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NMMS - DECEMBER, 2022

MENTAL ABILITY AND
SCHOLASTIC APTITUDE TEST

Time : Part - I : 90 Minutes

Max. Marks : 90

Time : Part - II : 90 Minutes

Max. Marks : 90

Instructions to Candidates

Read the following instructions carefully before you answer the questions. Answers are to be SHADED on a SEPARATE given OMR Answer Sheet with a **HB Pencil**. Read the **Instructions printed on the OMR Sheet carefully before answering the questions.**

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

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

PART - I

MENTAL ABILITY TEST

Time : 90 Minutes

Max. Marks : 90

Note :- SHADE the correct alternatives in the OMR Answer Sheet provided, from amongst the ones given against the corresponding questions in the Question Booklet. For shading the circles, use a **HB Pencil**.

Mental Ability Test (MAT)

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) and (4). One of them is the right answer. Indicate it as per the "Instructions".

1. 2, 5, 10, 17, 26, 37, ?
 (1) 48
 (2) 50
 (3) 49
 (4) 51
2. 23, 45, 89, 177, ?
 (1) 343
 (2) 453
 (3) 353
 (4) 253
3. 15, 15, 30, 90, 360, ?
 (1) 1600
 (2) 1400
 (3) 1672
 (4) 1800
4. 43, 34, 27, 22, 19, ?
 (1) 16
 (2) 15
 (3) 17
 (4) 18
5. 5, 7, 20, 21, 80, 63, ? , 189
 (1) 320
 (2) 315
 (3) 305
 (4) 300
6. 1, 9, 25, 49, ? , 121, 169
 (1) 64
 (2) 81
 (3) 100
 (4) 96
7. 97, 98, 100, 103, ? , 112, 118
 (1) 97
 (2) 117
 (3) 107
 (4) 109
8. 5, 7, 11, 13, 17, 19, 23, ?
 (1) 26
 (2) 27
 (3) 29
 (4) 31
9. 28, 34, 45, 51, 62, ? , 79
 (1) 68
 (2) 73
 (3) 78
 (4) 70
10. 5, 6, 10, 19, 35, ? , 96
 (1) 45
 (2) 48
 (3) 60
 (4) 62

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. $30 - 5 \div 3 = 18$

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

12. $35 \times 4 + 7 = 7$

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

13. $8 \times 4 + 2 = 6$

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

14. $17 - 12 \times 4 = 20$

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

15. $3 - 4 + 5 = 23$

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

16. $8 + 4 - 2 = 16$

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

17. $3 \div 5 = 10 \times 5$

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

18. $6 \div 3 = 20 + 2$

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

19. $20 \times 5 - 1 = 5$

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

20. $15 \times 5 = 9 + 6$

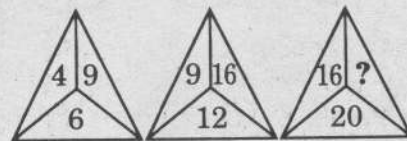
- (1) $+, =, \times$
- (2) $\times, -, =$
- (3) $\div, +, =$
- (4) $\div, =, -$

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) 25
- (2) 40
- (3) 50
- (4) 320

22.

3	6	9
5	8	20
4	7	?

- (1) 11
- (2) 14
- (3) 28
- (4) 12

23.

3	5	6	4	8	7	9	8
1	5	2	4	5	6	7	?

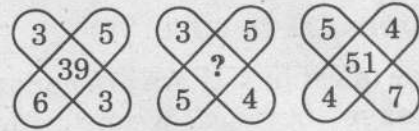
- (1) 4
- (2) 8
- (3) 6
- (4) 2

24.



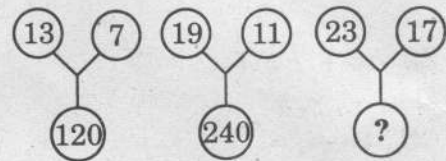
- (1) 72
- (2) 17
- (3) 153
- (4) 25

25.



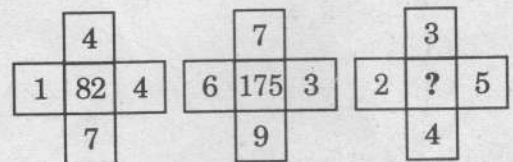
- (1) 47
- (2) 45
- (3) 37
- (4) 35

26.



- (1) 120
- (2) 240
- (3) 360
- (4) 60

27.



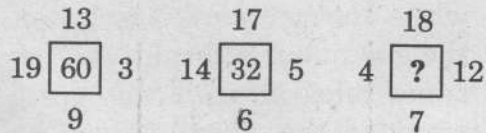
- (1) 95
- (2) 59
- (3) 45
- (4) 54

28.

6	3	243
8	4	576
7	2	?

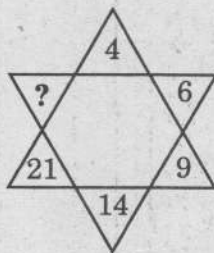
- (1) 349
- (2) 258
- (3) 351
- (4) 276

29.



- (1) 78
- (2) 68
- (3) 52
- (4) 70

30.



- (1) 25
- (2) 29
- (3) 30
- (4) 32

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 the "Instructions".

31. $1 + 102 + 1230 + 10234$

- (1) 11576
- (2) 12494
- (3) 11567
- (4) 42734

32. $6783 + 6943 + ? = 16735$

- (1) 309
- (2) 3009
- (3) 39
- (4) 30009

33. $\frac{1}{2} + \frac{2}{3} + \frac{3}{4}$

- (1) $1\frac{11}{12}$
- (2) $2\frac{13}{60}$
- (3) $2\frac{9}{11}$
- (4) $1\frac{5}{6}$

34. $0.169 \div 0.013$

- (1) 13
- (2) 0.013
- (3) 1.3
- (4) 0.13

35. 25% of 96

- (1) 25
- (2) 24
- (3) 240
- (4) 384

36. $1599 \div ? = 123$

- (1) 11
- (2) 13
- (3) 23
- (4) 33

37. $\sqrt{\frac{324}{289}} = \frac{?}{17}$

- (1) 16
- (2) 15
- (3) 18
- (4) 19

38. 13% of ? = 117

- (1) 50
- (2) 80
- (3) 900
- (4) 950

39. 0.8×0.09

- (1) 72
- (2) 7.2
- (3) 0.72
- (4) 0.072

40. $75 + \frac{75}{15}$

- (1) 90
- (2) 85
- (3) 95
- (4) 80

Directions :

Questions (41 to 50) :

In each of the following questions, there are 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 four alternatives, having the same relation with this word as the word of the given pair. Choose the correct alternatives.

41. Fruit : Banana :: Vegetable : ?

- (1) Apple
- (2) Cauliflower
- (3) Orange
- (4) Sunflower

42. Fan : Wings :: Wheel : ?

- (1) Round
- (2) Cars
- (3) Spokes
- (4) Moves

43. Milk : Liquid :: Sugar : ?

- (1) Sugarcane
- (2) Powder
- (3) Crystal
- (4) Sweet

44. Water : Ocean :: Sand : ?

- (1) Pond
- (2) River
- (3) Lake
- (4) Desert

45. Eye : See :: Leg : ?

- (1) Write
- (2) Breath
- (3) Walk
- (4) Hear

46. Plant : Seed :: ? : Bud

- (1) Leaf
- (2) Twig
- (3) Flower
- (4) Fruit

47. Tadpole : ? :: Caterpillar : Butterfly

- (1) Crow
- (2) Goose
- (3) Fish
- (4) Frog

48. Food : Hunger :: Water : ?

- (1) Drink
- (2) Bottle
- (3) Milk
- (4) Thirst

49. Tip : Pit :: Pat : ?

- (1) Tap
- (2) Top
- (3) Tape
- (4) Pot

50. CG : 37 :: BH : ?

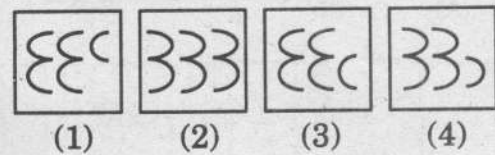
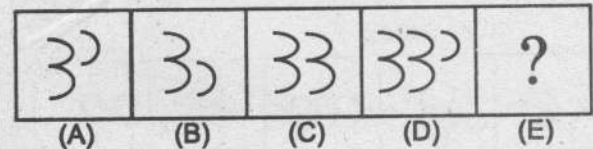
- (1) 27
- (2) 28
- (3) 37
- (4) 73

Directions :

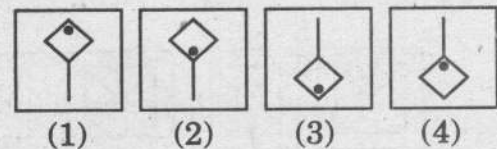
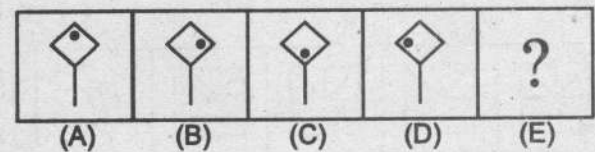
Questions (51 to 60) :

In the following questions, a sequence of figures depicting a change step by step is shown. Choose one of the four alternatives which will continue the same sequence.

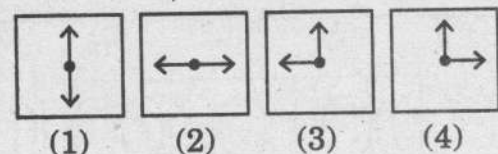
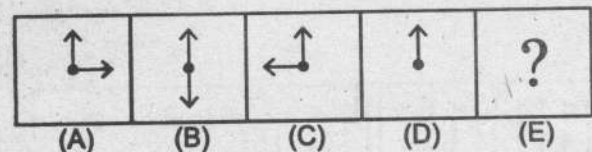
51.



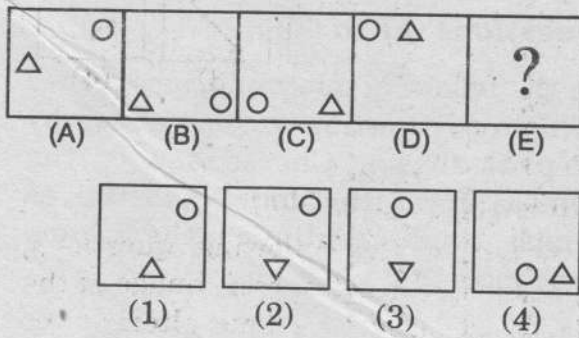
52.



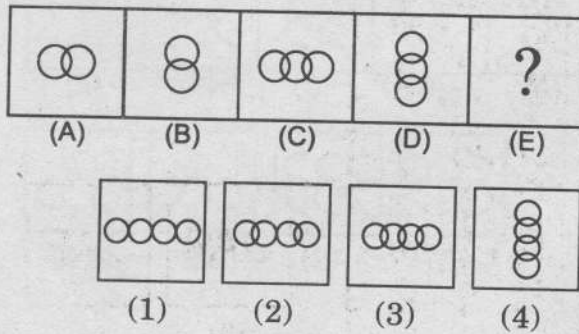
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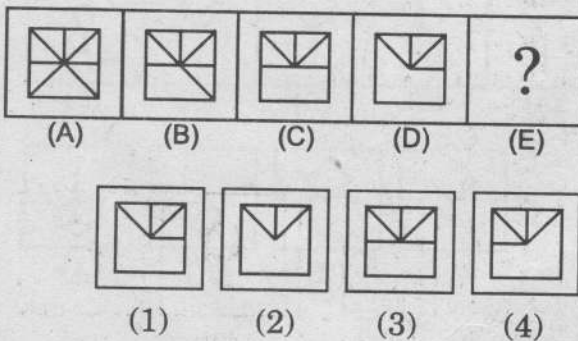
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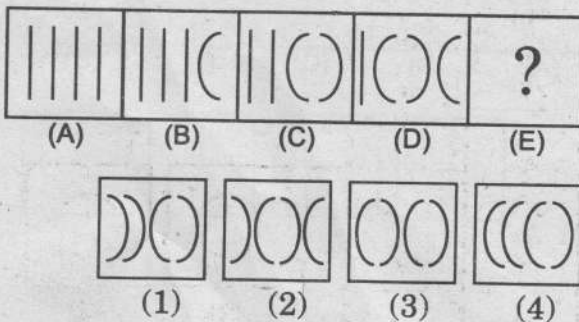
55.



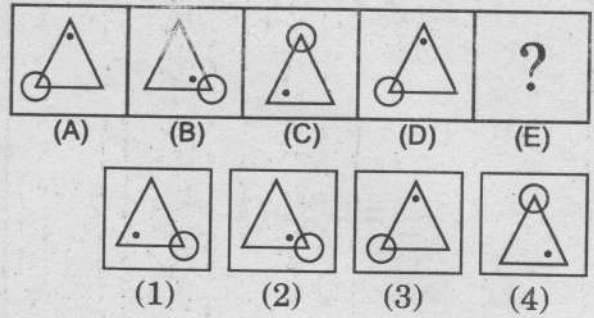
56.



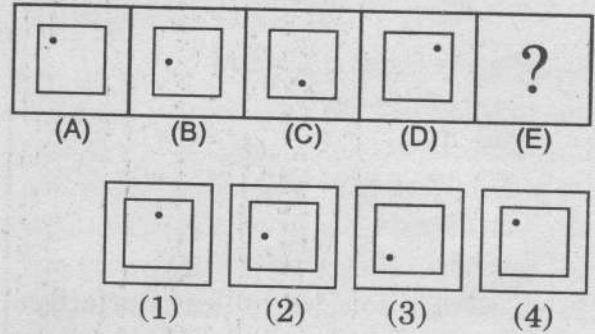
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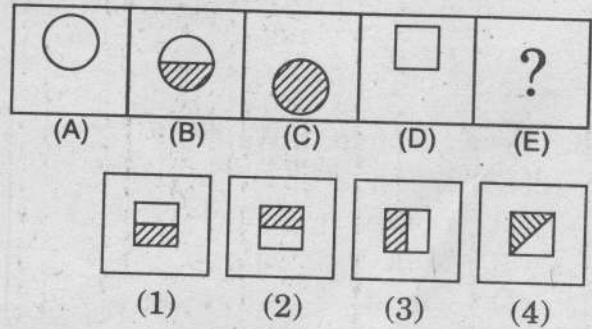
58.



59.



60.

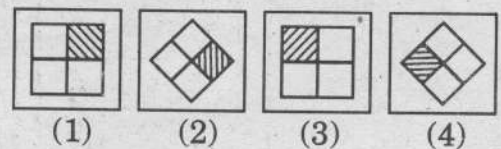


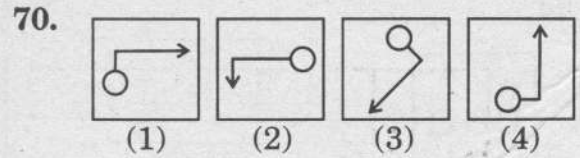
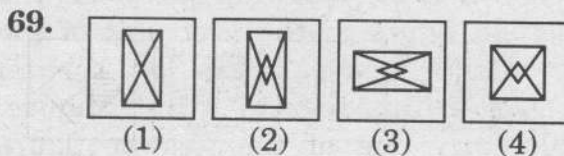
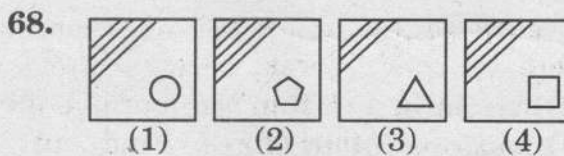
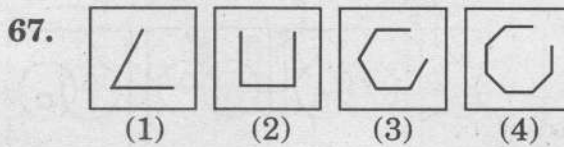
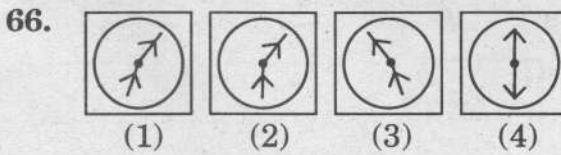
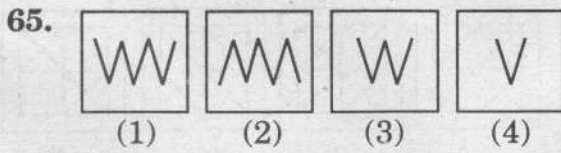
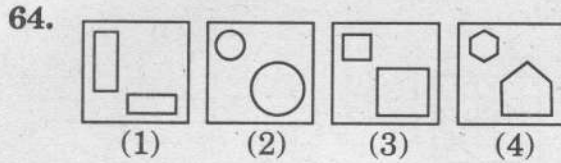
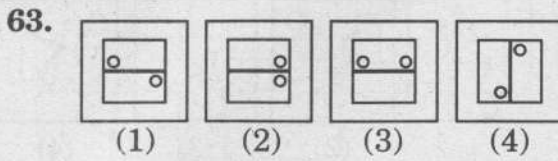
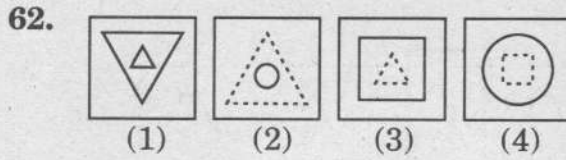
Directions :

Questions (61 to 70) :

In each of the following questions, there are four figures. Three of them are similar in a certain way but one is not like the other three. Find out, which figure is different from others.

61.



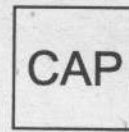


Directions :

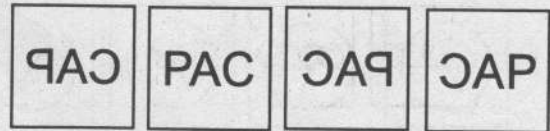
Questions (71 to 80) :

In each of the following questions, choose the correct mirror-image of the figure (X) from the four alternatives (1), (2), (3) and (4) given along with it.

71.



(X)



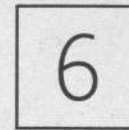
(1)

(2)

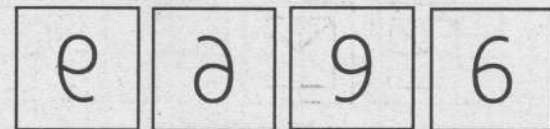
(3)

(4)

72.



(X)



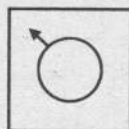
(1)

(2)

(3)

(4)

73.



(X)



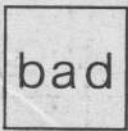
(1)

(2)

(3)

(4)

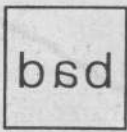
74.



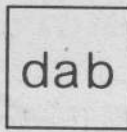
(X)



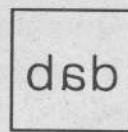
(1)



(2)



(3)



(4)

75.



(X)



(1)



(2)



(3)



(4)

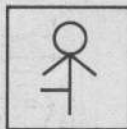
76.



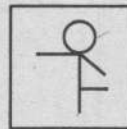
(X)



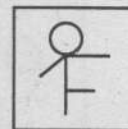
(1)



(2)



(3)

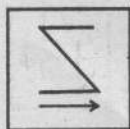


(4)

77.



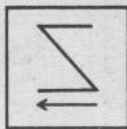
(X)



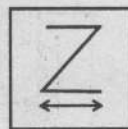
(1)



(2)

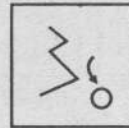


(3)

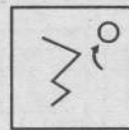


(4)

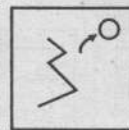
78.



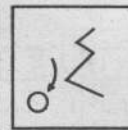
(X)



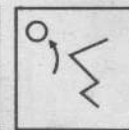
(1)



(2)

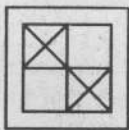


(3)

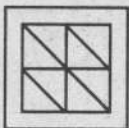


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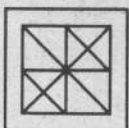
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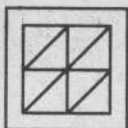
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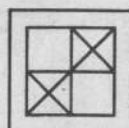
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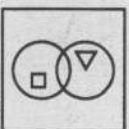


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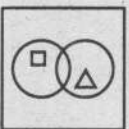


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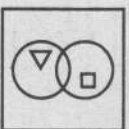
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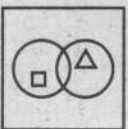
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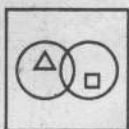
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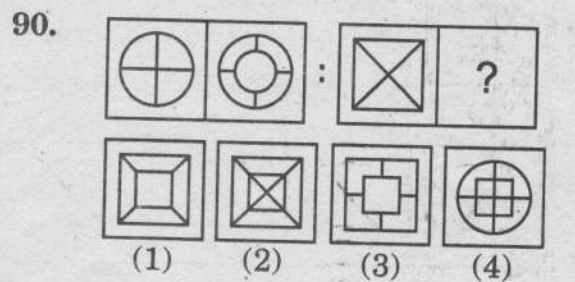
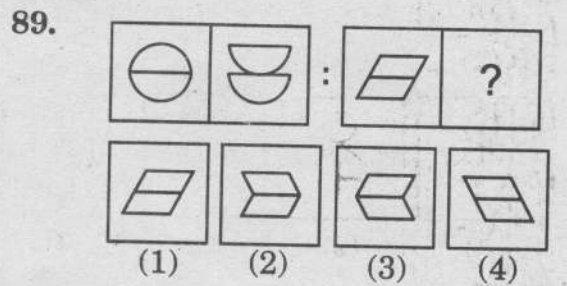
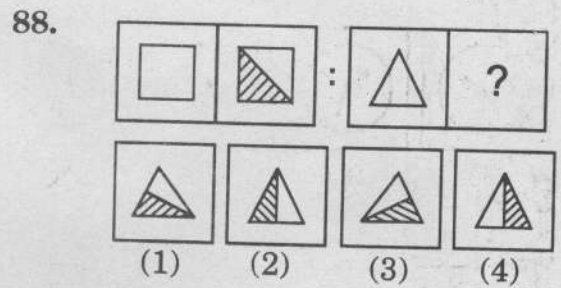
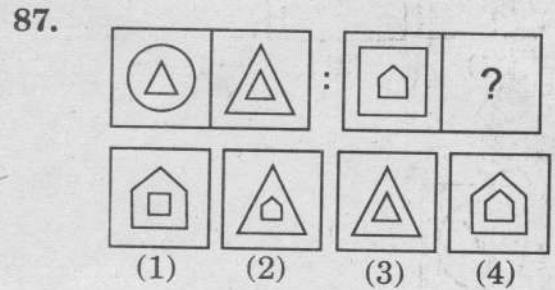
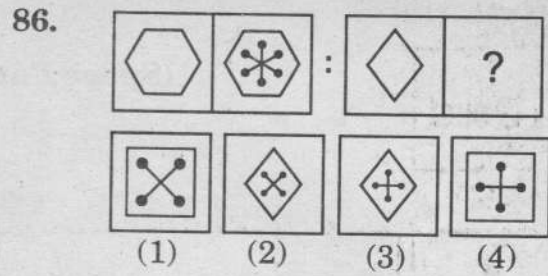
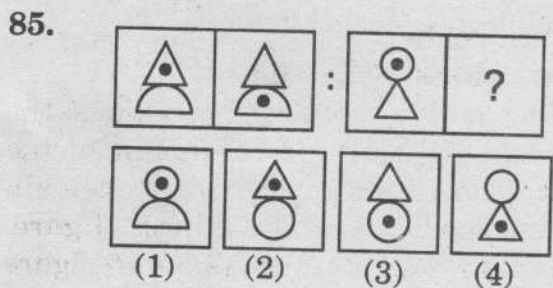
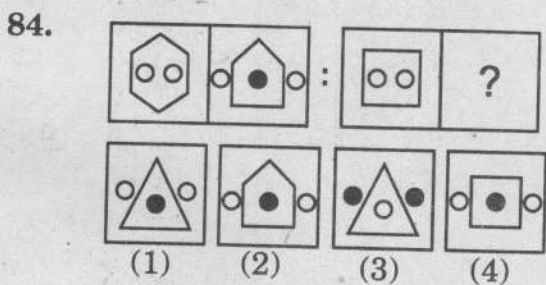
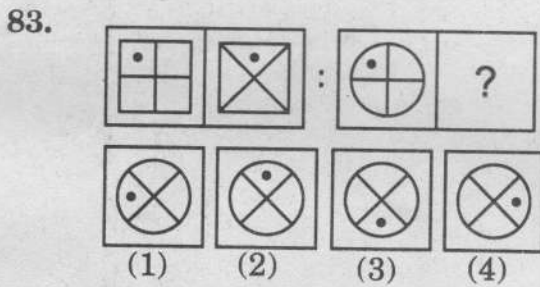
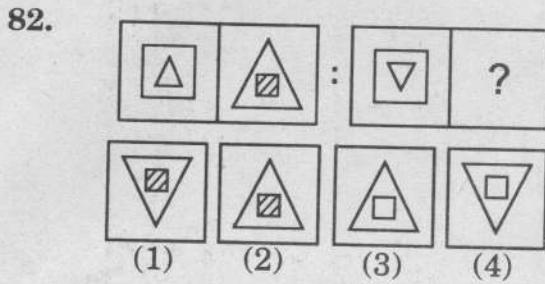
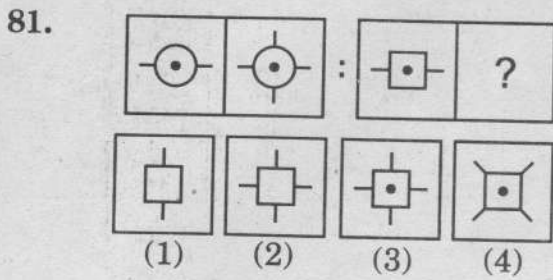
(4)

Directions :

Questions (81 to 90) :

In each of the following questions, the second figure in the first unit of the problem figure bears a certain relationship to the first figure. Similarly one of the answer figure

bears the same relationship to the first figure of the second problem figures. Therefore you have to locate the figure, which would fit the Question mark.



PART - II
SCHOLASTIC TEST

Time : 90 Minutes

Max. Marks : 90

Note :

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

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

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

PHYSICS (Ques. 91 to 102)

91. The diagram showing all the forces acting on objective at a particular instant is
- (1) FBD (Free body diagram).
 - (2) Free fall diagram.
 - (3) Free objective diagram.
 - (4) None.
92. A force can change of a body.
- (1) shape
 - (2) direction
 - (3) speed
 - (4) all the above.
93. The length of the spring is proportional to
- (1) size of the spring.
 - (2) thickness of spring.
 - (3) volume of spring.
 - (4) the applied force.
94. The intensity of Sound is measured in
- (1) Decibel
 - (2) Meter
 - (3) Kg
 - (4) Newton
95. Sound travel much faster in
- (1) solids
 - (2) liquids
 - (3) gases
 - (4) plasma
96. The sound produced in our normal conversation is about dB.
- (1) 0
 - (2) 120
 - (3) 60
 - (4) 140
97. The image in plane mirror suffers
- (1) inversion
 - (2) vertical
 - (3) lateral inversion
 - (4) None
98. mirror is used in Periscope.
- (1) Convex
 - (2) Concave
 - (3) Plane
 - (4) None

99. The metallic rods or plates used in Electrolysis is called

- (1) Electrodes
- (2) Electric charges
- (3) Pyrolysis
- (4) None

100. is useful to join or break the circuit.

- (1) Cell
- (2) Key
- (3) Battery
- (4) Resistor

101. is useful as tester.

- (1) LED
- (2) Magnet
- (3) Fuse
- (4) None

102. Unlike magnetic poles, each other.

- (1) repel
- (2) attract
- (3) both
- (4) None

CHEMISTRY (Ques. 103 to 113)

103. is used to make coins.
 (1) alloy of Copper and Iron.
 (2) alloy of Copper and Aluminium.
 (3) alloy of Zinc and Iron.
 (4) alloy of Zinc and Aluminium.
104. A non-metal which is a good conductor of heat and electricity ...
 (1) Silicon
 (2) Sulphur
 (3) Phosphorus
 (4) Graphite
105. Artificial fibre made from Cellulose
 (1) Rayon
 (2) Silk
 (3) Wool
 (4) Cotton
106. Which of following is not a fossil fuel ?
 (1) Petroleum
 (2) Coal
 (3) Bio-diesel
 (4) Natural gas
107. When a candle is lightened, a flame is formed. In that flame in which zone, wax gets vapourized
 (1) Dark zone.
 (2) Outer most zone.
 (3) Blue zone.
 (4) Middle zone.
108. These materials are used to make Electric cell. Electrolyte among them
 (1) Positive electrode.
 (2) Negative electrode.
 (3) Copper wires.
 (4) Dilute Sulphuric acid.
109. Which of the following is not a correct precaution to get fine coating by electroplating ?
 (1) The object to be electroplated should apply greasy matter.
 (2) The surface of the article should be rough.
 (3) The concentration of the electrolyte should be so adjusted as to get smooth coating.
 (4) Current must be the same throughout.
110. Which of the following is a strong fibre ?
 (1) Rayon (2) Nylon
 (3) Cotton (4) Wool
111. Match the items in Part-A with one in Part-B.
- | Part-A | Part-B |
|--------------------------------------|-----------------------|
| (i) Metal oxide | (a) Platinum. |
| (ii) Non-metal oxide | (b) Hydrogen. |
| (iii) Reaction of metals with acids. | (c) acidic in nature. |
| (iv) Does not react with air. | (d) base in nature. |
- (1) *i - b, ii - c, iii - d, iv - a.*
 (2) *i - a, ii - b, iii - c, iv - d.*
 (3) *i - d, ii - c, iii - b, iv - a.*
 (4) *i - a, ii - d, iii - c, iv - b.*
112. The recycle symbol of plastic used to preserve cool drinks.
 (1) 2 (2) 1
 (3) 3 (4) 4
113. The property of drawing metals into sheet is
 (1) Ductility (2) Malleability
 (3) Lustrous (4) Sonority

BIOLOGY (Ques. 114 to 125)

114. Which micro-organisms group, does Chlamydomonas belong to

- (1) Fungi
- (2) Algae
- (3) Bacteria
- (4) Virus

115. Which reproduction system consists of the Fallopian tubes ?

- (1) Asexual reproduction.
- (2) Budding.
- (3) Male reproductive system.
- (4) Female reproductive system.

116. Identify the INCORRECT pair from the following.

- (1) Tobacco - Smut disease.
- (2) Groundnut - Tikka disease.
- (3) Lemon - Citrus canker.
- (4) Sugarcane - Red rot.

117. Short night duration crop means

- (1) Flowering will be more when the night duration is shorter than $12\frac{1}{2}$ hrs.
- (2) Short day plants.
- (3) Day neutral plants.
- (4) Flowering will be more when the night duration is more than $12\frac{1}{2}$ hrs.

118. Kangaroo belongs to

- (1) Endangered species.
- (2) Extinct species.
- (3) Endemic species.
- (4) Enrolled in Red data book.

119. Match the following columns and choose the correct answer from the option given below.

- | | |
|----------------------------|------------------------|
| (a) Alexander Fleming | (i) Pasteurisation. |
| (b) Edward Jenner | (ii) Tetracycline. |
| (c) Louis Pasteur | (iii) Penicillin. |
| (d) Yellapragada Subba Rao | (iv) Smallpox vaccine. |

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

120. Stain used in the experiment of "observing the nucleus in onion peel cells".

- (1) Crystal violet.
- (2) Methylene blue.
- (3) Glycerin.
- (4) Hydrochloric acid.

121. Which one is not the ancient practice of irrigation ?

- (1) Yatam
- (2) Mota bavi
- (3) Chain pump
- (4) Drip irrigation

122. Many adolescent boys and girls get pimples on the face, because of.....

- (1) increase in height.
- (2) increased activity of sweat glands and sebaceous glands in the skin.
- (3) Secondary sexual characters.
- (4) Adrenaline hormone.

123. Identify the INCORRECT food chain from the following.

- (1) Grass → Rabbit → Fox.
- (2) Grass → Insect → Crow → Fox.
- (3) Grass → Rabbit → Human being.
- (4) Grass → Squirrel → Rabbit → Fox.

124. Which of the following behave like non-living things when they are outside a living cell ?

- (1) Bacteria
- (2) Fungi
- (3) Virus
- (4) Microarthropods

125. Identify the following picture.



- (1) Binary fission in Amoeba.
- (2) Budding in Hydra.
- (3) Cloning of Dolly.
- (4) Transplantation in Paddy.

MATHEMATICS (Ques. 126 to 145)

126. The value of

$$(6^{-1} - 8^{-1})^{-1} + (2^{-1} - 3^{-1})^{-1} \text{ is}$$

- (1) 10
- (2) 20
- (3) 30
- (4) 40

127. A shirt is sold for ₹ 240 after allowing a discount of 25%, then its marked price (in rupees) is

- (1) 115
- (2) 320
- (3) 240
- (4) 50

128. The standard form of 15240000 is

- (1) 1.524×10^7
- (2) 1.524×10^6
- (3) 15.24×10^7
- (4) 1.524×10^8

129. From a rope of length $36\frac{1}{3}$ m, if three parts measuring $12\frac{2}{5}$ m, $13\frac{1}{2}$ m and $5\frac{4}{15}$ m are cut, then the length (in m) of the remaining rope is

- (1) $11\frac{2}{5}$
- (2) $9\frac{1}{6}$
- (3) $7\frac{2}{5}$
- (4) $5\frac{1}{6}$

130. If two adjacent sides of a parallelogram are 4 cm and 9 cm, then the ratio of their altitudes is

- (1) 16 : 81
- (2) 9 : 4
- (3) 4 : 9
- (4) 3 : 2

131. The value of

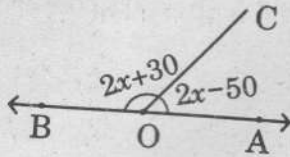
$$\sqrt{248 + \sqrt{52 + \sqrt{144}}} \text{ is}$$

- (1) 12
- (2) 14
- (3) 16
- (4) 18

132. If $\frac{3x+1}{16} + \frac{2x-3}{7} = \frac{x+3}{8} + \frac{3x-1}{14}$, then the value of 'x' is

- (1) 5
- (2) 10
- (3) -14
- (4) 12

133. The value of 'x' for which AOB is a straight line is



- (1) 30°
- (2) 45°
- (3) 49°
- (4) 50°

134. The sum of reciprocals of all positive integers that divide 24 is

- (1) $\frac{7}{2}$
- (2) $\frac{1}{2}$
- (3) $\frac{5}{2}$
- (4) $\frac{3}{2}$

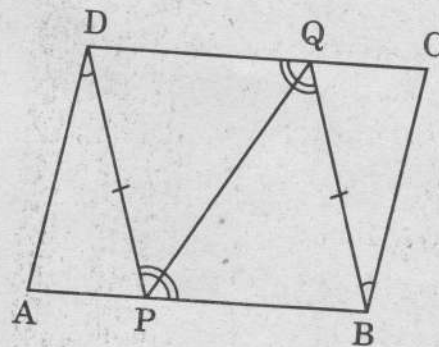
135. The L.C.M. of 5, 8, 12, 20 is not a multiple of

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

136. If a polyhedron has 12 vertices and 8 faces, then the number of edges of it is

- (1) 12
- (2) 14
- (3) 16
- (4) 18

137. In the given figure, if $DP = BQ$, $\angle ADP = \angle CBQ$ and $\angle DPB = \angle DQB$, then $\triangle ADP$ is congruent to



- (1) $\triangle CBQ$
- (2) $\triangle PDQ$
- (3) $\triangle QBC$
- (4) $\triangle PQB$

138. Area of Rhombus is 90cm^2 . If the length of one diagonal is 10 cm, then the length of the other diagonal (in cm) is

- (1) 18
- (2) 9
- (3) 36
- (4) 4.5

139. In a hostel, there was enough food for 200 students for 20 days. If 50 new students joined them, then the food will last for

- (1) 15 days
- (2) 16 days
- (3) 17 days
- (4) 18 days

140. The simplified form of

$$-[-2x - \{3y - (2x - 3y) + (3x - 2y)\} + 2x]$$

is

- (1) x
- (2) $x + 4y$
- (3) $x - 4y$
- (4) $x + y$

141. The compound interest on ₹ 1000 at 10 % per annum for 2 years compounded annually is

- (1) ₹ 190
- (2) ₹ 1210
- (3) ₹ 200
- (4) ₹ 210

142. If the difference between selling prices of a shirt at a profit of 10% and 15% is ₹ 10, then its cost price is

- (1) ₹ 110
- (2) ₹ 115
- (3) ₹ 150
- (4) ₹ 200

143. Four angles of a quadrilateral are in the ratio of 3 : 5 : 7 : 9, then the greatest angle is

- (1) 125°
- (2) 75°
- (3) 135°
- (4) 120°

144. If $\frac{10}{3} \cdot 3^x - 3^{x-1} = 81$, then the value of 'x' is

- (1) 2
- (2) 1
- (3) 3
- (4) 0

145. If length of a rectangle increases by 50% and breadth decreases by 50%, then its area

- (1) decreases by 25%.
- (2) increases by 25%.
- (3) decreases by 50%.
- (4) remains same.

HISTORY
(Ques. 146 to 155)

146. Who argued that the British Government should act as a father figure protecting the riots ?
- (1) Sir Arthur Cotton
 - (2) Thomas Munro
 - (3) Cornwallis
 - (4) Lord William Bentinck
147. Who started "Jagan Mitra Mandali" to spread awareness among dalits by using popular folk arts ?
- (1) Bhagya Reddy Varma
 - (2) Arigey Ramaswamy
 - (3) Narayana Guru
 - (4) Jyotiba Phule
148. Which dance was performed to worship lord Shiva aggressively in front of a Nataraj idol at the Shiva temples and to motivate soldiers before going to wars ?
- (1) Dappu Natyam
 - (2) Kathakali
 - (3) Yakshagana
 - (4) Perini Natyam
149. Who visited Rudramadevi's kingdom and said that she was fearless, dressed herself like a man and rode horse with ease ?
- (1) Marco Polo
 - (2) Abdul Razzak
 - (3) Domingo Paes
 - (4) Nuniz
150. Find out the correctly matched.
- | A | B |
|--------------------|--|
| (a) Vellanvagai | (i) land donated to Jain institutions. |
| (b) Brahmadeya | (ii) land gifted to Brahmins. |
| (c) Shalabhoga | (iii) land of non-brahmin properties. |
| (d) Pallichchandam | (iv) land for the maintenance of a school. |
- | | | | | |
|-----|-------|-------|------|------|
| | (a) | (b) | (c) | (d) |
| (1) | (ii) | (iii) | (iv) | (i) |
| (2) | (iii) | (ii) | (i) | (iv) |
| (3) | (iv) | (iii) | (i) | (ii) |
| (4) | (iii) | (ii) | (iv) | (i) |

151. Which religious policy was also called the Great middle path ?
- (1) Hinduism
 - (2) Buddhism
 - (3) Jainism
 - (4) Christianity
152. Who composed the poetic work Amuktamalyada on the life of Andal, the Tamil bhakta poetess ?
- (1) Allasani Peddanna
 - (2) Mukku Thimmana
 - (3) Sri Krishna Devaraya
 - (4) Tenali Ramakrishna
153. Zabt means
- (1) Revenue system
 - (2) Military system
 - (3) Foreign policy
 - (4) Religious policy
154. The slogan "Do or Die" was given at the time of this movement
- (1) Swadeshi movement.
 - (2) Non-cooperation movement.
 - (3) Civil disobedience movement.
 - (4) Quit India movement.
155. Who was the first chief minister of Hyderabad state ?
- (1) Burgula Rama Krishna Rao
 - (2) Ravi Narayan Reddy
 - (3) Konda Lakshman Bapuji
 - (4) Jamalapuram Keshava Rao

GEOGRAPHY (Ques. 156 to 165)

156. Political maps give information about

- (1) Climate
- (2) Countries
- (3) Rainfall
- (4) Mountains

157. The correct statement of the following is

- (1) Temperature does not change as we go South from the equator.
- (2) Temperature increases as we go North from the equator.
- (3) Temperature decreases with elevation.
- (4) Places near the poles usually get more heat.

158. Study the following table. It shows the time of Sunrise and Sunset in different cities of India on 10th January.

Answer the question given below.

Place	Sunrise	Sunset
Hyderabad	6 : 49	5 : 58
Madurai	6 : 37	6 : 12
Nagpur	6 : 53	5 : 48
Agra	7 : 09	5 : 42
Kohima	6 : 02	4 : 40

In which of these cities does the Sunset last ?

- (1) Hyderabad
- (2) Kohima
- (3) Agra
- (4) Madurai

159. The motion of the earth around the Sun is called

- (1) Rotation
- (2) Revolution
- (3) Precipitation
- (4) Climate

160. The incorrect statement of the following is

- (i) Tundra means very cold.
- (ii) Tundra region gets very little Sunlight.
- (iii) During the month of December, the Sun does not set at all in Tundra region.
- (iv) Due to the severe cold in Tundra region, the birds leave this region and migrate elsewhere.

- (1) (i)
- (2) (ii)
- (3) (iii)
- (4) (i), (iv)

161. Thorny forests are found in

- (1) Nalgonda
- (2) Hyderabad
- (3) Warangal
- (4) Nizamabad

162. The renewable resource of the following is

- (1) Gold
- (2) Coal
- (3) Wood
- (4) Petroleum

163. 'Condensation' means

- (1) change of water into vapours.
- (2) change of water vapour into water.
- (3) formation of clouds.
- (4) increase of temperature.

164. The programme started by the government of Telangana for minor irrigation tanks in the state is

- (1) Mission Bhagiratha
- (2) Rythu Bandhu
- (3) Mission Telangana
- (4) Mission Kakatiya

165. The correct pair of the following is

- (1) Africa - The Ural mountains.
- (2) Europe - The river Rhine.
- (3) Africa - Spain.
- (4) Europe - Egypt.

POLITICAL SCIENCE (Ques. 166 to 175)

166. The wrong statement of the following is

- (1) The upper house is known as the Legislative Assembly.
- (2) Legislative Assembly is the most important body for making laws in a state.
- (3) MLAs are elected by the people.
- (4) The State Legislature must meet at least twice a year.

167. The officer, who keeps the track of records of the land at Mandal level is

- (1) Village Revenue Officer.
- (2) District Collector.
- (3) Mandal Revenue Officer.
- (4) Village Sarpanch.

168. To contest Assembly Elections one should have

- (1) 25 years of age.
- (2) 20 years of age.
- (3) 30 years of age.
- (4) 18 years of age.

169. Every year, the Republic Day is celebrated on

- (1) August 15.
- (2) January 25.
- (3) August 26.
- (4) January 26.

170. The wrong pair of the following is

- (1) Secular - Freedom to follow any Religion.
- (2) Democratic- People enjoy equal Political Rights.
- (3) Socialist - Wealth is not shared equally by all.
- (4) Republic - The head of the state is an elected person.

171. 'Right of children to free and compulsory education Act' is passed to ensure

- (1) all children get Right to work and earn.
- (2) all children get quality education.
- (3) all children get Right to vote.
- (4) all children get Right to contest the elections.

172. The Rajya Sabha can have a maximum of

- (1) 543 members.
- (2) 250 members.
- (3) 119 members.
- (4) 350 members.

173. Which of the following is not related to Elections ?

- (1) Ballot
- (2) EVM
- (3) Voter's list
- (4) ATM

174. The highest court of a state is

- (1) Supreme court
- (2) District court
- (3) High court
- (4) Special court

175. The term related to Fair Trial is

- (i) Accused
- (ii) FIR
- (iii) Political party
- (iv) Judgement

- (1) (i) only.
- (2) (i), (iii) only.
- (3) (iv) only.
- (4) (i), (ii), (iv) only.

ECONOMICS
(Ques. 176 to 180)

176. The cooperative societies are meant to help

- (1) traders
- (2) middle men
- (3) weavers
- (4) consumers

177. Which of the following words is not related to a factory ?

- (1) Bonus
- (2) Working hours
- (3) Pollution
- (4) Handicrafts

178. The words that are related to a Bank are

- (i) Cash deposit
 - (ii) ATM
 - (iii) Loan
 - (iv) Cheque
- (1) (i)
 - (2) (i), (ii), (iii), (iv)
 - (3) (iii)
 - (4) (ii), (iv)

179. Study the table and answer the question given below :

PRODUCTION OF FOOD GRAINS IN INDIA	
PERIOD	PRODUCTION (IN MILLION TONNES)
1961 - 75	101
1976 - 90	157
1991 - 2009	229

The increase in the production of food grains from 1975 to 2009 is

- (1) 229 million tonnes.
- (2) 101 million tonnes.
- (3) 128 million tonnes.
- (4) 157 million tonnes.

180. Which of the following factors would be considered to decide a person is under 'Below Poverty Line' (BPL) ?

- (i) Family's income.
 - (ii) Means of livelihood.
 - (iii) Number of meals per day.
 - (iv) Housing.
- (1) (iii)
 - (2) (i), (ii), (iii), (iv)
 - (3) (iv)
 - (4) (i), (ii)