

**Part I**

Mental Ability Test (Q. Nos. 1 to 50)

Max. Marks – 50

Direction: In question no. 1 to 7 each question has four terms. Three terms are alike in some way. One term is different from three others. Find out the correct terms which is different from three others and write its alternative number on your answer sheet against the proper question number-

1.

- a) B-8
- b) J-1000
- c) G-343
- d) K-1333

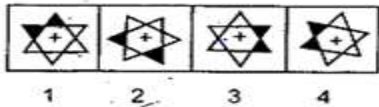
2.

- a) Steel
- b) Brass
- c) Mercury
- d) Copper

3.

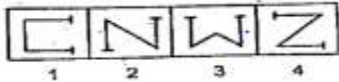
- a) DGJM
- b) KOSW
- c) BEHK
- d) ILOR

4.



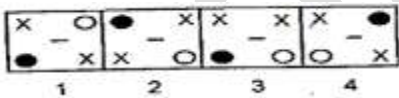
- a) 1
- b) 2
- c) 3
- d) 4

5.



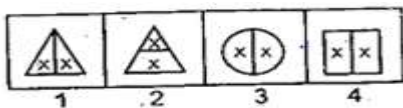
- a) 1
- b) 2
- c) 3
- d) 4

6.



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

7.



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

Direction: In question 8 to 14 there are four terms in each question. the terms right to the symbol :: have same relationship as the two terms of the left of symbol :: out of the four terms one terms is missing which is shown by (?) and which is one of the four alternatives given below. Find out the correct alternative and write its number against the corresponding question on your answer sheet-

8. Parliament: Great Britain :: Congress : ?

- a) Canada
- b) United States of America
- c) Japan
- d) South Korea

9. 6 : 222 :: 8 : ?

- a) 520
- b) 596
- c) 496
- d) 529

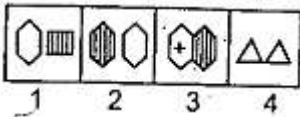
10. CEJP : FGMR :: FKRU : ?

- a) HNVX
- b) JNXO
- c) JMVY
- d) IMUW

11. Question figure:



Answer figures:

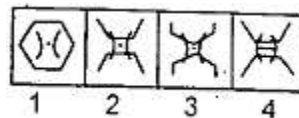


- a) 1
- b) 2
- c) 3
- d) 4

12. Question figure:

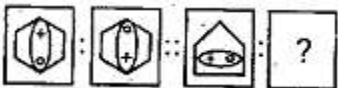


Answer Figures:

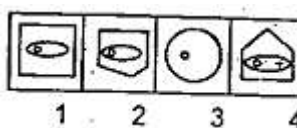


- a) 1
- b) 2
- c) 3
- d) 4

13. Question figure:

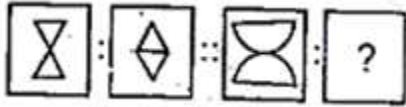


Answer Figures:

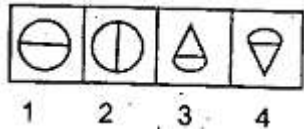


- a) 1
- b) 2
- c) 3
- d) 4

14. Question figure:



Answer Figures:



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

Direction: Question 15-17 are based on number or letter series. One, two term is missing in each series and indicated by question mark (?) find out the missing terms out of the four alternatives given below and write its alternative number against the correct question number on your answer sheet –

15. 2, 10, 30, 68, 130, ?

- a) 240
- b) 196
- c) 222
- d) 226

16. 16, 6, 2, 12, 6, 20, 12, 30, 20, ?, ?

- a) 49, 36
- b) 42, 30
- c) 36, 42
- d) 48, 54

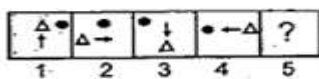
17. 5, 34, 10, 51, 17, 68, 26, ?, ?

- a) 102, 39
- b) 76, 35
- c) 85, 37
- d) 35, 86

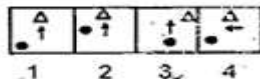
Direction: In Question 18-21 problem figures are given at the left hand side consisting four figures in a definite series and the place for fifth figure is vacant which has been shown by question mark (?). Four answer figures are given against each figure and write its alternatives number against the proper question number on your answer sheet –

18.

Problem figures:



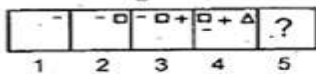
Answer figures:



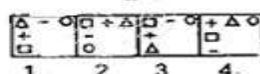
- a) 1
- b) 2
- c) 3
- d) 4

19.

Problem figures:



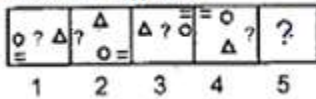
Answer figures:



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

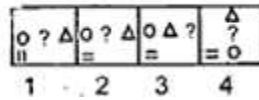
20.

Problem figures:



- a) 1
- c) 3

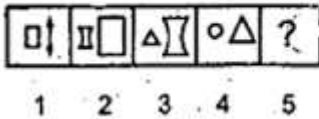
Answer figures:



- b) 2
- d) 4

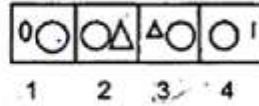
21.

Problem figures:



- a) 1
- c) 3

Answer figures:



- b) 2
- d) 4

Direction: In question 22 to 28 the letters in column – I are coded in the form of numbers. Which are written in column – II, but the order of numbers is different. Study the code of letters and find out the correct answer for each question from given four alternative and write its numbers. (Alternative numbers) against the proper questions number on your answer sheet –

Column – I	Column – II
EJP	325
REL	143
SOV	769
PRO	645
LOS	176

22. What will be code of OPR -

- a) 419
- c) 654
- b) 367
- d) 536

23. What will be code of SLV -

- a) 719
- c) 134
- b) 576
- d) 742

24. What will be code of E JL -

- a) 763
- c) 179
- b) 541
- d) 321

25. What will be code of RES –

- a) 176
- c) 941
- b) 437
- d) 275



35. 3 || 5 || 7 || 8

a) || || || ||

c) = × -

b) = - ×

d) × - =

36. 24 || 6 || 2 || 6

a) || || || ||

c) + = ÷

b) ÷ + =

d) + ÷ =

37. 6 || 4 || 5 || 29

a) || || || ||

c) × + =

b) = + ×

d) = × +

38. 17 + 7 - 3 = 13

a) - + =

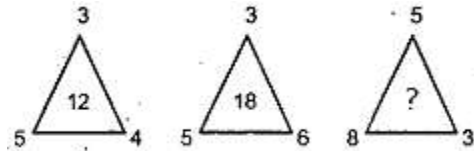
c) - = +

b) + = -

d) - = +

Direction: In Question 39-41 numbers are placed in figure on the basis of some rules. One place is vacant which is indicated as (?). Find out the correct alternative for the vacant place and write its number against the proper question number on your answer sheet-

39.



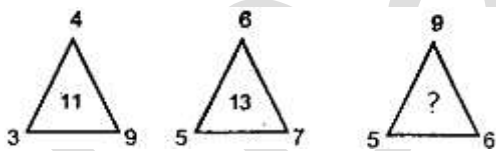
a) 27

c) 29

b) 21

d) 24

40.



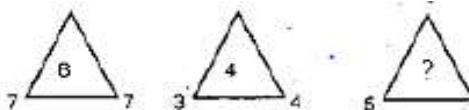
a) 21

c) 15

b) 26

d) 19

41.



a) 17

c) 15

b) 10

d) 18







54. Philip fell into the water because
- a) The lake was too wide
  - b) He was too heavy for the ice
  - c) All the air was sucked out of his lungs
  - d) He made a hole in the ice with the practice turns
55. 'blacked out' means-
- a) It was dark under the water
  - b) He put on dark clothes
  - c) He got out of the water backwards
  - d) He didn't know what was happening to him

(Question 56-60) Read the following passage and answer the questions given below it-

Every reader of this passage must spend the whole of his waking life looking at things, Looking, like breathing, is natural; we do it without noticing it. Looking is passive-but seeing is active. Once you start. Seeing things you really begin to wake up. People who see things which others have only looked at, and seeing, draw conclusions from what they see, can add to man's knowledge and help progress.

Someone recently discovered a place where metal had been worked continuously longer than anywhere else in England. He 'saw' a wall in the Forest of Dean. Thousands of people must have looked at it without really seeing it, but this man noticed that among the usual stones of that place were bits and pieces of a different color, they also felt different to the hand. A closer sight showed that those pieces had been left behind in the fires of ancient peoples who had smelted rocks to get metals. Looking around, he found more and more information, until the history of what men had done at that place over tens of centuries was known.

56. 'his waking life' means
- a) The time when he is waking up
  - b) All the time he is awake
  - c) All the time he is alive
  - d) All the time he is breathing
57. For this writer 'seeing' means
- a) Noticing things which need explaining
  - b) Doing something natural
  - c) Looking at things
  - d) Doing something without noticing it
58. The man found a place where
- a) Men are starting to work metal
  - b) Men built wall of metal
  - c) Men smelted metal for tens of centuries
  - d) Men first learned to make fire with stones
59. The man who 'saw' the wall got more and more information
- a) From thousands of people who had looked at it
  - b) From a history book
  - c) From the usual stones of that place
  - d) From the unusual stones of that place

60. The man's discovery was useful because it gave us more knowledge about
- a) Colors
  - b) Stones
  - c) Walls
  - d) The forest of Dean

(Question 61-62) In the questions given below, you are provided with the first part of a sentence. The remaining sentence is broken into four parts labeled (P), (Q), (R) and (S). You are required to arrange these parts so as to form a complete meaningful sentence and then choose the correct combination.

61. While arranging shelves –
- P – Where I work
  - Q – I came across a book called
  - R – at the library
  - S – Finding God in Mysterious places
- a) QRPS
  - b) PQRS
  - c) RPQS
  - d) RQSP

62. We cannot perform –
- P – some principles of science
  - Q – I came across a book called
  - R – at the library
  - S – Finding God in Mysterious places

- a) SRPQ
- b) QRPS
- c) RQSP
- d) PQRS

(Question 63-64) The following five sentences come from a paragraph. The first and the last sentence are given. Choose the order in which the three sentences (PQR) should appear to complete the paragraph.

63. S1 A rainbow is red on one edge, violet on the other. S2 ..... S3 ..... S4 ..... S5 Now, although we are unable to see ultra-violet light, bees can do so, for them ultra-violet is a color.

- P – This colour beyond the violet, invisible to us, is called ultra-violet.
- Q – Outside the violet of the rainbow there is another colour which we cannot see at all.
- R – Although it is invisible, we know that ultra-violet is there because it affects a photographic plate.

Choose from the options given below

- a) PRQ
- b) RPQ
- c) RQP
- d) QPR

64. S1 Nigel had been born an only child  
S2 ..... S3 ..... S4 .....

S5 Nature had made her the sort of person to captain industry or an army, instead, she was Nigel's mother.

- P – While she lived, all decisions about his daily life, his friendship, his fortune, had been taken by that overbearing woman.
- Q – His father had died when he was small, and when his mother, although still not old, died too, he was like a man lost, a car without a steering-wheel, a prisoner set free after a lifetime in prison.
- R – In all things her word had been law

Choose from the options given below

- a) RPQ                      b) PRQ  
c) QPR                      d) PQR

(Question 65-69) Choose the word which best fills the blank from the four options given

65. I was out on a morning walk on a quiet, ..... path which ran through the wood.

- a) Separated                      b) Isolated                      c) Secluded                      d) Unusual

66. Everyone was ..... by a device small enough to fit on a desk –

- a) Interested                      b) Fascinated                      c) Satisfied                      d) Scrutinized

67. The previous owner of our house ..... a burglar alarm system in the house but we never used it –

- a) Installed                      b) Established                      c) Executed                      d) Implemented

68. Rajeev was discussing his ..... Flight with his friends when I reached his home –

- a) Linking                      b) Connecting                      c) Joining                      d) Arriving

69. What if he ..... everything and returned the clock which he was still carrying in his bag –

- a) Delegated                      b) Confiscated                      c) Delivered                      d) Confessed

(Question 70-75) Select the meaning of the given phrases / idioms

70. A bolt from the blue –

- a) A criminal act                      b) A shocking event  
c) A complete surprise                      d) A dangerous deal

71. A hard nut to crack –

- a) A bad, tasteless nut                      b) A difficult act  
c) A person hard to tackle                      d) A person difficult to please

72. A man of letters –

- a) A scholar                      b) A man who knows ABC  
c) A literate man                      d) An intelligent person

73. From hand to mouth –

- a) Leading a simple life                      b) Barely making two ends meet  
c) Working hard for one's living                      d) Hardly doing any work

74. In a nutshell –

- a) In a lavish lifestyle                      b) In a simple way  
c) In detail                      d) Briefly

75. To get rid of –

- |                           |                        |
|---------------------------|------------------------|
| a) To get freedom from    | b) To get involved in  |
| c) To get into difficulty | d) To get comfort from |

(Question 76-83) In the following passage there are some numbered blanks. Fill in the blanks by selecting the most appropriate word for each blank from the options given below-

Elizabeth was waiting 76 a bus. She was going to buy a German dictionary and a German grammar

She wanted to learn the language before 78 holiday in Australia. 79 it began to rain. She had neither umbrella not raincoat, and she was soon wet. A man in a car 80 and gave her a 81 into the town. The sun came out again 82. She was in the car, and, when she got out, she stood in the 83 sun till she was dry.

76.

- |        |         |
|--------|---------|
| a) of  | b) from |
| c) for | d) in   |

77.

- |             |             |
|-------------|-------------|
| a) book     | b) dairy    |
| c) register | d) notebook |

78.

- |          |        |
|----------|--------|
| a) their | b) her |
| c) his   | d) its |

79.

- |                 |                 |
|-----------------|-----------------|
| a) incidentally | b) accidentally |
| c) consequently | d) suddenly     |

80.

- |              |             |
|--------------|-------------|
| a) stopped   | b) started  |
| c) supported | d) supplied |

81.

- |                 |           |
|-----------------|-----------|
| a) a life       | b) a book |
| c) a dictionary | d) a car  |

82.

- |          |          |
|----------|----------|
| a) when  | b) while |
| c) where | d) what  |

83.

- |         |           |
|---------|-----------|
| a) hot  | b) bright |
| c) warm | d) dull   |

(Question 84-87) Select the most appropriate option to fill in the blanks from the given alternatives –

84. granny ..... her book every-where

- a) looked out
- b) looked for
- c) looked up
- d) looked into

85. the wind blew out the .....

- a) lamp
- b) light
- c) bulb
- d) candle

86. I'll think ..... your idea carefully before I take a final decision

- a) over
- b) about
- c) on
- d) upon

87. The travelers were delayed because the bus had broken .....

- a) out
- b) down
- c) away
- d) up

(Question 88-90) Select the word which means the opposite of the given word

88. Abundance –

- a) much
- b) shortage
- c) enough
- d) less

89. Ferocious -

- a) meek
- b) wild
- c) brave
- d) coward

90. Compulsory -

- a) unwilling
- b) mandatory
- c) necessary
- d) voluntary

**Part III**

Marks - 90

Aptitude Test (Q. Nos. 91 to 180) Max.

Subjects	Questions Sl. No.	Marks Allotted:
1. Physics	111 to 122 Questions	12 Marks
2. Chemistry	123 to 133 Questions	11 Marks
3. Biology	134 to 145 Questions	12 Marks
4. Mathematics	91 to 110 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

SHADE the circle having the correct alternative in the OMR Sheet provided, from among the ones given against the corresponding question in the Question Paper Booklet. For shading the circles, use HB Pencil.

**Physics**

91. A body of mass 20 kg. falls through a distance of 50 cm. Then the loss in potential energy is-

- a) 98 Joule
- b) 392 Joule
- c) 980 Joule
- d) 5000 Joule

92. Calorimeters are generally made of-

- a) Copper
- b) Brass
- c) Aluminium
- d) Zinc

93. 1 Calorie is able to raise the temp. of 1 gm. of copper through approximately

- a) 1||C
- b) 5||C
- c) 10||C
- d) 20||C

94. A particle in a medium completes 20 vibrations in 2.5 seconds. The frequency of wave is

- a) 20 Hz
- b) 200 Hz
- c) 50 Hz
- d) 8 Hz

95. The value of 1 Kilowatt power in terms of horse power will be

- a) 1.3 H.P
- b) 746 H.P
- c) 786 H.P
- d) 4.36 H.P

96. A myopic eye can be corrected by using a

- a) Convex lens
- b) Concave lens
- c) Plane mirror
- d) Cylindrical lens

97. In a solution of  $CuSO_4$  a piece of ZN is dropped. The solution becomes colourless. This reaction will be

- a) Substitution reaction
- b) Decomposition reaction
- c) Addition reaction
- d) Dissociation reaction

98. Decibel is

- a) A sound apparatus
- b) A sound tone
- c) The unit of intensity of sound
- d) The wave length of noise

99. The renewable source of energy is

- a) Coal
- b) Uranium
- c) Natural gas
- d) Geothermal power

100. The first artificial satellite was

- a) Sputnik – 1                      b) Explorer – 1  
c) Aryabhata                        d) Luna – 3

101. Titan is the largest moon or satellite of

- a) Mars                                b) Venus  
c) Jupiter                            d) Saturn

102. A concave mirror of focal length is 10 cm produces an image five times large and real. The distance of object from the mirror will be -

- a) 10 cm                              b) 12 cm  
c) 16 cm                              d) 20 cm

### Chemistry

103. International unit of atomic weight is

- a) Carbon – 12                      b) Oxygen – 16  
c) Hydrogen – 1                    d) Nitrogen – 14

104. Which of the following isotopes of Uranium is unstable?

- a) U-234                              b) U-235  
c) U-238                              d) All of the above

105. An element have atomic number 19 and mass number 39. The number of neutron in its nucleus is

- a) 20                                  b) 58  
c) 19                                  d) 39

106. Mass percentage of nitrogen in the compound  $N_2O_3$  is

- a) 36.84                              b) 46.70  
c) 82.40                              d) 63.60

107. A metal M has its Chloride formula  $MC_3$  and equivalent weight of metal is 9. Atomic weight of element is

- a) 9                                    b) 18  
c) 27                                  d) 3

108. Atomic weight of an element is 30, its equivalent wt. is 10. The valency of element will be

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

109. Specific heat of any element is 0.1. The nearest atomic wt. of that element will be

- a) 32                                  b) 64  
c) 62                                  d) 48

110. The number of molecules in one mole of gas is

- a)  $6.023 \times 10^{23}$                       b)  $6.023 \times 10^{22}$   
c)  $6.023 \times 10^{21}$                       d)  $6.023 \times 10^{20}$

111. In the given below  $\text{MnO}_2$  is catalyst as
- a) Positive Catalyst      b) Negative Catalyst  
c) Auto Catalyst      d) Induced Catalyst
112. How much  $\text{MgO}$  is obtained on heating 5 gm of  $\text{MgCO}_3$  Magnesium Carbonate
- a) 2.4 gm      b) 2.38 gm  
c) 2.8 gm      d) 3.28 gm
113. Valency of Cr in  $\text{CrPO}_4$  is
- a) 4      b) 3  
c) 2      d) 1

**Biology**

114. Quinine is obtained from
- a) Bark      b) Fruit  
c) Leaves      d) Roots
115. Nocturnal bird is
- a) Pigeon      b) Sparrow  
c) Owl      d) Parrot
116. Body temperature of human body is
- a)  $42 \text{ }^\circ\text{C}$       b)  $40 \text{ }^\circ\text{C}$   
c)  $34 \text{ }^\circ\text{C}$       d)  $37 \text{ }^\circ\text{C}$
117. Budding is found in
- a) Mango      b) Yeast  
c) Papaya      d) Banana
118. The unit of classification is
- a) Class      b) Order  
c) Species      d) Genus
119. Which of the following is a micronutrient element
- a) Mg      b) K  
c) Ca      d) Zn
120. Penicillin obtained from
- a) Cycus      b) Fungi  
c) Fern      d) Algae
121. Cotton fibre is obtained from
- a) Seeds      b) Phloem  
c) Leaves      d) Roots



122. Vessels are absent in  
a) Pinus wood                      b) Shishum wood  
c) Teak wood                      d) Sal wood
123. A substance produced in liver which prevents the freezing of blood is called  
a) Ptylin                              b) Heparin  
c) Trypsin                            d) Insulin
124. Which of the following contains phytochrome  
a) Algae                              b) Fungi  
c) Yeast                              d) Angiosperm
125. Auxin hormone was discovered by  
a) Vent                                b) Moore  
c) Mehta                              d) Mendal

### History

126. The first governor of the Portuguese in India was  
a) Albuquerque                    b) De-Almeida  
c) Vasco-da-Gama                  d) Bortholomew Diaz
127. When was the battle of Plassi Fought?  
a) 1526 AD                          b) 1556 AD  
c) 1757 AD                          d) 1761 AD
128. Rani Laxmibai is associated with city  
a) Kanpur                            b) Awadh  
c) Jhansi                              d) Delhi
129. The founder of 'Brahm Samaj' was  
a) Rajaram Mohan Rai              b) Swami Vivekanand  
c) Dayanand Saraswati              d) Ramkrishna Paramhans
130. Among the following who is called 'Light of Asia'  
a) Mahavir                          b) Buddha  
c) Akbar                              d) Ashoka
131. The book written by Gandhiji is  
a) Common will                      b) India Wins Freedom  
c) Discovery of India                d) My Experiment with Truth
132. Kabir was disciple of  
a) Ramanand                        b) Ramanuja  
c) Tukaram                         d) Chaitanya

133. The attainment of complete Independence was declared as the ultimate goal by Indian National Congress in -  
a) 1929 AD    b) 1939 AD  
c) 1940 AD    d) 1946 AD
134. Cabinet Mission comes to India in  
a) 1945 AD    b) 1946 AD  
c) 1947 AD    d) 1948 AD
135. Who coined the famous slogan 'Inquilab Zindabad'  
a) Ashfaq Ullah Khan            b) Chandra Shekhar Azad  
c) Bhagat Singh                 d) Abul Kalam Azam

**Geography**

136. The southern-most point of India is  
a) Kanya Kumari                 b) Indira Point  
c) Point Calimer                 d) Rameshwaram
137. Which one of the following states has the longest coast line  
a) Gujarat                         b) Maharashtra  
c) Kerala                          d) West Bengal
138. On which river is the Hirakud dam constructed  
a) Narmada                         b) Godavari  
c) Mahanadi                        d) Kaveri
139. 'The valley of Flower' lies in  
a) Jammu and Kashmir         b) Uttarakhand  
c) Himachal Pradesh         d) Kerala
140. The minimum rainfall place in India is  
a) Mathura                         b) Delhi  
c) Jaisalmer                        d) Leh
141. Laterite Soil is found in  
a) Uttar Pradesh                 b) Himachal Pradesh  
c) Kerala                          d) Punjab
142. Damodar is tributary of river  
a) Ganga                          b) Hugli  
c) Suvarnrekha                 d) Yamuna
143. 'Titan' is the largest moon or satellite  
a) Mars                             b) Venus  
c) Jupiter                         d) Saturn



153. Indian is a secular state is encunciated in
- a) Preamble of the Constitution  
 c) Directive Principal of state policy
- b) Fundamental Rights  
 d) Citizenship provisions
154. The Headquarter of UNO located at
- a) London  
 c) New Delhi
- b) Rome  
 d) New York
155. The first summit of SAARC was held at
- a) New Delhi  
 c) Dhaka
- b) Colombo  
 d) Islamabad
156. Economic planning is a subject of
- a) Union list  
 c) Concurrent list
- b) State list  
 d) Not specified in any list
157. 'Twenty Point Economic Programme' was fixed launched in the year
- a) 1969  
 c) 1977
- b) 1975  
 d) 1980
158. 'ADHAR' is a programme
- a) To provide identity to Indian residents  
 c) Education
- b) Infrastructure Development  
 d) Social Security
159. The time period of the 12<sup>th</sup> five year plan is
- a) 2001-07  
 c) 2010-15
- b) 2012-17  
 d) 2007-12
160. The standard of living in a country is represented by
- a) National income  
 c) Unemployment rate
- b) Poverty Ratio  
 d) Per Capita income
161. If  $\alpha$  and  $\beta$  are the zeroes of the polynomial  $f(x) = x^2 - 5x + k$  such that  $\alpha - \beta = 1$ , the value of K -
- a) 12  
 c) 4
- b) 6  
 d) 1
162. If  $(x+2)$  is a factor of the polynomial  $f(x) = x^2 + ax + 2b$  and  $a+b=1$ , then the value of a and b are-
- a)  $a=1, b=3$   
 c)  $a=-1, b=5$
- b)  $a=3, b=1$   
 d)  $a=5, b=-1$
163. If  $1^3 + 2^3 + \dots + 9^3 = 2025$  then  $(0.11)^3 + (0.22)^3 + \dots + (0.99)^3$  will be -
- a) 0.2695  
 c) 3.695
- b) 2.695  
 d) 0.3695

164.

If  $\tan \theta + \frac{1}{\tan \theta} = 2$  then the value of  $\tan^2 \theta + \frac{1}{\tan^2 \theta}$  will be.

- a) 4                                      b) 2                                      c) 1                                      d) 8

165. If  $\sec 2A = \operatorname{cosec} (A - 42^\circ)$  where  $2A$  is acute angle then value of  $A$  is

- a)  $44^\circ$                                       b)  $22^\circ$   
 c)  $21^\circ$                                       d)  $66^\circ$

166.

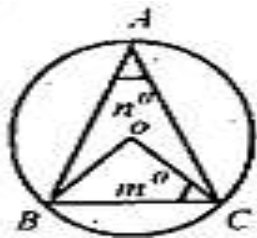
If  $\frac{\cos \theta - \sin \theta}{\cos \theta + \sin \theta} = \frac{1 - \sqrt{3}}{1 + \sqrt{3}}$  then  $\theta$  is

- a)  $30^\circ$                                       b)  $45^\circ$                                       c)  $60^\circ$                                       d)  $90^\circ$

167. If  $\cot \theta \operatorname{cosec} 2\theta$ , then the value of

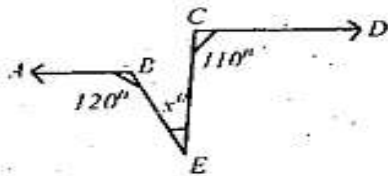
- a) 2    b) 4    c)  $\frac{1}{2}$     d)  $\frac{1}{4}$

168. In the following figure  $O$  is the center of circle and



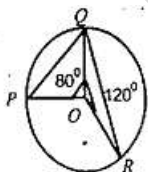
- a)  $m^\circ + n^\circ = 90^\circ$                                       b)  $m^\circ + n^\circ = 180^\circ$                                       c)  $m^\circ + n^\circ = 120^\circ$                                       d)  $m^\circ + n^\circ = 150^\circ$

169. In given figure  $AB \parallel CD$ ,  $\angle ABE = 120^\circ$ ,  $\angle DCE = 110^\circ$  and  $\angle BEC = x^\circ$  then  $x^\circ$  will be-



- a)  $60^\circ$     b)  $50^\circ$     c)  $40^\circ$     d)  $70^\circ$

170. In the following figure  $\angle PQR$  is-



- a)  $60^\circ$     b)  $80^\circ$     c)  $100^\circ$     d)  $120^\circ$

171. If  $x$  is the mean of the terms  $x_1, x_2, x_3, \dots, x_n$  and  $x = x_1 + x_2 + x_3 + \dots + x_n$  then the value of  $x - nx$  is

- a) 0    b) 1    c) n    d) x

