

ENGLISH

Roll No.

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NMMS(E)

NMMS - DECEMBER, 2023

MENTAL ABILITY AND SCHOLASTIC APTITUDE TEST

Time : Part - I : 90 Minutes

Time : Part - II : 90 Minutes

Max. Marks : 90

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 correct answer. Indicate as per the "Instructions".

1. 4, 6, 8, 9, 10, 12, 14,
 (1) 15
 (2) 16
 (3) 17
 (4) 18
2. 47, 43, 41, 37, 31, , 23
 (1) 24
 (2) 29
 (3) 26
 (4) 30
3. 429, 924, 635, 536, 729, 927, 493,
 (1) 943
 (2) 934
 (3) 394
 (4) 439
4. 400, 361, 324, 289, 256,
 (1) 220
 (2) 240
 (3) 225
 (4) 249
5. 4, 8, 16, 32, 64, 128,
 (1) 266
 (2) 356
 (3) 456
 (4) 256
6. 2, 6, 18, 54, 162,
 (1) 586
 (2) 486
 (3) 686
 (4) 786
7. 2, 2, 4, 12, 48, 240,
 (1) 1440
 (2) 1540
 (3) 1940
 (4) 1850
8. 14, 16, 18, 20, , 24, 26
 (1) 21
 (2) 24
 (3) 22
 (4) 29
9. 6, 13, 20, 27, 34, 41, 48,
 (1) 50
 (2) 55
 (3) 65
 (4) 75
10. 1, 4, 3, 16, 5, 36, 7,
 (1) 9
 (2) 81
 (3) 8
 (4) 64

Directions :

Questions (11 to 20) :

In these questions a letter series is given and candidates are asked to either insert a missing letter or find the one that does NOT follow the pattern of the series.

11. A, E, I, O,
 (1) M
 (2) N
 (3) A
 (4) U
12. AZ, BY, CX,
 (1) IR
 (2) IV
 (3) DW
 (4) DV
13. PUF, QVG, RWH, SXI,
 (1) TYK
 (2) TYJ
 (3) TZJ
 (4) TXJ
14. A, CD, GHI, , UVWXY.
 (1) MNOP
 (2) LMNO
 (3) NOPQ
 (4) JKLM
15. AB, DEF, HIJK, , STUVWX.
 (1) MNOP
 (2) NOPQR
 (3) MNOPQ
 (4) LMNOP
16. A — BBC — AAB — CCA — BBCC
 (1) ACBA
 (2) BACB
 (3) ABBA
 (4) AABC

17. BC — B — C — B — CCB

- (1) BBCB
- (2) CBBC
- (3) CBCB
- (4) CCBB

18. C — BBB — ABBBB — AB BB —

- (1) BACBB
- (2) AABCB
- (3) ABACB
- (4) ABCCB

19. C — BCCD — CCDB — CDBCC — BC

- (1) DBCD
- (2) DBDD
- (3) BDAA
- (4) BDCD

20. BA — B — AAB — A — B

- (1) AABB
- (2) BABB
- (3) BAAB
- (4) ABBA

Directions :

Questions (21 to 30) :

In these questions, a word consisting of four letters is written according to some code. Using the same code another word may be written as one of the four alternative for each question.

21. BEAT is written as GIDV, SOUP may be written as

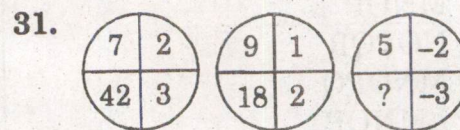
- (1) XSYR
- (2) XYXR
- (3) XSRX
- (4) XSXR

22. MILD is written as HEIB, GATE may be written as
- (1) BQWC
 - (2) BWQC
 - (3) BQCW
 - (4) BCWQ
23. POUR is written as RSAZ, WAKE may be written as
- (1) EYGT
 - (2) TGEY
 - (3) YEGM
 - (4) YGET
24. COLD is written as ALHY, IRON may be written as
- (1) GUKI
 - (2) GUSI
 - (3) GKOI
 - (4) GKUI
25. GONE is written as ILPB, CRIB may be written as
- (1) EYKO
 - (2) EUKY
 - (3) EKUY
 - (4) EYUK
26. HAND is written as FXRI, ROTE may be written as
- (1) LPIX
 - (2) PLXJ
 - (3) LIPX
 - (4) LXJP
27. POND is written as RSTL, HEAR may be written as
- (1) JKLZ
 - (2) GHIZ
 - (3) GHIJ
 - (4) JIGZ
28. LEFT is written as NALL, HOLD may be written as
- (1) JKRV
 - (2) KJRV
 - (3) JRKV
 - (4) JVRK
29. SKEW is written as POCY, MUST may be written as
- (1) QJVV
 - (2) QYVJ
 - (3) JYQV
 - (4) QVYJ
30. THEN is written as RLBS, CASE may be written as
- (1) PAEP
 - (2) EAPP
 - (3) AEPJ
 - (4) APEP

Directions :

Questions (31 to 40) :

In these questions, a figure is divided into parts. Each part bears a number and one is blank. Numbers are given on the basis of a certain rule. You have to find out the number among the given alternatives and indicate your correct sequence.



- (1) 13
- (2) 18
- (3) 30
- (4) -30

32.

5	6	7
3	4	5
9	10	11
345	460	?

- (1) 735
- (2) 775
- (3) 535
- (4) 577

33.

	9			15	
4	58	8	9	?	8
	10			10	

- (1) 63
- (2) 78
- (3) 100
- (4) 117

34.

4	6	3	8
2	8	4	4
6	5	?	10

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

35.

2	3
30	5

5	1
-5	-1

4	3
?	-1

- (1) 7
- (2) -12
- (3) 12
- (4) 9

36.

15	22
16	9

13	11
7	9

21	?
15	13

- (1) 23
- (2) 19
- (3) 20
- (4) 22

37.

51	63	29
26	14	48
5	8	?
410	680	588

- (1) 9
- (2) 6
- (3) 5
- (4) 7

38.

1	2	3
4	5	6
7	8	9
27	38	?

- (1) 49
- (2) 50
- (3) 51
- (4) 52

39.

1	2	3
4	5	6
7	8	9
12	15	?

- (1) 21
- (2) 24
- (3) 27
- (4) 18

40.

3	5	7
4	9	8
2	3	?
5	11	10

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

Directions :

Questions (41 to 50) :

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 another side of ::, while another word is to be found from the given alternatives having the same relation with this word as the words of the given pair bear. Choose the correct alternative.

41. Moon : Satellite :: Earth : ?

- (1) Sun
- (2) Planet
- (3) Solar System
- (4) Asteroid

42. Forecast : Future :: Regret : ?

- (1) Present
- (2) Atone
- (3) Past
- (4) Sins

43. Influenza : Virus :: Typhoid : ?

- (1) Bacillus
- (2) Parasite
- (3) Protozoa
- (4) Bacteria

44. Fear : Threat :: Anger : ?

- (1) Compulsion
- (2) Panic
- (3) Provocation
- (4) Force

45. Melt : Liquid :: Freeze : ?

- (1) Ice
- (2) Condense
- (3) Solid
- (4) Crystal

46. Clock : Time :: Thermometer : ?

- (1) Heat
- (2) Radiation
- (3) Energy
- (4) Temperature

47. Muslims : Mosque :: Sikhs : ?

- (1) Golden Temple
- (2) Medina
- (3) Fire Temple
- (4) Gurudwara

48. Paw : Cat :: Hoof : ?

- (1) Horse
- (2) Lion
- (3) Lamb
- (4) Elephant

49. Eye : Myopia :: Teeth : ?

- (1) Pyorrhoea
- (2) Cataract
- (3) Trachoma
- (4) Eczema

50. Tractor : Trailer :: Horse : ?

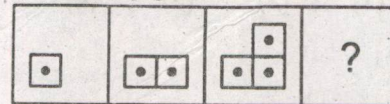
- (1) Stable
- (2) Cart
- (3) Saddle
- (4) Engine

Directions :

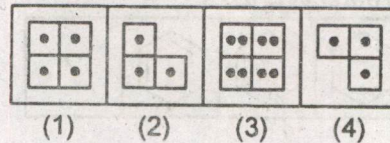
Questions (51 to 60) :

In each of the question, four problem figures are given. Select a figure from amongst the answer figures which will continue the same series as given in the problem figures.

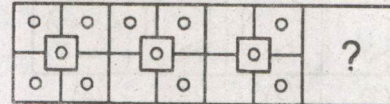
51. Problem figures



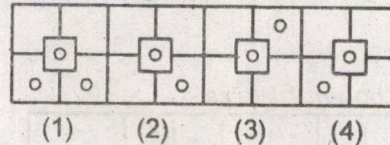
Answer figures



52. Problem figures



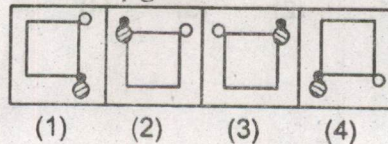
Answer figures



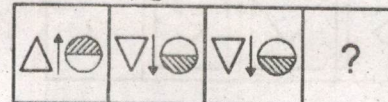
53. Problem figures



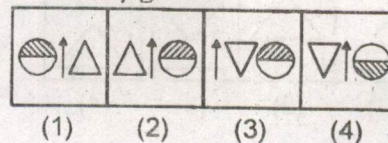
Answer figures



54. Problem figures



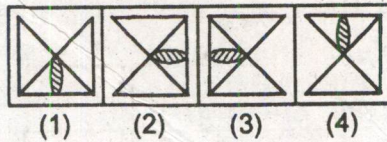
Answer figures



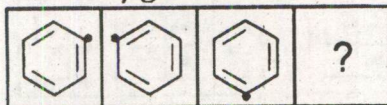
55. Problem figures



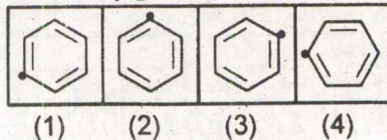
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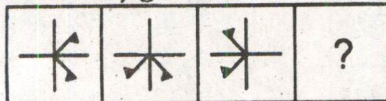
56. Problem figures



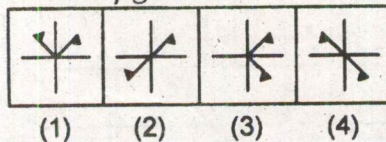
Answer figures



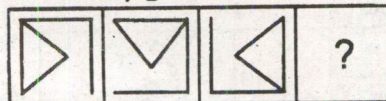
57. Problem figures



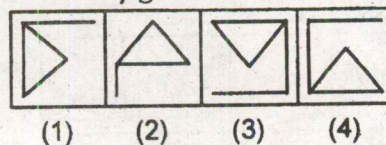
Answer figures



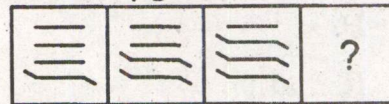
58. Problem figures



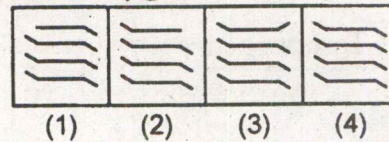
Answer figures



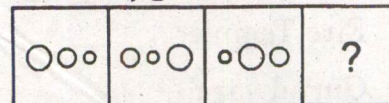
59. Problem figures



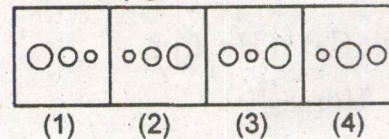
Answer figures



60. Problem figures



Answer figures

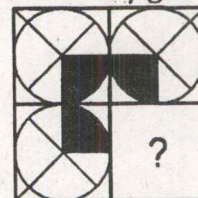


Directions :

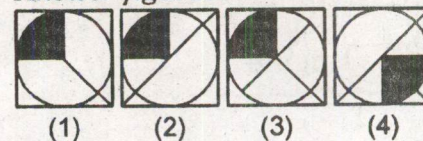
Questions (61 to 70) :

In Questions, problem figure is given to the left side of the line, which is incomplete. One out of the four alternative answer figures (1), (2), (3) and (4) can complete the same. You have to locate the answer figure which if inserted in the problem figure without changing the direction completes the same.

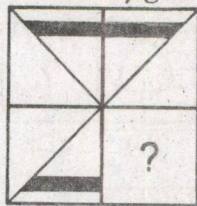
61. Problem figure



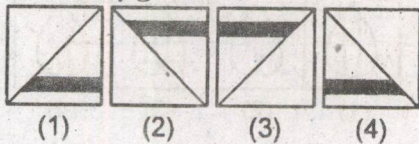
Answer figures



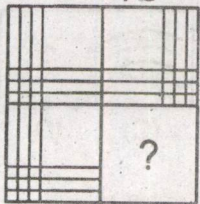
62. Problem figure



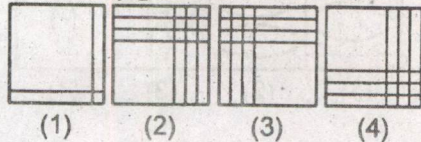
Answer figures



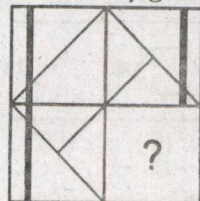
63. Problem figure



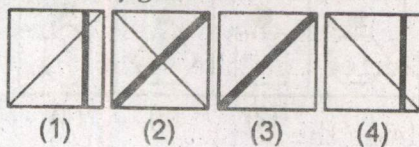
Answer figures



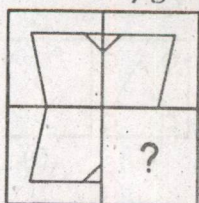
64. Problem figure



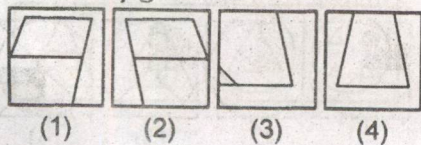
Answer figures



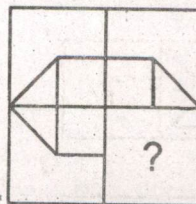
65. Problem figure



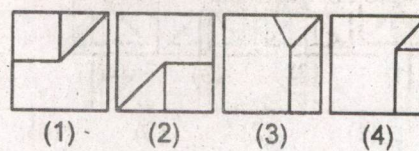
Answer figures



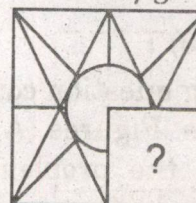
66. Problem figure



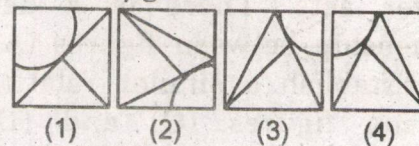
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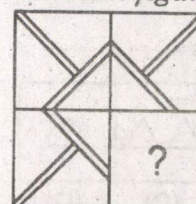
67. Problem figure



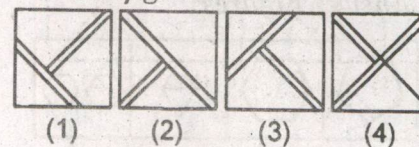
Answer figures



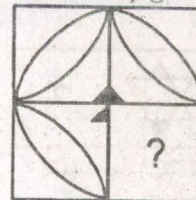
68. Problem figure



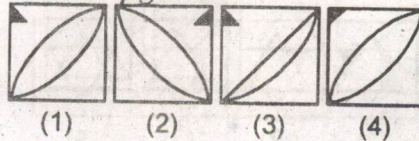
Answer figures



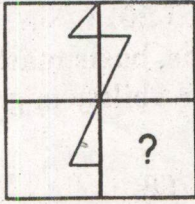
69. Problem figure



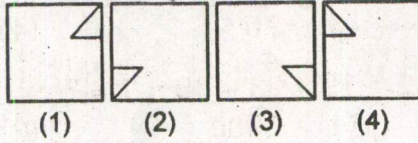
Answer figures



70. Problem figure



Answer figures

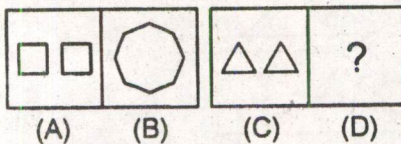


Directions :

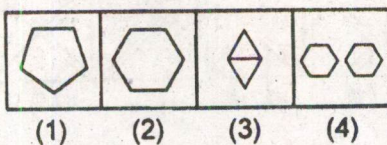
Questions (71 to 80) :

Each of the following question consists of two sets of figures. Figures (A), (B), (C), (D) constitutes the problem set, while (1), (2), (3) and (4) constitutes answer sets. There is a definite relationship between figures (A) and (B). Establish a similar relationship between figures (C) and (D) by choosing a suitable figure from answer set.

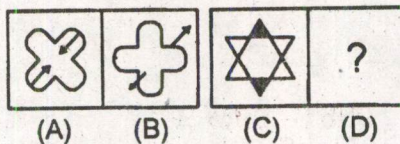
71. Problem Figures



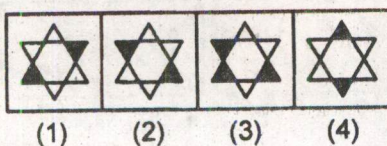
Answer Figures



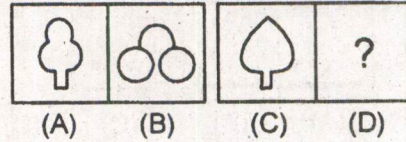
72. Problem Figures



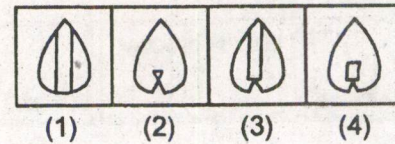
Answer Figures



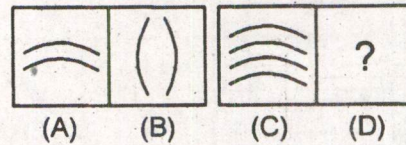
73. Problem Figures



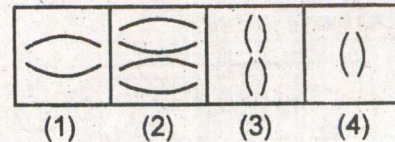
Answer Figures



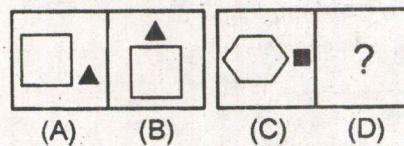
74. Problem Figures



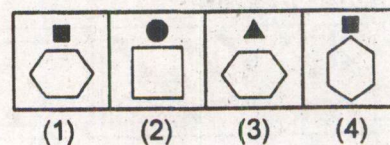
Answer Figures



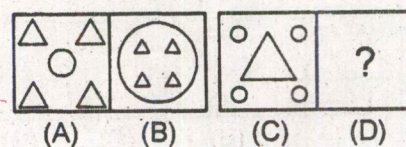
75. Problem Figures



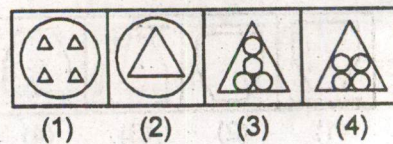
Answer Figures



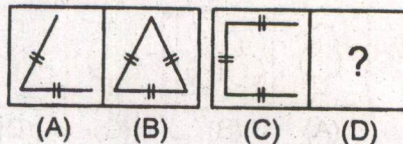
76. Problem Figures



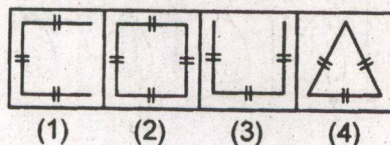
Answer Figures



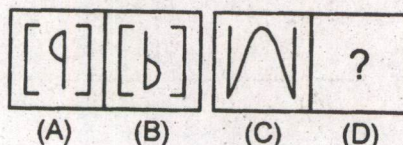
77. Problem Figures



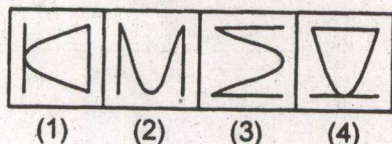
Answer Figures



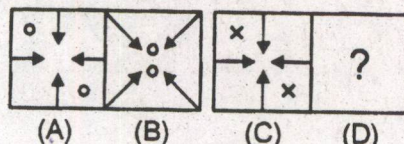
78. Problem Figures



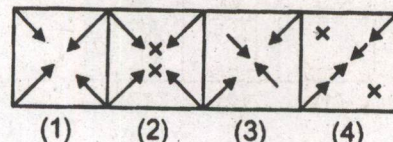
Answer Figures



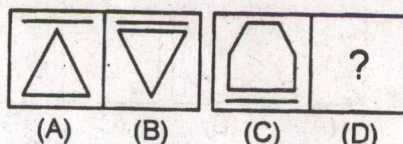
79. Problem Figures



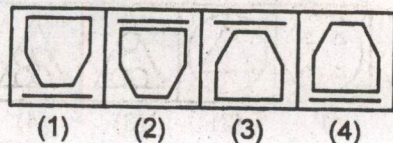
Answer Figures



80. Problem Figures



Answer Figures



Directions :

Questions (81 to 90) :

In these questions, basic mathematical skill and number ability is going to be verified.

81. $32 \times \dots = 768.$

- (1) 24 (2) 12
(3) 16 (4) 28

82. $19 \times 93 + 19 \times 7 = ?$

- (1) 1900 (2) 1993
(3) 2000 (4) 2190

83. $16 \times 16 + 128 + 4 \times 4 = ?$

- (1) 20 (2) 100
(3) 400 (4) 500

84. 30% of 700.

- (1) 21
(2) 120
(3) 210
(4) 100

85. 20% of 120 + 35% of 200 = ?

- (1) 84 (2) 64
(3) 70 (4) 94

86. $\frac{32 + 16 \times 0.25}{10 - 4}$

- (1) 8 (2) 6
(3) 4 (4) 16

87. $24 + 3x = 140 + x, x = ?$

- (1) 54 (2) 57
(3) 58 (4) 68

88. $16\frac{2}{3}\%$ of 216 = ?

- (1) 6 (2) 36
(3) 16 (4) 70

89. $996^2 - 995^2 = ?$

- (1) 0 (2) 1
(3) 100 (4) 1991

90. $436 \div 1000 = ?$

- (1) 4.36 (2) 43.6
(3) 0.436 (4) 0.0436

(Space For Rough Work)

PART - II
SCHOLASTIC TEST

Time : 90 Minutes

Max. Marks : 90

Note :

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

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

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

(Space for Rough Work)

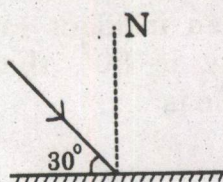
PHYSICS (Ques. 91 to 102)

91. Match items in coloumn 'A' with one item in coloumn 'B'.

A	B
(i) Number of satellites of Jupiter.	(a) Mercury
(ii) Inner planet	(b) Saturn
(iii) Outer planet	(c) 69
(iv) Number of satellites of Saturn.	(d) Great bear
(v) Constellation	(e) 62

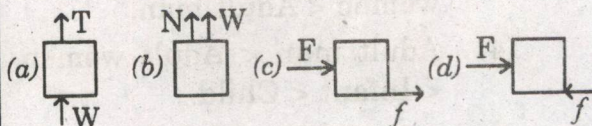
- (1) i - c, ii - a, iii - b, iv - e, v - d.
 (2) i - c, ii - b, iii - a, iv - e, v - d.
 (3) i - e, ii - a, iii - b, iv - c, v - d.
 (4) i - e, ii - b, iii - a, iv - c, v - d.

92. Observe the given diagram. A light ray making 30° angle with plane mirror, then reflected angle of the ray is



- (1) 30°
 (2) 90°
 (3) 60°
 (4) 45°

93. Observe the following Free body diagrams, correct FBD among them is



- (1) only 'a'.
 (2) both 'c' and 'd'.
 (3) both 'a' and 'c'.
 (4) only 'c'.

94. Tools meant for cutting are always sharp edge. The reason is

- (1) Sharp edge has less contact area so pressure exerted by tool is more.
 (2) Sharp edge has less contact area so pressure exerted by tool is less.
 (3) Sharp edge has more contact area so pressure exerted by tool is less.
 (4) Sharp edge has more contact area so pressure exerted by tool is more.

95. In which of the following, sound transmission is less.

- (1) Liquid
 (2) Vacuum
 (3) Gases
 (4) Solids

96. Pitch of voices of the following is in ascending order.

- (1) Adult women < Adult man < Child < Infant.
- (2) Adult man < Adult women < Child < Infant.
- (3) Infant < Child < Adult women < Adult man.
- (4) Adult man < Adult women < Infant < Child.

97. Number of vibrations per second indicates

- (1) Pitch
- (2) Feebleness
- (3) Decibels
- (4) Frequency

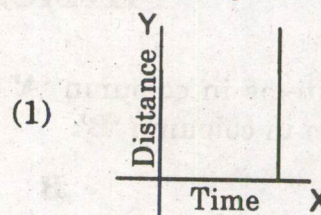
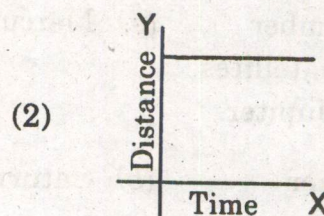
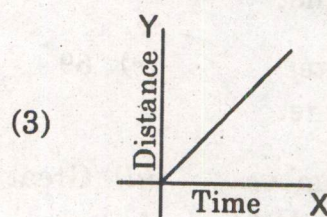
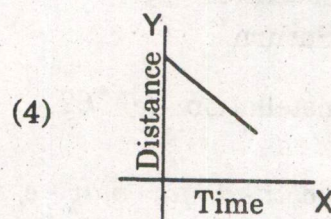
98. Correct sentence from the following is

- (1) Glass rod gains negative charge when it is rubbed by silk cloth.
- (2) Glass rod gains positive charge when it is rubbed by silk cloth.
- (3) Plastic straw gains negative charge when it is rubbed by polythene sheet.
- (4) Plastic straw gains positive charge when it is rubbed by polythene sheet.

99. Slope of the distance-time graph gives

- (1) Travelled time.
- (2) Travelled distance.
- (3) Speed
- (4) Velocity

100. Which of the following graph represents body is at rest ?



101. Friction acting on a flying aeroplane is

- (1) Static friction
- (2) Rolling friction
- (3) Sliding friction
- (4) Fluid friction

102. A light ray incidents on a plane mirror and reflected that ray. The angle between incident ray and reflected ray is 80° , then the incident angle is

- (1) 80°
- (2) 10°
- (3) 90°
- (4) 40°

CHEMISTRY (Ques. 103 to 113)

103. Vinegar is prepared from

- (1) diluted hydrochloric acid.
- (2) diluted sulphuric acid.
- (3) diluted acetic acid.
- (4) diluted nitric acid.

104. Which of the following material takes long time for bio-degradable?

- (1) Wool
- (2) Cotton
- (3) Silk
- (4) Nylon

105. The element which contains more percentage in human body is

- (1) Carbon
- (2) Oxygen
- (3) Hydrogen
- (4) Nitrogen

106. Petroleum is separated into various components by a separation technique known as

- (1) distillation
- (2) sublimation
- (3) evaporation
- (4) fractional distillation

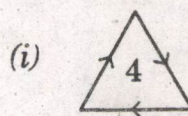
107. Which of the following is called a 'fake fur'?

- (1) Acrylic
- (2) Nylon
- (3) Rayon
- (4) Cotton

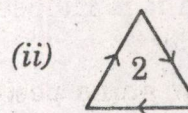
108. Which of the following statement is not correct for fine coating in electroplating?

- (1) The object to be electroplated should be greasy matter.
- (2) The surface of the object should be rough.
- (3) The concentration of the electrolyte should be adjustable.
- (4) Current must be the same through out.

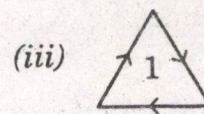
109. Match the correct codes of Resin.



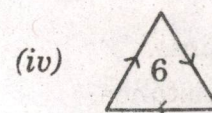
(a) PET



(b) PS



(c) HDPE



(d) LDPE

(1) d, a, c, b

(2) d, c, a, b

(3) a, b, c, d

(4) d, a, b, c

110. The lowest temperature at which a substance catch fire is called as ...

- (1) Room temperature.
- (2) Normal temperature.
- (3) Maximum temperature.
- (4) Ignition temperature.

111. The unit of 'Calorific values' is

- (1) J/g
- (2) J/kg
- (3) KJ/g
- (4) KJ/kg

112. Match the following of metal properties.

- | | |
|-------------------|---------------------------|
| (i) Ductility | (a) making into sheets. |
| (ii) Malleability | (b) making ringing sound. |
| (iii) Sonarity | (c) making into wires. |
| (iv) Conductivity | (d) transmission of heat. |

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

113. Which of the following is used for preparation of bleaching powder?

- (1) Aluminium hydroxide
- (2) Calcium hydroxide
- (3) Sodium hydroxide
- (4) Ammonium hydroxide

BIOLOGY (Ques. 114 to 125)

114. Rectangular shaped cells are observed in

- (1) Nerve cell
- (2) Onion peel cell
- (3) Cheek cell
- (4) Blood cells

115. Identify the incorrect pair.

- (1) Robert Brown — Nucleus
- (2) Alexender Flemming —
Penicillin
- (3) Y.Subbarao — Tetracycline
- (4) Edward Jenner —
Malaria drug.

116. Identify the organism belonging to algae.

- (1) Cyclops
- (2) Spirulina
- (3) Rhizopus
- (4) Daphnia

117. Non communicable disease is

- (1) Smallpox
- (2) Swine Flu
- (3) Cancer
- (4) Tuberculosis

118. The male reproductive part of the flower is

- (1) Stamens
- (2) Pistil
- (3) Calyx
- (4) Corolla

119. Viviparous animal is

- (1) Lizard
- (2) Butterfly
- (3) Dog
- (4) Frog

120. 'Red data book' is related to

- (1) Information on existing species.
- (2) Information on endangered species.
- (3) Information on endemic species.
- (4) Information on fossils.

121. Primary consumers in Food chain are

- (1) Carnivores
- (2) Detritivores
- (3) Herbivores
- (4) Omnivores

122. The method of rearing honeybee is

- (1) Aquaculture
- (2) Apiculture
- (3) Sericulture
- (4) Silviculture

123. Identify the disease which is not sexually transmitted.

- (1) AIDS
- (2) Syphilis
- (3) Gonorrhea
- (4) Tuberculosis

124. The hormone which controls the emotions in our body.

- (1) Adrenaline
- (2) Testosterone
- (3) Estrogen
- (4) Progesterone

125. The locomotory organ in amoeba is

- (1) Cilia
- (2) Flagella
- (3) Pseudopodia
- (4) Contractile vacuoles

MATHEMATICS (Ques. 126 to 145)

126. The value of $\frac{2^{2021} + 2^{2019}}{2^{2020} - 2^{2018}}$ is

- (1) 2020
- (2) $\frac{10}{3}$
- (3) $2^{1000} + 1$
- (4) 10

127. The cost of $7\frac{2}{3}$ meters of rope is

₹ $12\frac{3}{4}$, then the cost of rope of 1 meter is

- (1) ₹ $2\frac{30}{47}$
- (2) ₹ $3\frac{18}{25}$
- (3) ₹ $1\frac{61}{92}$
- (4) ₹ $6\frac{16}{90}$

128. The sides of a triangle are in the

ratio of $\frac{1}{2} : \frac{1}{3} : \frac{1}{4}$. If its perimeter is 104 cm, then the length of the longest side (in cm) is

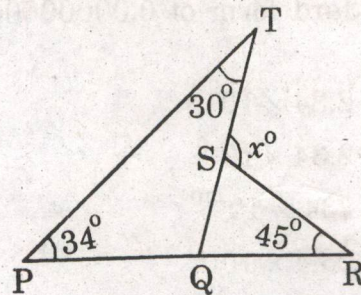
- (1) 48
- (2) 32
- (3) 26
- (4) 52

129. The capacity of a tank of dimensions $8\text{m} \times 6\text{m} \times 2.5\text{m}$ is

- (1) 120 liters
- (2) 1200 liters
- (3) 12000 liters
- (4) 120000 liters

130. In the given figure, $\angle PTQ = 30^\circ$,

$\angle TPQ = 34^\circ$ and $\angle SRQ = 45^\circ$, then the value of x is



- (1) 64°
- (2) 75°
- (3) 109°
- (4) 79°

131. The smallest natural number to be added to 803642 to get a number which is completely divisible by 9 is

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

132. If $\frac{x}{3} - \frac{2x}{5} = \frac{2x}{3} - \frac{11}{30}$, then the value of 'x' is

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

(2) $-\frac{4}{3}$

(3) $\frac{3}{4}$

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

133. Standard form of 0.00000000234 is

(1) 2.34×10^{-8}

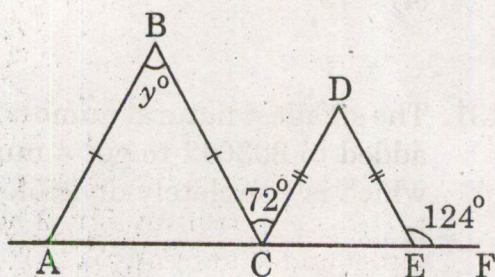
(2) 2.34×10^{-9}

(3) 234×10^{-10}

(4) 23.4×10^{-11}

134. In $\triangle ABC$, $AB = BC$ and in $\triangle CDE$, $CD = DE$. If $\angle BCD = 72^\circ$,

$\angle DEF = 124^\circ$ and $ACEF$ is a straight line, then the value of 'y' is



(1) 52°

(2) 58°

(3) 68°

(4) 76°

135. The product of $(x^2 - 7y^2)$ and $(x^2 + 4y^2)$ is

(1) $x^4 + 3x^2y^2 - 28y^4$

(2) $x^4 - 3x^2y^2 - 28y^4$

(3) $x^4 + 3x^2y^2 + 28y^4$

(4) $x^4 - 3x^2y^2 + 28y^4$

136. A vertical stick 2 meter tall casts a shadow 5 meter long. At the same time, if a tree casts a shadow 55 meter long, then the height of the tree (in meters) is

(1) 137.5

(2) 27.5

(3) 22

(4) 10

137. If a number exceeds 20% of itself by 40, then the number is

(1) 50

(2) 60

(3) 80

(4) 320

138. The value of

$$\sqrt{41 + \sqrt{54 + \sqrt{88 + \sqrt{128 + \sqrt{256}}}}}$$

is

(1) 7

(2) 6

(3) 8

(4) 10

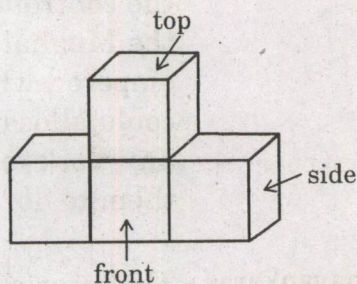
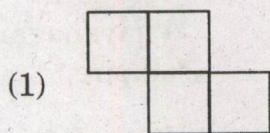
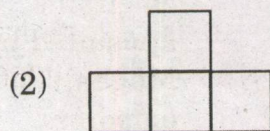
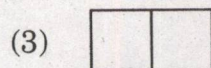
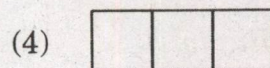
139. If two adjacent angles of a parallelogram are $2x^\circ + 25^\circ$ and $3x^\circ - 5^\circ$, then the value of 'x' is

- (1) 28
- (2) 32
- (3) 36
- (4) 42

140. If $5^{x-1} + 5^x + 5^{x+1} = 775$, then the value of 'x' is

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

141. Top view of the figure made up of Cubes joined together is

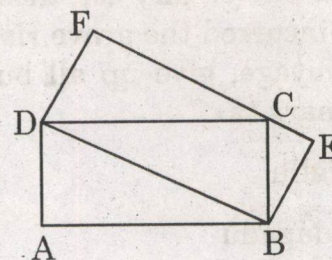


142. The value of

$$(1^3 + 2^3 + 3^3 + 4^3)^{\frac{3}{2}} \text{ is } \dots\dots$$

- (1) $\frac{1}{100}$
- (2) 100
- (3) $\frac{1}{1000}$
- (4) 1000

143. ABCD and DBEF are rectangles drawn as shown in the figure. If $AB = 4\text{cm}$ and $AD = 3\text{cm}$, then area of rectangle DBEF (in square cm) is



- (1) 10
- (2) 12
- (3) 14
- (4) 15

144. Marked price of an article is ₹ 675. If it is sold at a discount of 20%, then it's selling price (in rupees) is

- (1) 540
- (2) 525
- (3) 510
- (4) 500

145. The compound interest on ₹ 8000 at 5% per annum for 2 years compounded annually is

- (1) ₹ 8280
- (2) ₹ 400
- (3) ₹ 8420
- (4) ₹ 820

HISTORY

(Ques. 146 to 155)

146. The ritual which lead to the thought — “rebirth” of the sacrificer as a Kshatriya, even if he was not a Kshatriya by birth.

- (1) Brahmadeya
- (2) Shalabhoga
- (3) Hiranya garbha
- (4) Vellanvagai

147. This AbhayaShasana stated “we for the sake of our reputation and punya and out of pity for those who have incurred the grave risk of a sea voyage, give up all but the customary tax.”

- (1) Orugallu
- (2) Nagulapadu
- (3) Pillalamarri
- (4) Motupalli

148. The following Golconda ruler patronized Telugu literature, supported Brahmins and temples and engaged in large-scale irrigation works like the Kakatiya kings.

- (1) Sultan Ibrahim Qutub Shah
- (2) Quli Qutub Shah
- (3) Abul Hasan Tanishah
- (4) Abdullah Qutub Shah

149. The correct pair of the following is

(i) Nayankaras -

Rudramadevi and Prataparudra encouraged several skilled warriors who were not from any powerful family but were very loyal to the queen and the king.

(ii) Mansabdars -

They worked directly under the control of the Mughal emperor, who could allocate any work for them to do.

(iii) Amaranayankaras - ‘Captains of the Troops’ in Vijayanagara empire.

(iv) Zamindars -

Powerful chieftains appointed by Mughal emperors.

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

150. Who fought against the British in Hyderabad State during the revolt of 1857 ?

- (1) Turrebaz Khan
- (2) Peshwa Nanasaheb
- (3) Bahadur Shah Zafar
- (4) Muzaffar Jang

151. Which of the following statement is not TRUE ?

- (1) Arya Samaj served as a training ground for workers in constructive activities and helped to rouse public opinion and build socio-religious awareness.
- (2) Sri Krishnadevaraya Andhra Bhasha Nilayam was established in Hyderabad by Burugula Ramakrishna Rao.
- (3) The Andhra Mahasabha initial objectives are creating of more educational facilities.
- (4) Suravaram Pratapa Reddy was editor of the Golconda Patrika.

152. Find out the correct statement about extremists.

- (1) They carried their agitation through newspapers, public lectures.
- (2) They adopted a policy of pray, petition and protest.
- (3) They boycotted of all government institutions like schools, colleges, courts, etc.
- (4) They reached the people by conducting meetings and their tours.

153. Which of the following is paired incorrectly ?

- (1) Doddi Komaraiah — Telangana Armed Struggle.
- (2) Kommaraju Lakshmana Rao — Hyderabad State Congress.
- (3) Nalla Narasimhulu — Peoples Courts.
- (4) Mulla Abdul Quyyum — Anjumen-e-maref.

154. "British Rule in India must end immediately", this resolution was passed in this Congress Working Committee Meeting.

- (1) 8th August 1942 at Bombay.
- (2) 21st March 1944 at Singapore.
- (3) 9th August 1942 at Pune.
- (4) 18th March 1944 at Kohima.

155. In 1941, Hyderabad State Literacy rate.

- (1) 4.3%
- (2) 12.2%
- (3) 23%
- (4) 9.3%

GEOGRAPHY (Ques. 156 to 165)

156. The following statement is correct about contour lines.

- (1) It joins places with equal temperatures.
- (2) It joins places with equal heights.
- (3) It joins places with equal rainfall.
- (4) It joins places with equal pressure.

157. Different forms of condensation of water vapour is known as

- (1) Erosion
- (2) Evaporation
- (3) Precipitation
- (4) Weathering

158. These kings built large number of lakes in Telangana.

- (1) Nizams
- (2) Vijayanagara kings
- (3) Cholas
- (4) Kakatiyas

159. In the Oceans, water moves from one part to another in big streams are called as

- (1) currents
- (2) waves
- (3) tides
- (4) trenches

160. "If the earth is round then it should be possible to reach India from the west too. If we were to travel westward across the Atlantic Ocean, we would reach China and India sooner or later", who's thought it is

- (1) Christopher Columbus
- (2) Vasco-da-Gama
- (3) Captain Cook
- (4) Henry

161. Sadiq Isfahani prepared an Atlas in this century.

- (1) 15th Century
- (2) 17th Century
- (3) 18th Century
- (4) 16th Century

162. The angle of incidence increases in the north during these months.

- (1) August, September
- (2) January, February
- (3) November, December
- (4) May, June

163. It is NOT a factor effecting seasons.

- (1) The spherical shape of the Earth and the curvature of its surface.
- (2) Daily rotation of the Earth on its own axis.
- (3) The tilt of the axis revolution compared to the plane on which the Earth moves.
- (4) The Earth's movement around the Sun once in a month.

164. Eskimos cross snow and ice on sledges pulled by dogs, and they travel on water in open boats are called as

- (1) Inuit
- (2) Aleut
- (3) Harpoon
- (4) Umiaks

165. Jalagam Vengal Rao open cast mine is located in which district ?

- (1) Bhadradi Kothagudem
- (2) Khammam
- (3) Peddapally
- (4) Mancherial

POLITICAL SCIENCE (Ques. 166 to 175)

- 166.** The term of Legislative Assembly can be extended by
- (1) Governor
 - (2) Chief Minister
 - (3) Parliament
 - (4) Speaker
- 167.** The social reformer who was honoured with the title Khusru-E-Deccan by the Nizam was
- (1) B.S. Venkata Rao
 - (2) Om Prakash Valmiki
 - (3) Dr. B.R. Ambedkar
 - (4) Palayam Pillai
- 168.** Who's job is to ensure the state government is functioning according to the constitution of India ?
- (1) Chief Minister
 - (2) Governor
 - (3) Speaker
 - (4) Chief Justice of High Court
- 169.** No. of constituencies reserved for Schedule Tribes in Telangana State Legislative Assembly are
- (1) 29
 - (2) 34
 - (3) 4
 - (4) 12
- 170.** Who proposed the Objective Resolutions which became the guiding principles for drafting the constitution ?
- (1) Mahatma Gandhi
 - (2) Sardar Vallabhbhai Patel
 - (3) Dr. John Mathai
 - (4) Jawaharlal Nehru
- 171.** The term of members of Rajya Sabha is
- (1) 3 years
 - (2) 4 years
 - (3) 5 years
 - (4) 6 years
- 172.** Making education policy is the duty of
- (1) State Government.
 - (2) Central Government.
 - (3) State, Central Government.
 - (4) Voluntary organisations.
- 173.** 86th Amendment Act, which recognised Education as a Fundamental Right, made in the year.
- (1) 2002
 - (2) 2006
 - (3) 2009
 - (4) 2013
- 174.** is one of the art form of Telangana that came out of the daily labour of the peasants.
- (1) Yakshaganam
 - (2) Kuchipudi
 - (3) Kuravanji
 - (4) Chuttukamudu
- 175.** Find out the wrongly matched pairs related to persons and organisations.
- (1) Jyotiba Phule — Satya Shodak Samaj.
 - (2) Jagan Mithra Mandali — Bhagya Reddy Varma.
 - (3) Sarada Sadan — Pandita Ramabai Saraswathi.
 - (4) None of the above.

ECONOMICS

(Ques. 176 to 180)

176. These small-town weavers produce unique sarees called "Ikkat".

- | | |
|---------------|-----------------|
| (1) Siricilla | (2) Andugula |
| (3) Nirmal | (4) Pochampally |

177. His locomotive pulled heavy loads along a 64 kilometers track from Liverpool to Manchester at a speed of 46 kilometers per hour.

- | | |
|-----------------------|------------------------|
| (1) George Stephenson | (2) James Watt |
| (3) Boulton | (4) John Loudon McAdam |

178. Consider the following pairs :

- | | |
|--|--|
| (A) NEFT
(National Electronic Funds Transfer) | (1) It helps people to transfer money from the bank through a mobile handset, internet banking or through ATMs, instantly. |
| (B) RTGS (Real Time Gross Settlement) | (2) It is a mobile banking service based on small value transactions. It can be used in basic feature phones. |
| (C) UPI (Unified Payment Interface) | (3) This service used for high value transactions. |
| (D) IMPS
(Immediate Payment Service) | (4) To transfer money through this. There is no need to enter receiver's name, his account number, bank name and its IFS Code. |
| | (5) This can be used by an individual or an organization to transfer money from their account to another account. |

Which of the pairs given above is/are correctly matched ?

- | | |
|------------------------|------------------------|
| (1) A-2, B-5, C-1, D-4 | (2) A-5, B-3, C-4, D-1 |
| (3) A-2, B-3, C-1, D-5 | (4) A-3, B-5, C-1, D-4 |

179. Contract labourers of Paper Mill are getting only this type of facility.

- | | |
|-----------------------|-------------------|
| (1) medical insurance | (2) paid holidays |
| (3) bonus | (4) lower salary |

180. Trading activities comes under this economic activity.

- | | |
|-----------------|----------------|
| (1) Agriculture | (2) Industrial |
| (3) Services | (4) Forestry |

(Space For Rough Work)