burning of camphor	a) Physical change
ii)	Heating of sugar solution upto formation of a solid	b) Galvanisation
iii)	Evaporation of camphor placed on a open tray	c) Crystallisation
iv)	Depositing of one metal on another metal	d) Chemical change

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

107. When copper utensils are exposed to air, we find greenish coat on them, due to reaction of copper with _____
   (1) oxygen only (2) oxygen and moisture
   (3) oxygen, carbondioxide and moisture (4) oxygen, hydrogen and moisture

108. Which of the following is Fire extinguisher?
   (1) Oxalic Acid (2) Copper Sulphate
   (3) Ammonium Hydroxide (4) Aluminium Hydroxide

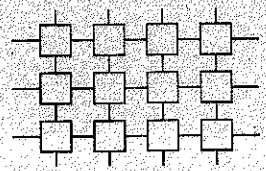
109. Highly melliable metal among the given metals
   (1) Iron (2) Zinc (3) Gold (4) Copper

110. Match the following:

Set I		Set II
i)	Rapid combustion	a) Burning of crackers
ii)	Spontaneous combustion	b) Burning of wood
iii)	Explosion	c) Burning of camphor
iv)	Combustion	d) Burning of white phosphorous

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

111. Choose the incorrect statement
   (1) PET and HDPE are commonly recycled
   (2) PS (code 6), used for making coffee cups, egg boxes etc
   (3) Sanitary diapers and bandages are made of Nylon
   (4) Firemen wear dress is made of melamine fabric

112.  (Cross-linked arrangement of monomers)

The arrangement of monomers in the above figure indicates _____ polymer
   (1) Nylon (2) PET (3) HDPE (4) Bakelite

113. Example for Non-Toxic and renewable fuel is _____
   (1) Bio-Diesel (2) CNG (3) Gasoline (4) LPG

BIOLOGY

114. Name the cell that transfers messages
(1) Bone cell (2) Nerve cell (3) Muscle cell (4) Blood cell

115. The last level in the food chain is made up of ____
(1) Decomposers (2) Consumers
(3) Producers (4) None of the above

116. Global grain is ____
(1) Wheat (2) Oats (3) Pulses (4) Rice

117. Root nodules of leguminosae family plants contains an organism called ____
(1) Plasmodium (2) Penicillium (3) Rhizobium (4) Clostridium

118. The human sperm gets energy for its motility from ____
(1) Head (2) Mitochondria (3) Neck (4) Tail

119. Match the item in Part - I with Part - II

Part - I	Part - II
a) Vinegar	i) Calcium hydroxide
b) Baking Soda	ii) Sodium chloride
c) Lime water	iii) Acetic acid
d) Common Salt	iv) Sodium bicarbonate

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

120. Instrument used to measure wind speed and direction.
(1) Thermometer (2) Rain Gauge (3) Anemometer (4) Periscope

121. Which of the below is a male harmone?
(1) Estrogen (2) Progesteron (3) Adrenaline (4) Testosterone

122. Who invented antibiotic tetracycline?
(1) Dr. Jonas Salk (2) Dr. Yellapragada Subba Rao
(3) Dr. Alexander Flemming (4) Dr. Edward Jenner

123. Prof. J. K. Kurian is popularly known as
(1) Father of Green revolution (2) Father of White revolution
(3) Father of Blue revolution (4) Father of Biology

124. Disease caused by Protozoan ____
(1) AIDS (2) Elephantiasis (3) Malaria (4) Typhoid

125. Normal temperature of the human body ____
(1) 98.4° F (2) 96.4° F (3) 95.4° F (4) 94.8° F

MATHEMATICS

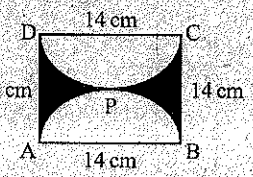
126. If $\left(\frac{2}{9}\right)^{3} \times \left(\frac{2}{9}\right)^{-6} = \left(\frac{9}{2}\right)^{1-2m}$ then $m =$
(1) 2 (2) 1 (3) –1 (4) 0

127. Three numbers are in the ratio 1:2:3. The sum of their cubes is 98784. Then the numbers are
(1) 12, 24, 36 (2) 14, 28, 42
(3) 16, 32, 48 (4) 13, 26, 39

128. A boy has 3 boxes of different fruits. Box 'A' weights $2\frac{1}{2}$ kg more than box 'B' and box 'C' weights $10\frac{1}{4}$ kg more than box B. The total weight of the boxes is $48\frac{3}{4}$ kg. Then the weight of box 'A' is
(1) 12 kg (2) $22\frac{1}{4}$ kg
(3) $34\frac{1}{4}$ kg (4) $14\frac{1}{2}$ kg

129. If A = x% of y and B = y% of x then which of the following is true?
(1) A < B (2) A > B
(3) A = B (4) If $x < y$ then A > B

130. From the adjacent figure area of shaded region is
(1) 42 cm^2
(2) 196 cm^2
(3) 154 cm^2
(4) 350 cm^2



131. Two natural numbers are such that their product, sum and difference are in the ratio 24:7:1. The product of the two numbers, is
(1) 48 (2) 24
(3) 12 (4) 16

132. The population of a town 2 years ago was 62500. Due to migration to cities, it decreases every year at the rate of 4% per annum. The present population is
(1) 60,600 (2) 12,500
(3) 10,000 (4) 57,600

133. Ramu was given an increment of 10% on his salary. His new salary is ₹ 3575. The salary of Ramu before increment is

(1) ₹ 3217.50 (2) ₹ 3250

(3) ₹ 3932.50 (4) ₹ 3500

134. If $\frac{1}{x+1}+\frac{1}{x+2}=\frac{2}{x+10}$ then $x=$

(1) $\frac{-26}{17}$ (2) 1 (3) $\frac{17}{26}$ (4) $\frac{26}{17}$

135. If the mean of a, b, c is M and ab+bc+ca = 0. Then mean of a^2, b^2, c^2 is

(1) $4M^2$ (2) $5M^2$

(3) $3M^2$ (4) M^2

136. A right angled triangle has all its sides are intersects and its area is 30 sq.cm. then the perimeter of the triangle in cms. is

(1) 30 (2) 42 (3) 64 (4) 45

137. The value of $\frac{2^n+2^{n-1}}{2^{n+1}-2^n}$ is

(1) $\frac{2^{n-1}}{2^{n+1}}$ (2) $\frac{3}{2}$

(3) $\frac{2}{3}$ (4) 2^n

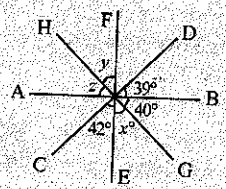
138. From the figure $\angle x+\angle y=$

(1) 116°

(2) 120°

(3) 99°

(4) 118°



139. A certain amount of marbles are given to three students P, Q and R in the ratio 3:4:5. If P and Q receive a total of 315 marbles then the marbles received by R

(1) 225 (2) 79

(3) 105 (4) 300

140. Product of $\left(1-\frac{1}{2}\right)\left(1-\frac{1}{3}\right)\left(1-\frac{1}{4}\right)\ldots\ldots\left(1-\frac{1}{p}\right)=$

(1) 1 (2) $1-\frac{2}{p}$

(3) $\frac{p-1}{p}$ (4) $\frac{1}{p}$

141. The least number which when divided by 16, 18, 21 leaves remainders 3, 5 and 8 is

(1) 1008 (2) 995 (3) 1021 (4) 990

142. The mean of 5 numbers is 27. If one more number is included then the mean is 25. The included number is

(1) 15 (2) 57 (3) 52 (4) 17

143. If $(4x+5):(3x+11)=13:17$ then $x=$

(1) −2 (2) 122 (3) 2 (4) 1

144. Sonu's father is thrice as old as Sonu. After 12 years he will be just twice his daughter. Then the Sonu's present age is (years)

(1) 10 (2) 12 (3) 15 (4) 11

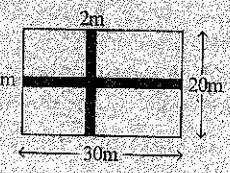
145. A rectangular lawn is 30 m by 20 m. It has two roads each 2m wide running in the middle of it as shown in the figure. Then the area of roads is

(1) 96 m^2

(2) 100 m^2

(3) 600 m^2

(4) 504 m^2



HISTORY

146. Who discovered the sea route to India in 1498?
(1) Columbus (2) Vasco da Gama (3) Magellan (4) Marco polo

147. A temple for goddess nishumbhasudini was built by:
(1) Vijayalaya (2) Aditya (3) Rajendra I (4) Rajaraja I

148. "..... you have a broad and beautiful street full of fine houses.... and these houses belong to merchants, and there you find all sorts of rubies and diamonds... and clothes of every sort on the earth.... in the evening you have a fair where they sell horses, fruits, vegetables, wood etc" - Whose description was this about Vijayanagara City?
(1) Nuniz (2) Paes (3) Abdul Razzak (4) Nicolo Conti

149. Which of the following was the division of share in profits between James Watt and Boulton?
(1) $\frac{1}{2}$ to watt and $\frac{1}{2}$ to Boulton (2) $\frac{2}{3}$ to watt and $\frac{1}{3}$ to Boulton
(3) $\frac{2}{3}$ to Boulton and $\frac{1}{3}$ to watt (4) $\frac{3}{4}$ to Boulton and $\frac{1}{4}$ to watt

150. Who among the following was not one of the 'Astadiggajas'?
(1) Ramaraja Bhushana (2) Ayyalaraju Ramabhadrudu
(3) Pingali Surana (4) Pavuluri Mallana

151. The last Mughal Emperor was:
(1) Aurangzeb (2) Jahandar Shah Zafar
(3) Muhammad Shah Zafar (4) Bahadur Shah Zafar

152. 'Zabt' was not possible in these provinces:
(1) Gujarat only (2) Bengal only
(3) Both Gujarat and Bengal (4) None of these

153. Under which settlement was every piece of land given a survey number and legal ownership of that was fixed?
(1) Ryotwari settlement (2) Permanent settlement
(3) Both of these settlements (4) None of these

154. The First World War broke out in:
(1) 1914 (2) 1916 (3) 1918 (4) 1920

155. In which session of the Congress was it declared that the objective of the Congress was to achieve Swarajya by all legitimate and peaceful means?
(1) Bombay (2) Amritsar (3) Lahore (4) Nagpur

GEOGRAPHY

156. Out of the following, where does it rain very heavily?
(1) on the mountains (2) on the plains
(3) on the plateaus (4) on the oceans

157. Mediterranean sea separates:
(1) Asia and America (2) Africa and Australia
(3) Europe and Asia (4) Europe and Africa

158. 'Polder' type of agriculture is practiced predominantly in:
(1) England (2) Poland (3) Holland (4) Spain

159. Which of the following was an independent country by 1913?
(1) Liberia (2) Nigeria (3) Egypt (4) Angola

160. If the average annual rainfall is 110 centimeters, then it will be considered as:
(1) Low rain fall (2) Moderate rain fall
(3) High rain fall (4) Very high rain fall

161. The day which is called an equinox is:
(1) March 21 (2) September 22 (3) June 21 (4) December 22

162. In which of the following sets, are the places arranged from south to north with reference to their location?
(1) Nigeria, France, Arctic Tundra (2) Arctic Tundra, France, Nigeria,
(3) France, Nigeria, Arctic Tundra (4) Arctic Tundra, Nigeria, France

163. Most of the forests of Andhra Pradesh fall in this category:
(1) Deciduous forests (2) Thorny forests
(3) Evergreen forests (4) Mangrove forests

164. The Sun never sets in Tundra region through out:
(1) February, March and April (2) May, June and July
(3) August, September and October (4) November, December and January

165. Aluminum is extracted from:
(1) Bauxite (2) Mica (3) Chrome (4) Barytes

POLITICAL SCIENCE

166. The National Voters Day is celebrated on:
(1) November 25 (2) December 25 (3) January 25 (4) February 25

167. The President of India appoints the Chief Election Commissioner under the constitutional article:
(1) 324(2) (2) 324(4) (3) 324(6) (4) 324(8)

168. The sentence "May God protect our people" is written in the preamble of constitution of:
(1) India (2) America (3) Japan (4) South Africa

169. In India, who among the following is/are elected directly?
(1) President (2) Members of Lok Sabha
(3) Vice President (4) Members of Rajya Sabha

170. Uttar Pradesh has 80 Lok Sabha constituencies while Meghalaya has only two Lok Sabha constituencies. The reason for this is:
(1) Uttar Pradesh is a plain region while Meghalaya is a mountainous region.
(2) Uttar Pradesh has a larger population while Meghalaya has a smaller population.
(3) Uttar Pradesh is a developed region while Meghalaya is a backward region.
(4) There is not any specific reason for this.

171. Which of the following sentences is correct?
(1) Bail is not a right of the accused
(2) FIR is filed in the court
(3) The police is not part of judiciary
(4) All the civil and criminal cases are taken up by the police

172. A law making it compulsory to give official information was made for the first time in the state of:
(1) Rajasthan (2) Gujarat (3) Tamilnadu (4) Andhra Pradesh

173. Which of the following states does not have a bicameral legislature?
(1) Andhra Pradesh (2) Telangana (3) Maharastra (4) Kerala

174. During national emergency, the term of Legislative Assembly of a state can be extended by:
(1) 3 months (2) 6 months (3) 9 months (4) 12 months

175. The first headmistress of the country's first school for girls was:
(1) Savitri Bai Phule (2) Tara Bai Shinde
(3) Rama Bai Saraswathi (4) Shanta Bai Kamble

ECONOMICS

176. Nidhi has a hundred rupee note with her. She saw a promise on that note which says, "I promise to pay the bearer the sum of hundred rupees". Who signs that promise?
(1) The Finance Minister of India
(2) The President of India
(3) The Governor of Reserve Bank of India
(4) Chairman's of National Banks

177. Which of the following is the most important contributor to poverty in India?
(1) Laziness of the people (2) Lack of regular employment
(3) Mal nutrition (4) Giving importance to agriculture

178. Which constitutional article mentions about 'Right to Work'?
(1) 41 (2) 21 (3) 19 (4) 17

179. For how many hours does a paper mill run in a day?
(1) 8 (2) 12 (3) 16 (4) 24

180. Consider the following statements and select the correct answer using the code given below.
A) Public Transport can help in reducing pollution.
B) Use of helmets and seat belts can avoid many life risks.
(1) Only A is correct
(2) Only B is correct
(3) Both A and B are correct
(4) Neither A nor B is correct

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