

DO NOT OPEN THE SEAL UNTIL INSTRUCTED TO DO SO.

Q. Booklet Code **B**

Candidate's Roll Number

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ENGLISH

Sl. No.: **12470**

NMMS - FEBRUARY 2021

MENTAL ABILITY AND SCHOLASTIC APTITUDE TEST

Time Part - I : 90 Minutes

Maximum Marks : 90

Time Part - II : 90 Minutes

Maximum Marks : 90

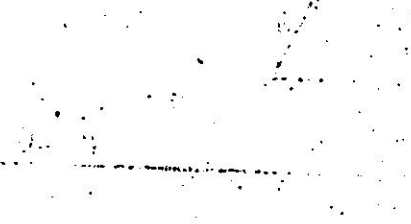
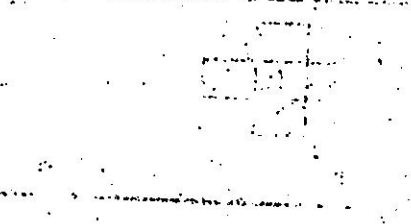
Instructions to the Candidates

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

1. Please write your Center 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 Center 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 Center 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 the 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.

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Part - I : MENTAL ABILITY TEST

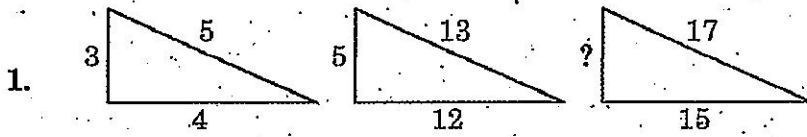
Time : 90 Minutes

Max. Marks : 90

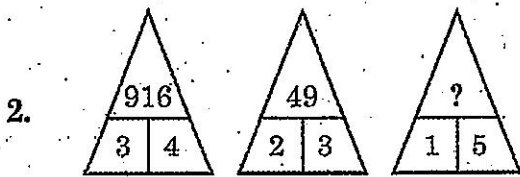
Note : SHADE the correct alternatives in the OMR Answer Sheet provided from amongst the ones given against the corresponding questions in the Question Paper Booklet. For shading the circles, use a **Blue or Black Ballpoint Pen**.

Direction : Questions (1 to 10) :

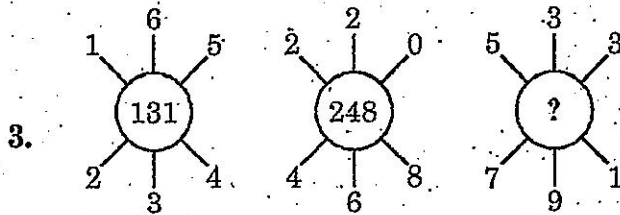
In each of the following questions, a set of figures carrying certain characters given. Assuming that the characters in each set follow a similar pattern, find the missing character in each case.



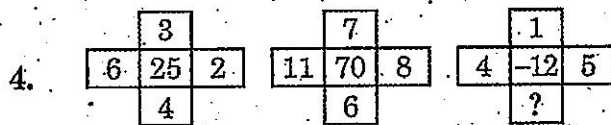
- (1) 2 (2) 6 (3) 8 (4) 64



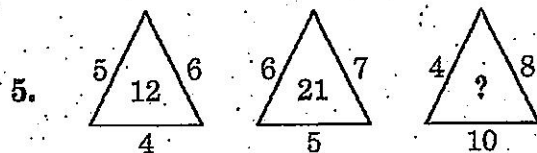
- (1) 125 (2) 215 (3) 251 (4) 512



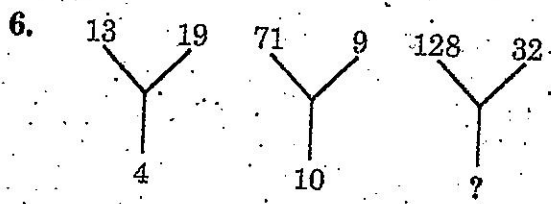
- (1) 132 (2) 262 (3) 274 (4) 320



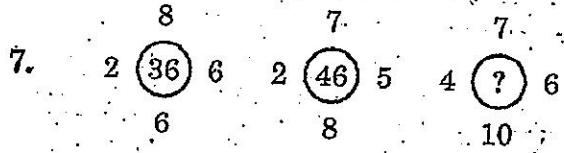
- (1) 1 (2) 2 (3) 6 (4) 10



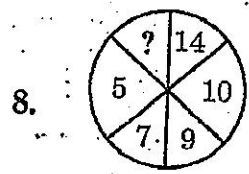
- (1) 22 (2) 30 (3) 32 (4) 34



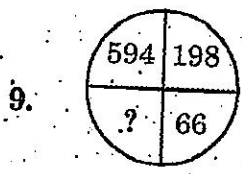
- (1) 10 (2) 15 (3) 20 (4) 25



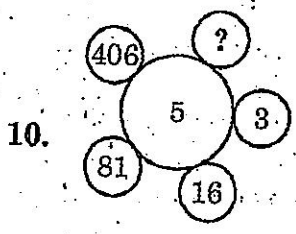
- (1) 42 (2) 46 (3) 48 (4) 50



- (1) 2 (2) 5 (3) 4 (4) 18



- (1) 11 (2) 12 (3) 22 (4) 33



- (1) 1 (2) 731 (3) 1625 (4) 2031

Direction : Questions (11 to 20) :

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.

11. $88888 + 8 + 88 + 8888 + 888 = ?$
 (1) 9876 (2) 98760 (3) 98766 (4) 98666

12. $992 \div 0.4 \times 0.5 = ?$
 (1) 1204 (2) 1200 (3) 1202 (4) 1240

13. $(2^0 + 3^0) \times 4^0 = ?$

(1) 2

(2) 3

(3) 4

(4) 6

14. $\frac{(54)^2 - (45)^2}{54 + 45} = ?$

(1) 1

(2) 4

(3) 9

(4) 25

15. $0.013 \times 0.0008 = ?$

(1) 0.0000104

(2) 0.000104

(3) 0.00104

(4) 0.0104

16. $\frac{(4)^3 + (6)^2}{25} = ?$

(1) 4

(2) 6

(3) 10

(4) 5

17. $13.194 + 31.456 - 16.451 = ?$

(1) 28.19

(2) 28.1999

(3) 28.191

(4) 28.199

18. If $\frac{x}{\sqrt{256}} = \frac{\sqrt{625}}{x}$, then $x = ?$

(1) 4

(2) 5

(3) 20

(4) 25

19. $549.991 - ? = 129.992$

(1) 419.999

(2) 491.999

(3) 419.991

(4) 419.919

20. $(?)^3 \div 27 = 27$

(1) 9

(2) 81

(3) 729

(4) 3

Direction : Questions (21 to 30) :

In each of the following questions, there is a certain relationship between two given words on one side of :: and one word is given on the 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.

21. Clock : Time :: Thermometer : ?

(1) Heat

(2) Energy

(3) Radiation

(4) Temperature

22. Muslims : Mosque :: Christians : ?

(1) Temple

(2) Gurudwara

(3) Church

(4) Golden temple

23. Seeds : Plants :: Buds : ?

(1) Roots

(2) Leaves

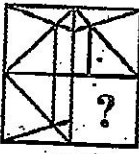




(3) Stem

(4) Flowers

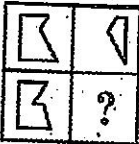




24. Court : Justice :: School : ?
 (1) Teacher (2) Student (3) Head Master (4) Education
25. Patient : Doctor :: Student : ?
 (1) School (2) Book (3) Teacher (4) Class
26. Garden : Gardener :: Temple : ?
 (1) Priest (2) God (3) Devotee (4) Prophet
27. Cricket : Bat :: Hockey : ?
 (1) Field (2) Hockey stick (3) Player (4) Bail
28. Dog : Rabies :: Mosquito : ?
 (1) Plague (2) Cholera (3) Cough (4) Malaria
29. Ship : Sea :: Camel : ?
 (1) Forest (2) Mountain (3) Desert (4) Town
30. Country : President :: State : ?
 (1) Governor (2) Minister (3) Chief Minister (4) Citizen

Direction : Questions (31 to 40) :






In each of the following questions, select a figure from amongst the four alternatives, which when placed in the blank space (?) of figure (X) would complete the pattern.

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

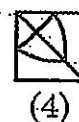
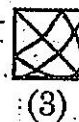
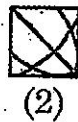
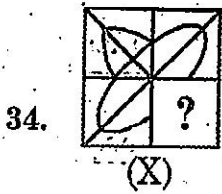
(1) 1 (2) 2 (3) 3 (4) 4

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

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

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

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

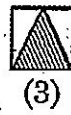
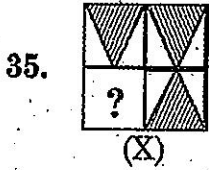


(1) 1

(2) 2

(3) 3

(4) 4

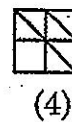
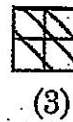
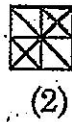
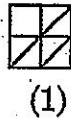
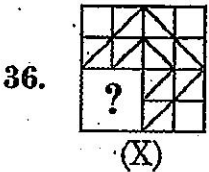


(1) 1

(2) 2

(3) 3

(4) 4

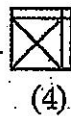
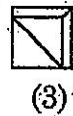
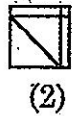
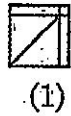
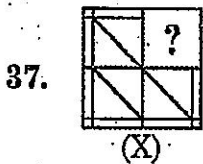


(1) 1

(2) 2

(3) 3

(4) 4

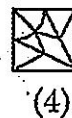
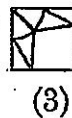
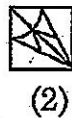
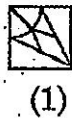
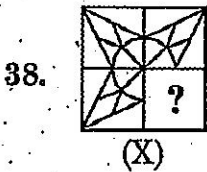


(1) 1

(2) 2

(3) 3

(4) 4

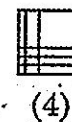
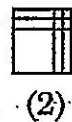
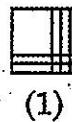
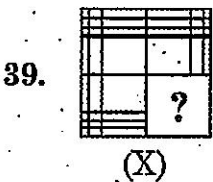


(1) 1

(2) 2

(3) 3

(4) 4

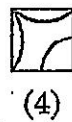
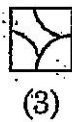
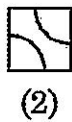
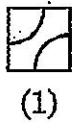
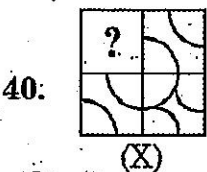


(1) 1

(2) 2

(3) 3

(4) 4



(1) 1

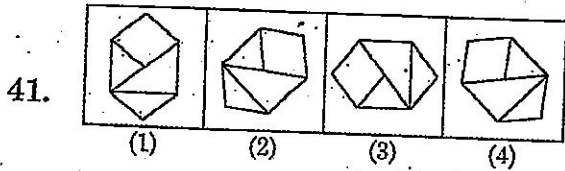
(2) 2

(3) 3

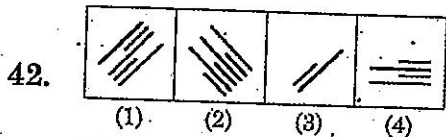
(4) 4

Direction : Questions (41 to 50) :

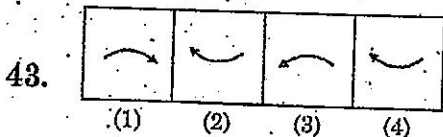
In each question, out of the four figures marked (1), (2), (3) and (4), three are similar in a certain manner. However, one figure is not like the other three. Choose the figure which is different from the rest.



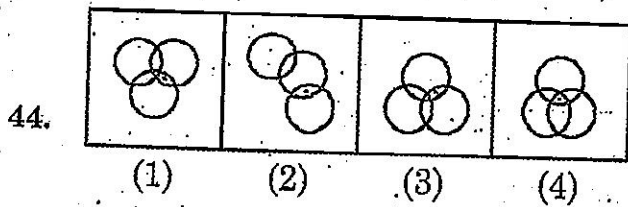
- (1) 1 (2) 2 (3) 3 (4) 4



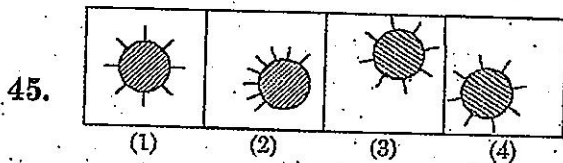
- (1) 1 (2) 2 (3) 3 (4) 4



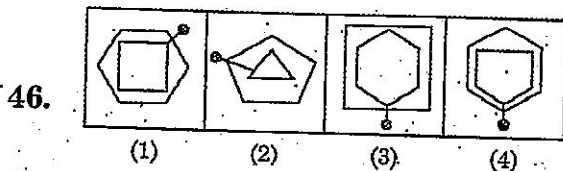
- (1) 1 (2) 2 (3) 3 (4) 4



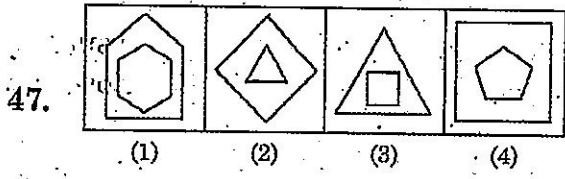
- (1) 1 (2) 2 (3) 3 (4) 4



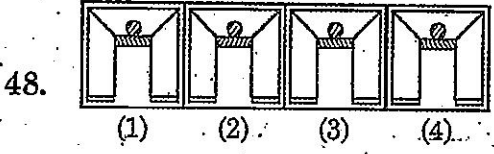
- (1) 1 (2) 2 (3) 3 (4) 4



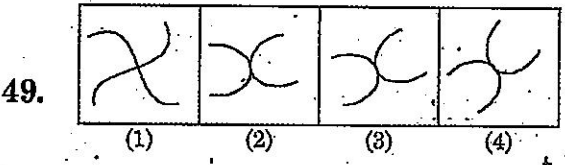
- (1) 1 (2) 2 (3) 3 (4) 4



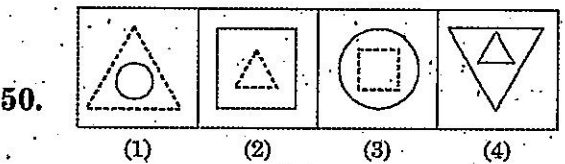
- (1) 1 (2) 2 (3) 3 (4) 4



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



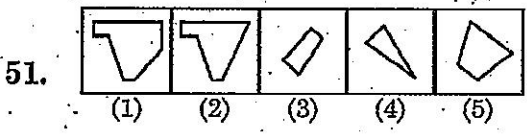
- (1) 1 (2) 2 (3) 3 (4) 4



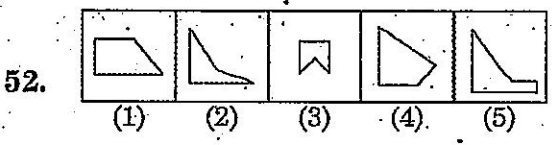
- (1) 1 (2) 2 (3) 3 (4) 4

Direction : Questions (51 to 60) :

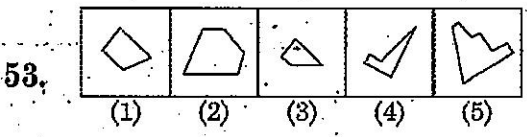
Select the alternative which represents three out of the five alternative figures which when fitted into each other would form a complete square.



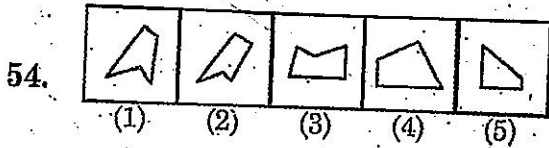
- (1) 1, 4, 5 (2) 2, 3, 4 (3) 1, 3, 4 (4) 2, 3, 5



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



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

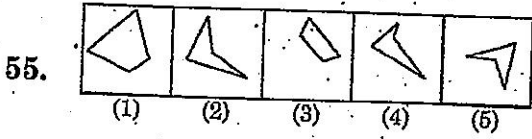


(1) 1, 2, 3

(2) 1, 3, 4

(3) 1, 3, 5

(4) 1, 4, 5

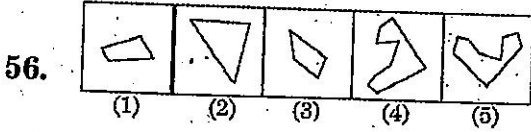


(1) 1, 4, 5

(2) 2, 4, 5

(3) 1, 2, 4

(4) 2, 3, 4

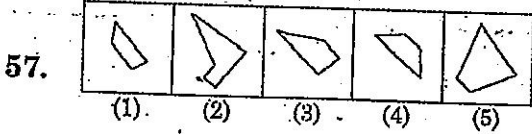


(1) 1, 2, 3

(2) 3, 4, 5

(3) 2, 4, 5

(4) 2, 3, 4

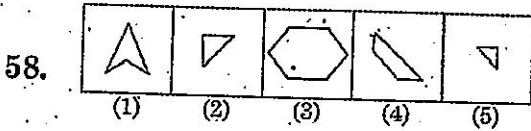


(1) 1, 2, 4

(2) 2, 3, 5

(3) 1, 3, 4

(4) 2, 4, 5

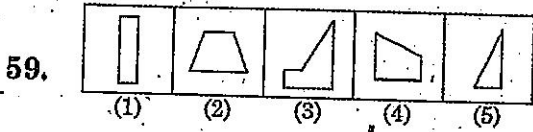


(1) 1, 3, 4

(2) 3, 4, 5

(3) 2, 3, 4

(4) 2, 3, 5

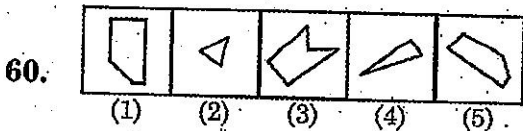


(1) 1, 3, 4

(2) 1, 2, 3

(3) 1, 4, 5

(4) 2, 3, 4



(1) 1, 2, 3

(2) 1, 3, 4

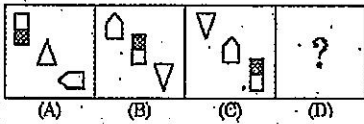
(3) 1, 2, 5

(4) 3, 4, 5

Direction : Questions (61 to 70) :

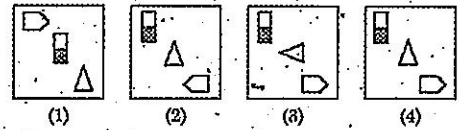
In each of the following questions, the second figure in the first unit of the problem figure bears a certain relationship to the first figure. Similarly one of the answer figure bears the same relationship to the first figure of the second unit of problem figures you have to therefore locate the figure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

61. Problem Figure



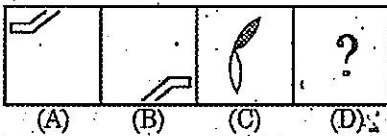
- (1) 1 (2) 2

Answer Figure



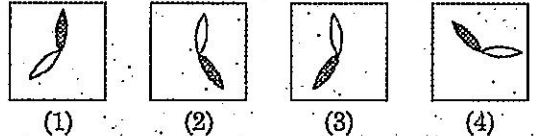
- (3) 3 (4) 4

62. Problem Figure



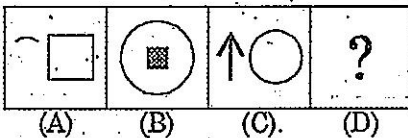
- (1) 1 (2) 2

Answer Figure



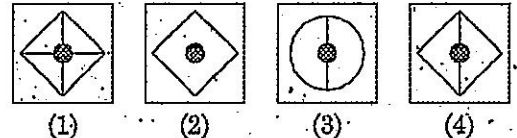
- (3) 3 (4) 4

63. Problem Figure



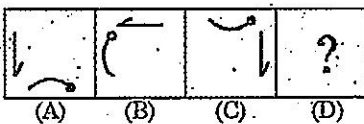
- (1) 1 (2) 2

Answer Figure



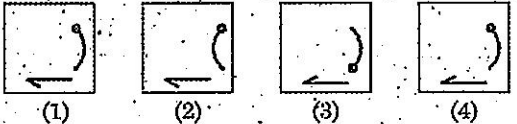
- (3) 3 (4) 4

64. Problem Figure



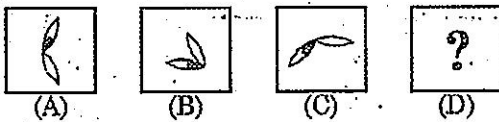
- (1) 1 (2) 2

Answer Figure



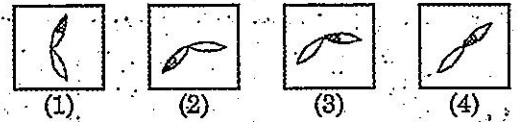
- (3) 3 (4) 4

65. Problem Figure



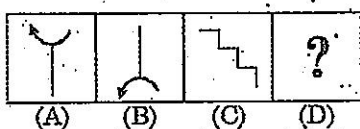
- (1) 1 (2) 2

Answer Figure



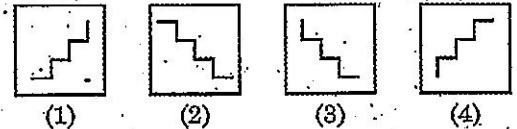
- (3) 3 (4) 4

66. Problem Figure



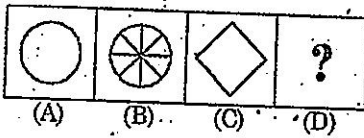
- (1) 1 (2) 2

Answer Figure



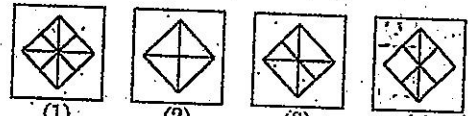
- (3) 3 (4) 4

67. Problem Figure



- (1) 1 (2) 2

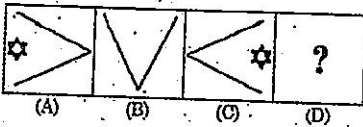
Answer Figure



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

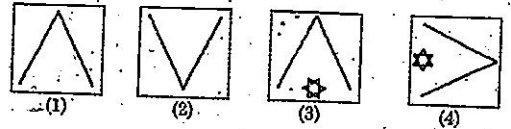
Q. No. **B**

68. Problem Figure



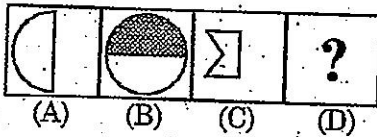
- (1) 1 (2) 2

Answer Figure



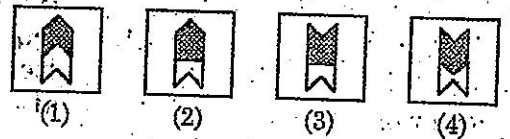
- (1) (2) (3) (4)
(3) 3 (4) 4

69. Problem Figure



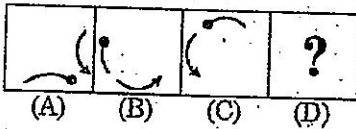
- (1) 1 (2) 2

Answer Figure



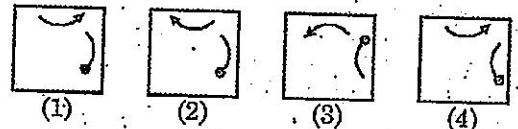
- (1) (2) (3) (4)
(3) 3 (4) 4

70. Problem Figure



- (1) 1 (2) 2

Answer Figure



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

Direction : Questions (71 to 80) :

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 instructions.

71. 6, 11, 21, 36, 56, ?

- (1) 42 (2) 51 (3) 91 (4) 81

72. 22, 24, 28, ?, 52, 84

- (1) 36 (2) 38 (3) 42 (4) 46

73. 0, 2, 8, 14, ?, 34

- (1) 20 (2) 23 (3) 24 (4) 25

74. 1, 5, 13, 25, 41, ?

- (1) 51 (2) 57 (3) 61 (4) 63

75. 4, 6, 12, 14, 28, 30, ?

- (1) 12 (2) 60 (3) 62 (4) 64

76. 1, 3, 3, 6, 7, 9, ?, 12, 21

(1) 10

(2) 11

(3) 12

(4) 13

77. 2, 5, 9, 19, 37, ?

(1) 73

(2) 75

(3) 76

(4) 78

78. 0, 6, 24, 60, 120, 210, ?

(1) 240

(2) 290

(3) 336

(4) 504

79. 11, 13, 17, 19, 23, 25, ?

(1) 26

(2) 27

(3) 29

(4) 37

80. 4, 7, 12, 19, 28, ?

(1) 30

(2) 36

(3) 39

(4) 49

Direction : Questions (81 to 90) :

In these questions, there are equations that have become wrong due to incorrect order of signs. From the four alternatives (1), (2), (3), (4) given below, find the correct order of signs, so that the equations become correct.

81. $300 - 30 \times 15 = 150$

(1) $\times, \div, =$

(2) $\div, \times, =$

(3) $=, \div, \times$

(4) $\times, =, \div$

82. $25 + 15 = 5 + 75$

(1) $=, \div, \times$

(2) $\div, =, \times$

(3) $=, \times, \div$

(4) $\times, \div, =$

83. $56 + 8 - 16 = 3$

(1) $\times, +, =$

(2) $+, =, \times$

(3) $=, +, \times$

(4) $=, \times, +$

84. $210 = 15 + 7 \times 98$

(1) $\div, \times, =$

(2) $\times, \div, =$

(3) $=, \times, \div$

(4) $\div, =, \times$

85. $65 + 7 = 63 \times 5$

(1) $=, +, -$

(2) $-, +, \times$

(3) $+, -, \times$

(4) $+, \times, =$

86. $40 + 8 \times 3 = 2$

(1) $=, +, \div$

(2) $\div, =, +$

(3) $\times, =, +$

(4) $+, \times, =$

87. $105 = 35 - 5 \div 98$

(1) $-, =, \div$

(2) $=, -, \div$

(3) $\div, =, -$

(4) $-, \div, =$

88. $25 - 10 = 2 + 33$

(1) $-, =, +$

(2) $+, -, =$

(3) $=, -, +$

(4) $=, +, -$

89. $56 - 4 + 12 = 8$

(1) $+, \times, =$

(2) $\times, =, +$

(3) $=, \times, +$

(4) $+, \times, -$

90. $676 - 26 = 4 + 30$

(1) $\div, +, =$

(2) $+, \div, =$

(3) $=, \div, +$

(4) $+, =, \div$

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 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 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 **Blue or Black Ballpoint Pen**.

91. Car A : Travelled a distance of 150 m in 10 sec.
 Car B : Travelled a distance of 180 m in 30 sec.
 Then the ratio of speeds of car A to B is

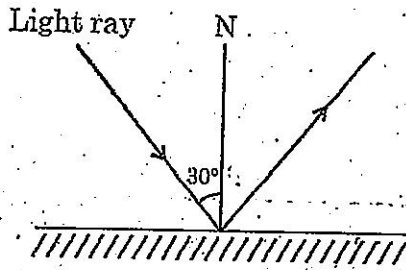
- (1) 5 : 2 (2) 5 : 3 (3) 2 : 5 (4) 3 : 5

92. A : Mirrors used by dentist B : Torches
 C : Head lights of motor vehicles D : Rear view mirrors

In the above situations where we use concave mirror?

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

93.



The angle between incident ray and the reflected ray is

- (1) 30° (2) 90° (3) 60° (4) 0°

94. Match the following :

Free body diagram	Magnitude of resultant force
i) $\begin{matrix} \xrightarrow{8N} \\ \xrightarrow{8N} \end{matrix} \square \xrightarrow{\quad}$	P) 6 N
ii) $\begin{matrix} \xrightarrow{8N} \\ \xleftarrow{8N} \end{matrix} \square$	Q) 10 N
iii) $\begin{matrix} \xrightarrow{7N} \\ \xrightarrow{8N} \end{matrix} \square \xleftarrow{5N}$	R) 0 N
iv) $\begin{matrix} \xrightarrow{15N} \\ \xleftarrow{9N} \end{matrix} \square$	S) 16 N

(1) i - S, ii - R, iii - Q, iv - P

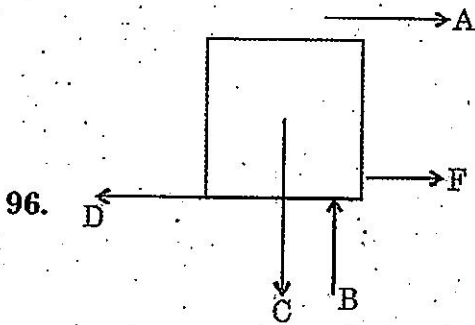
(2) i - S, ii - Q, iii - P, iv - R

(3) i - S, ii - Q, iii - R, iv - P

(4) i - R, ii - S, iii - Q, iv - P

95. Which of the following is NOT a field force?

- | | |
|--------------------|-------------------------|
| (1) Magnetic force | (2) Electrostatic force |
| (3) Normal force | (4) Gravitational force |



In the above diagram friction is represented by

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

97. P: Concave mirror forms virtual and real images.

Q: Convex mirror forms only real images.

R: Image in a plane mirror is laterally inverted.

Choose the CORRECT statements.

- | | | | |
|-------------|----------|----------|----------|
| (1) P, Q, R | (2) P, R | (3) P, Q | (4) Q, R |
|-------------|----------|----------|----------|

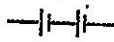



98. Assertion (A) : We feel sweaty in some coastal regions in hot summer days.

Reason (R) : If the humidity is high we feel sweaty.

Choose the CORRECT statement.

- (1) Both A, R are true and R is the correct explanation of A.
- (2) Both A, R are true but R is not the correct explanation of A.
- (3) A is true and R is false.
- (4) Both A and R are false.

99. Match the following :

Column A	Column B
i. 	P. Switch off
ii. 	Q. Battery
iii. 	R. Bulb-off
iv. 	S. Fuse

(1) i-P, ii-Q, iii-S, iv-R

(2) i-P, ii-Q, iii-R, iv-S

(3) i-Q, ii-S, iii-P, iv-R

(4) i-P, ii-R, iii-S, iv-Q

100. Identify the CORRECT statements of the following :

P : Heat is a form of energy.

Q : Bromine is used in thermometer as a liquid.

R : Thermometer is used to measure the temperature of objects.

S : The normal temperature of human body is 35°C .

(1) P, S

(2) P, Q

(3) Q, R

(4) P, R

101. Assertion (A) : Alcohol is used as one of the liquid to measure temperature in thermometers.

Reason (R) : Its expansion per degree celsius rise in temperature is very low.

Then choose the CORRECT among the following :

(1) Both A and R are true and R is the correct explanation of A.

(2) Both A and R are true but R is not the correct explanation of A.

(3) A is true and R is false.

(4) A is false and R is true.

102. Which one of the following is NOT an oscillatory motion?

(1) Spinning of top

(2) Motion of vibrating string in guitar

(3) To and fro motion of a swing

(4) Motion of ringing bell.

CHEMISTRY

103. Match the following :

Resin	Code number
i) PVC	P) 2
ii) LDPE	Q) 6
iii) HDPE	R) 3
iv) PS	S) 4

(1) i - P, ii - Q, iii - S, iv - R

(2) i - R, ii - S, iii - P, iv - Q

(3) i - Q, ii - P, iii - R, iv - S

(4) i - R, ii - P, iii - S, iv - Q

104. Which of the following elements are highly malleable?

A : Carbon

B : Silver

C : Sulphur

D : Gold

(1) A, B

(2) B, D

(3) B, C

(4) C, D

105. P : The synthetic fibre used in sweaters is acrylic.

Q : Acrylic is generally called "Fake fur"

(1) Both P and Q are correct

(2) Both P and Q are wrong

(3) P is correct and Q is wrong

(4) P is wrong and Q is correct

106. Which metal is used in Galvanization process?

(1) Zinc

(2) Copper

(3) Silver

(4) Gold

107. Find the odd one :

(1) Iron

(2) Gold

(3) Carbon

(4) Silver

108. The substance used to prevent browning while cutting vegetables into pieces is.....

(1) Sulphuric acid

(2) Hydrochloric acid

(3) Nitric acid

(4) Ascorbic acid

109. Match the following :

Column A	Column B
i) Preparation of Pickles	P) Oxalic acid
ii) Cool drinks	Q) Sulphuric acid
iii) Batteries	R) Carbonic acid
iv) Removal of ink stains	S) Acetic acid

(1) i - S, ii - Q, iii - P, iv - R

(2) i - S, ii - R, iii - Q, iv - P

(3) i - S, ii - P, iii - R, iv - Q

(4) i - P, ii - R, iii - S, iv - Q

110. P : Mercury is metal.

Q : Mercury is sonorous.

(1) Both P and Q are correct

(2) Both P and Q are wrong

(3) P is correct and Q is wrong

(4) P is wrong and Q is correct

111. Convert the temperature 273°C in Kelvin scale.

(1) 0 K

(2) 546 K

(3) 300 K

(4) 273 K

112. The acid injected in our body during ant bite is

(1) Acetic acid

(2) Formic acid

(3) Tartaric acid

(4) Steric acid

113. A : Sugar

B : Washing soda

C : Baking soda

D : Starch

Which of the above are NOT salts?

(1) A, C

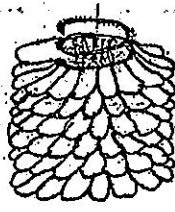
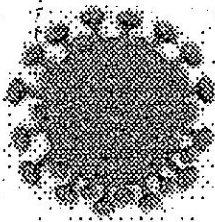
(2) B, C

(3) C, D

(4) A, D

BIOLOGY

114.



Identify the CORRECT statements pertaining to the above shown organisms :

- (A) They can be seen through ordinary microscopes.
 - (B) They behave like non-living things when they are outside a living cell.
 - (C) They cause diseases like AIDS.
- (1) (A) and (B)
 (2) (A) and (C)
 (3) (B) and (C)
 (4) (A), (B) and (C)

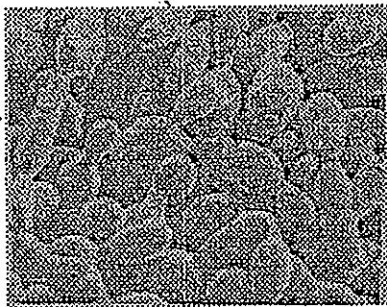
115. Which of the following statements is CORRECT?

- (1) Seeds of Orchids are heavier.
- (2) Seeds of Dandelion disperse through water.
- (3) Seeds of Dolichos (Beans) disperse through the dehiscence of fruits.
- (4) There is no relation between the weight of the seeds and their dispersal.

116. Soil with large particles is(A)..... and with small particles is(B).....

- (1) (A) Clay, (B) Sand
- (2) (A) Clay, (B) Loam
- (3) (A) Loam, (B) Sand
- (4) (A) Sand, (B) Clay

117.



The type of reproduction that occurs in this organism is

- (1) Sexual reproduction
- (2) Asexual reproduction
- (3) Vegetative propagation by leaves
- (4) Vegetative propagation by stem

118. Statement (A) : 9 Cartilagenous bones are present in the voice box of humans.

Statement (B) : A protruding, swollen out growth seen at the throat region is thyroid cartilage.

- (1) Only (A) is correct. (2) Both (A) and (B) are wrong.
 (3) Both (A) and (B) are correct. (4) Only (B) is correct.

119. Which of the following diseases can be prevented by Vaccines?

- A) Swineflu B) Diphtheria C) Hepatitis D) Malaria
 (1) A) and B)
 (2) B) and C)
 (3) A), B) and C)
 (4) All of these

120. Match the following :

i) Motor vehicles	P) Sulphur dioxide
ii) Aerosols	Q) Carbon monoxide
iii) Power Generating Centers	R) Chlorine
iv) Industries	S) Chlorofluorocarbons

- (1) i - Q, ii - R, iii - S, iv - P (2) i - Q, ii - S, iii - P, iv - R
 (3) i - R, ii - S, iii - Q, iv - P (4) i - P, ii - Q, iii - R, iv - S

121. Observe the given diagram and identify the part arising from each ovary.



- (1) Uterus (2) Fallopian tubes
 (3) Egg (4) Seminal tubules

122. Assertion (A) : Drones die after mating.

Reason (R) : Abdomen bursts at the time of reproduction.

- (1) (R) is not the correct explanation for (A).
 - (2) (R) is the correct explanation for (A).
 - (3) (A) is not correct.
 - (4) (R) is not correct.
-

123. Crops that can be cultivated during rainy season, between the months of June and(1)..... are(2)..... crops, and between(3)..... to March, during winter season are(4).....

- (1) (1) November, (2) Kharif, (3) November, (4) Rabi
 - (2) (1) October, (2) Rabi, (3) October, (4) Kharif
 - (3) (1) October, (2) Kharif, (3) October, (4) Rabi
 - (4) (1) November, (2) Rabi, (3) November, (4) Kharif
-

124. Identify the CORRECT order of the stages of making of woolen clothes.

- (1) Shearing, Sorting, Carding, Scouring
 - (2) Sorting, Shearing, Scouring, Carding
 - (3) Shearing, Scouring, Sorting, Carding
 - (4) Sorting, Scouring, Carding, Shearing
-

125. It is observed that the layers in the soil are arranged as

O → A → E → B → C → R horizons. Identify the components of horizon 'C'.

- (1) Humus
 - (2) Mineral Salts, Humus
 - (3) Less amount of Humus
 - (4) Sand and Clay
-

MATHEMATICS

126. Assertion (A) : If the 4 angles of a quadrilateral are

$x^{\circ}, (x+10)^{\circ}, (x+20)^{\circ}, (x+30)^{\circ}$, then the value of $x = 75^{\circ}$.

Reason (R) : Sum of the four angles of a quadrilateral is 180° .

Now choose the CORRECT answer.

- (1) Both (A) and (R) are true and (R) supports (A).
- (2) Both (A) and (R) are true but (R) doesn't support (A).
- (3) (A) is true but (R) is false.
- (4) (A) is false but (R) is true.

127. $\triangle ABC$ and $\triangle BPE$ are two equilateral triangles such that P, E are the mid points of $\overline{AB}, \overline{BC}$ respectively. Then the ratio of the areas of $\triangle BPE$ and $\triangle ABC$ is

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

128. In a rectangle $RSTU$, the diagonals intersect at 'O' and $OR = 5x+1$ and $OU = 2x+4$, then the value of $x =$

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

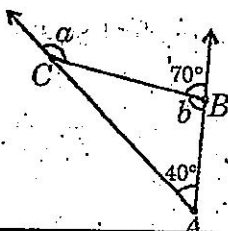
129. Match the following :

i) Each angle of a rectangle is	P) equal
ii) Opposite angles of a parallelogram is.	Q) 360°
iii) Sum of angles in a quadrilateral	R) 100
iv) The side of a square is 25 cm; then its perimeter is cm	S) 90°

- (1) i - P, ii - R, iii - S, iv - Q
- (2) i - Q, ii - S, iii - R, iv - P
- (3) i - R, ii - Q, iii - P, iv - S
- (4) i - S, ii - P, iii - Q, iv - R

130. Find the measures of ' α ' and ' b ' respectively from the given figure.

- (1) $30^{\circ}, 110^{\circ}$
- (2) $110^{\circ}, 50^{\circ}$
- (3) $40^{\circ}, 150^{\circ}$
- (4) $150^{\circ}, 110^{\circ}$



131. Which one of the following will divide $(3^{125} + 3^{126} + 3^{127} + 3^{128})$ completely?

- (1) 11 (2) 16 (3) 25 (4) 30

132. Which is greater among the following?

- (1) $2^{2^{2^2}}$ (2) 2222 (3) 222^2 (4) $\left[(2^2)^2 \right]^2$

133. If a, b, c are three natural numbers, then the number 'abcabc' is always divisible by

- (1) 7 (2) 11 (3) 13 (4) All of these

134. If $x = (-501) + 502 + (-503) + (504) + \dots (30 \text{ terms})$ and $y = (2010) + (-2011) + (2012) + (-2013) + \dots (20 \text{ terms})$, then $x + y = \dots$

- (1) 50 (2) 15 (3) 10 (4) 5

135. If $x = (-1)^{2020}$ and $y = (+1)^{2021}$ and $x + y = z$, then

$$(x + y + z) \cdot (x + y) \cdot (z) - \left(\frac{x + y}{z} \right) = ?$$

- (1) 15 (2) 0 (3) 16 (4) 11

136. If the units digit in $(549) \times 56 \times (28*) \times (684)$ be '8', then what digit will be there in place of '*'?

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

137. If $x = 0.\overline{7}$ and $y = 0.\overline{23}$, then the rational number between $(x + y)$ and $(x - y)$ is

- (1) $\frac{4}{11}$ (2) $\frac{5}{11}$ (3) $\frac{53}{55}$ (4) $\frac{12}{11}$

138. For what values of n , $n^2 + 96$ is a perfect square?

- (1) 23, 10, 5, 2 (2) 25, 12, 4, 3 (3) 28, 14, 6, 7 (4) 25, 11, 8, 6

139. If $\frac{2 + \frac{1}{3 + \frac{4}{5}}}{2 + \frac{1}{3 + \frac{1}{1 + \frac{1}{4}}}} = x$, then the value of x is

- (1) $\frac{1}{7}$ (2) $\frac{3}{7}$ (3) $\frac{7}{7}$ (4) $\frac{8}{7}$
-

140. If $15 : 22 \frac{1}{2} = x : 9$ and $x = m \times n$, where m, n are consecutive whole numbers, then the value of $(n+1)^{m+1}$ is

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

141. If $1.125 \times 10^k = 0.001125$, then the value of k is

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

142. The mean of 25 observations is 18. Among these the mean of first 12 observations is 14 and the last 12 observations is 17, then what is the 13th observation?

- (1) 67 (2) 144 (3) 78 (4) 31
-

143. 30 men can complete a work in 18 days by working 7 hours a day. How many men are required to complete the same work in 30 days by working 6 hours per day?

- (1) 15 (2) 21 (3) 22 (4) 25
-

144. $\frac{0.02247 \times 0.384 + 0.02247 \times 0.616}{0.07 \times 1.583 - 0.07 \times 0.583} = ?$

- (1) 0.321 (2) 321 (3) 3.21 (4) 0.0321
-

145. Which of the following data has same value for mean, median and mode?

- (1) 4, 4, 4, 4, 8 (2) 2, 6, 6, 6, 10 (3) 2, 2, 4, 10, 12 (4) 2, 2, 2, 4, 10
-

HISTORY

146. Who among the following granted Robert Clive the right to rule Bengal?

- (1) Shah Alam (2) Anwaruddin Khan
(3) Bahadur Shah Zafar (4) Muzaffar Jung

147. Who among the following subdued the Palegars in Rayalaseema?

- (1) Cornwallis (2) Thomas Munro (3) Robert Clive (4) Dalhousie

148. The famous slogan 'Swaraj is my birth right' was given by

- (1) Subhash Chandra Bose (2) Dadabhai Naoroji
(3) Bal Gangadhar Tilak (4) Gandhiji

149. In which of the following sessions, Congress declared that the attainment of 'Purna Swaraj' was its goal?

- (1) Lahore Session (2) Nagpur Session
(3) Madras Session (4) Pune Session

150. Which of the following statements is/are CORRECT?

- (i) Mahmud Ghazni entrusted Al-Biruni to write an account of the Indian Subcontinent.
(ii) Al-Biruni wrote the book named 'Kitab-al-Hind' in Urdu.
(1) (i) only (2) (ii) only
(3) Both (i) and (ii) (4) Neither (i), nor (ii)

151. In Chola's administration, settlements of peasants are known as

- (1) Nadus (2) Valnadus (3) Ur (4) Mandalams

152. In the beginning, Kakatiyas were holding the posts of

- (1) Rattadi (2) Nayakas (3) Amaranayakas (4) Jagirdars

153. Match the following :

i) Abdul Razzak	P) Krishna Deva Raya
ii) Paes	Q) Achyuta Raya
iii) Nuniz	R) Devaraya-II

- (1) i - P, ii - Q, iii - R (2) i - R, ii - Q, iii - P
(3) i - Q, ii - P, iii - R (4) i - R, ii - P, iii - Q

154. Jahangir's mother was the daughter of the Rajput ruler of

- (1) Jodhpur (2) Chittor (3) Amber (4) Sisodia

155. Ibadat Khana built by Akbar was a

- (1) meeting house where discussions with learned individuals of different faiths were held.
(2) dining hall where the feasts to foreign guests were arranged.
(3) library where the large collection of religious books were kept.
(4) school where the children were taught about world peace.

GEOGRAPHY

156. This belt gets the maximum heat energy from the sun –
- (1) The belt extending from the Tropic of Cancer to the Tropic of Capricorn.
 - (2) The belt extending from the Tropic of Cancer to the Equator only.
 - (3) The belt extending from the Tropic of Capricorn to the Equator only.
 - (4) The belt extending from the Arctic circle to the Antarctic circle.
-
157. Andhra Pradesh has no such forests –
- | | |
|-----------------------|-----------------------|
| (1) Evergreen forests | (2) Deciduous forests |
| (3) Thorny forests | (4) Mangrove forests |
-
158. Assertion (A) : Temperature decreases as we go higher from the Earth's surface.
Reason (R) : The sunrays first heat the atmosphere. Then the atmosphere heats the earth.
- (1) Both (A) and (R) are true and (R) is the correct explanation of (A).
 - (2) Both (A) and (R) are true but (R) is not the correct explanation of (A).
 - (3) (A) is true but (R) is false.
 - (4) (A) is false but (R) is true.
-
159. The angle made by Earth's axis of rotation with the plane of its orbit is :.....
- | | | | |
|------------------|------------------|----------------|---------------|
| (1) 23.5 degrees | (2) 66.5 degrees | (3) 90 degrees | (4) 0 degrees |
|------------------|------------------|----------------|---------------|
-
160. Eastern ghats DO NOT extend in the following State –
- | | | | |
|--------------------|------------|---------------|----------------|
| (1) Andhra Pradesh | (2) Odisha | (3) Karnataka | (4) Tamil Nadu |
|--------------------|------------|---------------|----------------|
-
161. River Oder empties itself in
- | | | | |
|------------------|---------------|----------------|-----------------|
| (1) Adriatic sea | (2) Black sea | (3) Baltic sea | (4) Caspian sea |
|------------------|---------------|----------------|-----------------|
-
162. The countries across whose borders the Pyrenees stretch?
- | | |
|---------------------|---------------------|
| (1) France, Spain | (2) Portugal, Spain |
| (3) Britain, France | (4) France, Germany |
-
163. Which of the following statements is/are CORRECT?
- i) The Central Africa receives very low rainfall.
 - ii) The Western Africa receives heavy rainfall.
- | | |
|-----------------------|---------------------------|
| (1) (i) Only | (2) (ii) Only |
| (3) Both (i) and (ii) | (4) Neither (i), nor (ii) |
-
164. Whose books were used by the Arab scholars and sailors to prepare maps at an early stage?
- | | | | |
|-----------------|---------------|--------------|-------------|
| (1) Anaximander | (2) Al Idrisi | (3) Mercator | (4) Ptolemy |
|-----------------|---------------|--------------|-------------|
-
165. Who among the following are believed by Eskimos to help establish and keep contacts with the spirit world?
- | | | | |
|-------------|-------------|-------------|-----------|
| (1) Vikings | (2) Mukluks | (3) Shamans | (4) Sedna |
|-------------|-------------|-------------|-----------|

POLITICAL SCIENCE

166. Total number of Constituencies reserved for SCs in Andhra Pradesh State Legislative Assembly is

- (1) 29 (2) 7 (3) 17 (4) 10
-

167. "I shall strive for a Constitution which will release India from all thralldom and patronage I shall be satisfied with nothing else." The national leader who wrote these words was —

- (1) Jawaharlal Nehru (2) Gandhiji
(3) Ambedkar (4) Rajendra Prasad
-

168. Parliament consists of :

- (1) Lok Sabha only
(2) Rajya Sabha only
(3) Lok Sabha and Rajya Sabha
(4) Lok Sabha, Rajya Sabha and The President
-

169. Who among the following demanded the British Colonial Government in 1911 to make a law for free and compulsory education for all the children of the country?

- (1) Bal Gangadhar Tilak (2) Ambedkar
(3) Gopal Krishna Gokhale (4) Dadabhai Naoroji
-

170. The Chief Election Commissioner of India holds the office for

- (1) Six years
(2) Five years
(3) Six years or till the age of 65 years, whichever is earlier.
(4) Five years or till the age of 60 years, whichever is earlier.
-

171. Assertion (A) : January 26th is celebrated every year as the Republic day of India.

Reason (R) : On January 26th, 1950 the Constitution was adopted finally by the constituent assembly.

- (1) Both (A) and (R) are true and (R) is the correct explanation of (A).
 - (2) Both (A) and (R) are true but (R) is not the correct explanation of (A).
 - (3) (A) is true but (R) is false.
 - (4) (A) is false but (R) is true.
-

172. The Governor of the State is appointed by :

- (1) The Chief Minister
 - (2) The Prime Minister
 - (3) The President
 - (4) Members of the State Legislative Assembly
-

173. The person who drafted a Constitution for India in 1928 –

- | | |
|--------------------------|-------------------|
| (1) Dadabhai Naoroji | (2) Motilal Nehru |
| (3) Subhash Chandra Bose | (4) Ambedkar |
-

174. The term, 'Republic', mentioned in the Preamble means that :

- (1) The Government will not favour any religion.
 - (2) People have the supreme right to make decisions.
 - (3) Head of the State is an elected person.
 - (4) People should live like brothers and sisters.
-

175. Difference between Directive Principles and Fundamental Rights –

- (1) Citizens can take help from the courts in case their Fundamental Rights are violated but there is no such possibility regarding Directive Principles.
 - (2) Citizens can take help from the courts in case the Directive Principles are violated but there is no such possibility regarding Fundamental Rights.
 - (3) The Fundamental Rights are mentioned in the Constitution but not the Directive Principles.
 - (4) The Directive Principles are mentioned in the Constitution but not the Fundamental Rights.
-

176. Antyodaya card holders are entitled to get.....

- (1) 25 kgs of food grains (2) 30 kgs of food grains
(3) 35 kgs of food grains (4) 40 kgs of food grains
-

177. How many days of employment can a rural house-hold get in a year under MNREGA?

- (1) Atleast 200 days (2) Atleast 150 days
(3) Atleast 100 days (4) Atleast 50 days
-

178. Find out the FALSE statement regarding the technological changes –

- (1) They create some new jobs.
(2) They bring changes in production process.
(3) They also affect service activities.
(4) They are always welcomed by all the people.
-

179. The largest employer in India today is

- (1) Software companies (2) Agriculture sector
(3) Service sector (4) Industries
-

180. From his granary, the King should set apart one half for the people in the countryside in times of distress and use the other half, and he should replace old stock for new. These words were written by –

- (1) Kautilya (2) Kalhana (3) Abul Fazal (4) Todar Mal
-

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