

**DO NOT BREAK THE SEAL OF THE BOOKLET UNTIL YOU ARE TOLD TO DO SO**

## QUESTION BOOKLET

**SERIES I**

**Subjects : General English, General Knowledge & Aptitude, Mathematics**

**BOOKLET SERIAL NO.**

**207953**

**Marks : 300**

**Time : 2½ hours**

Read the following instructions carefully before you  
begin to answer the questions.

### INSTRUCTIONS TO CANDIDATES

1. This booklet contains **150 questions** to be answered in a separate OMR Answer Sheet using Black Ball Pen in following three parts:  
**Part-A-General English : 50 questions, Part-B-General Knowledge & Aptitude : 50 questions, Part-C-Mathematics : 50 questions**
2. All Questions are compulsory.
3. You will be supplied the Answer sheet separately by the invigilator. You must complete the details of particulars asked for.
4. Answers must be shown by completely blackening the corresponding circles in the Answer Sheet against the relevant question number by Black Ball Pen. OMR Answer Sheet without marking series/ double series marking shall not be evaluated.

**Example :**

Supposing the following question is asked :-

**The Capital of Meghalaya is-**

- A. Guwahati
- B. Kohima
- C. Shillong
- D. Delhi

You will have four alternatives in the Answer Sheet for your response corresponding to each question of the Question Booklet as below :-

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

In the above illustration, if your chosen response is alternative C i.e. Shillong, then the same should be marked on the Answer Sheet by blackening the relevant circle with a Black Ball Point Pen only as below :-

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

### WHICH IS THE ONLY CORRECT METHOD OF ANSWERING

5. Answer the questions as quickly and as carefully as you can. Some questions may be difficult and others easy. Do not spend too much time on any one question.
6. There will NOT be any negative marking for wrong answers.
7. The Answer Sheet must be handed over to the invigilator before you leave the Examination Hall.
8. No rough work is to be done on the Answer Sheet. Space for rough work has been provided in the question booklet.

## **PART - A - GENERAL ENGLISH**

**Marks :100**

**Each question carries 2 marks :**

**Directions : Choose the correct option :**

1. India is committed \_\_\_\_ a policy of peaceful co-existence.

- a) Of                                      b) To
- c) With                                      d) For

2. I congratulated my classmates \_\_\_\_ passing the exam.

- a) For                                      b) With
- c) On                                      d) In

3. The boy, \_\_\_\_ father is a doctor, is my friend.

- a) Which                                      b) Who
- c) Whom                                      d) Whose

4. One must defend \_\_\_\_ against bullies.

- a) Herself                                      b) Themselves
- c) Oneself                                      d) Ourselves

5. If you study hard, you \_\_\_\_ a first class..

- a) Are getting                                      b) Will get
- c) Will be getting                                      d) Shall get

6. He \_\_\_\_ from malaria since the day before yesterday.

- a) Has been suffering
- b) Have been suffering
- c) Suffers
- d) is suffering

7. The thief and the eye-witness \_\_\_\_.

- a) Has escaped                                      b) Has been escaping
- c) Was escaping                                      d) Have escaped

8. The police held an inquiry \_\_\_\_ the murder.

- a) About                                      b) Into
- c) Over                                      d) Across

9. It is due to their lethargy that the plan fell \_\_\_\_.

- a) Through                                      b) Out
- c) Away                                      d) Apart

10. We often go fishing \_\_\_\_ the river bank.

- a) Towards                                      b) Inside

c) Along

d) Around

11. \_\_\_\_ his friends speak any English.

- a) Neither of                                      b) Some
- c) Both of                                      d) None of these

12. Unfortunately, I have \_\_\_\_ talent for music although I have always wanted to be a famous singer.

- a) A few                                      b) Little
- c) Plenty of                                      d) Few

13. If were you, I \_\_\_\_ be careful with my words.

- a) Will                                      b) Would
- c) Shall                                      d) Should

14. The mother of the dead child was overwhelmed \_\_\_\_ grief.

- a) By                                      b) With
- c) From                                      d) For

15. The conditions necessary \_\_\_\_ this project have not been met.

- a) Of completion
- b) For the complete of
- c) of complete
- d) For the completion of

**Directions : Select the wrongly spelt word:**

16. a) Germinate

b) Geometry

c) Generalise

d) Geniune

17. a) Beneficiary

b) Jewellry

c) Military

d) Literary

18. a) Commission

b) Omission

c) Possession

d) Occassion

19. a) Pronounciation

b) Millennium

c) Occurrence

d) Misspell

**Directions : Select the correctly spelt word:**

20. a) Renumerrtion

b) Renumaration

c) Renumertion

d) Remuneration

21. a) Parrallel

b) Parralel

c) Parallel

d) Paralel

22. a) Beificial                      b) Benificial  
c) Beneficial                      d) Benifical

23. a) Adultarate                      b) Adulterate  
c) Adultrate                      d) Adulltrate

**Directions : Select the correct sentence :**

24. a) After the picnic, we had lots of bread left.  
b) After the picnic we had lot of breads left.  
c) After the picnic we had lot of bread left.  
d) After the picnic, we had lots of breads left.

25. a) I did my work quick.  
b) I did my work very quick.  
c) I did my work quickly.  
d) None of the above

26. a) I am ready to say this at her face.  
b) I am ready to say this on her face.  
c) I am ready to say this in her face.  
d) I am ready to say this to her face.

27. a) The villagers were enjoying winter evening around the fire.  
b) The villagers were enjoying winter evening around fire.  
c) The villagers were enjoying winter evening round fire.  
d) The villagers were enjoying winter evening all round fire.

28. a) The team is confident to win the match.  
b) The team is confident of winning the match.  
c) The team is confident to win match.  
d) The team is confident for winning the match.

**Directions : Which option best expresses the given sentence in Indirect Speech :**

29. "Are you alone my son ?" asked a soft voice close behind me.  
a) A soft voice asked that what I was doing there alone.  
b) A soft voice said to me are you alone son.  
c) A soft voice from my back asked if I was alone.  
d) A soft voice behind me asked If I was alone.

30. He said to his father, "Please increase my pocket money."

- a) He told his father, "Please increase my pocket money."  
b) He pleaded his father to please increase my pocket money.  
c) He requested his father to increase his pocket money.  
d) He asked him to increase his pocket money.

**Directions : Select the word closest in meaning (synonym) to the word given :**

31. Impetuous  
a) Impious                      b) Impressive  
c) Hasty                      d) Disturbing
32. Deliberately  
a) Spontaneously                      b) Inadvertently  
c) Intentionally                      d) Naturally

**Directions : Select the word opposite in meaning (antonym) to the word given :**

33. Invalid  
a) Healthy                      b) Recovering  
c) Sound                      d) Deteriorating
34. Considerate  
a) Ignorant                      b) Lazy  
c) Angry                      d) Insensitive

**Directions : Select the word that can be substituted for the given words/sentence :**

35. Action that is likely to make people very angry  
a) Inflationary                      b) Inflammable  
c) Commensurable                      d) Inflammatory
36. A person who looks at the bright side of things  
a) Cynic                      b) Pessimist  
c) Optimist                      d) Sycophant
37. Not suitable for eating  
a) Tasteless                      b) Uneatable  
c) Inedible                      d) Spicy
38. The plants and vegetation of a region  
a) Landscape                      b) Environment  
c) Flora                      d) Fauna
39. Occurring at night  
a) Neurotic                      b) Nocturnal  
c) Dark                      d) Nightly

40. Study of the relation between an organism and environment

- a) Ecology
- b) Geology
- c) Botany
- d) Entomology

**Directions : Select the option closest in meaning to the idiom/phrase given :**

41. Right hand man

- a) An honest person
- b) Most efficient assistant
- c) One who cannot use his left hand
- d) A foolish person

42. To smell a rat

- a) Signs of plague epidemic
- b) Bad smell
- c) Suspect foul dealing
- d) To be in a bad mood

43. To be hard up

- a) To look depressed
- b) To keep starvation away
- c) To act excitedly
- d) To be short of money

44. At the eleventh hour

- a) Too late
- b) Too early
- c) Immediately
- d) At the last moment

**Directions : Fill in the blanks with the correct idiom/phrase :**

45. I know everything seems very bad at the moment but \_\_\_\_\_. I'm sure something good will come out of it.

- a) Ignorance is bliss
- b) Throw caution to the wind
- c) Every cloud has a silver lining
- d) Eat like a horse

46. I tend to \_\_\_\_\_ over most controversial issues. I'm never sure which side of the argument to support.

- a) Call a spade a spade
- b) Sit on the fence
- c) Play by the ear
- d) Black out

47. We'll be \_\_\_\_\_ to get this finished. It's 4pm

so we only have an hour left.

- a) Working against the clock
- b) At sea
- c) Beating around the bush
- d) Call it a day

48. I thought John was an idiot when I first saw him just because of the way he dressed. But \_\_\_\_\_ - he is a really nice person.

- a) Wear your heart on your sleeve
- b) Read between the lines
- c) You don't judge a tree by its fruit
- d) You don't judge a book by its cover

49. All my brothers hold important positions in the government. I have not been as successful. In fact I am \_\_\_\_\_.

- a) As busy as a beaver
- b) The black sheep of the family
- c) In the dog house
- d) A white elephant

50. They did not want to reveal their plans but he \_\_\_\_\_.

- a) Let sleeping dogs lie
- b) Hit the bull's eye
- c) Let the cat out of the bag
- d) Kill two birds with one stone

## **PART - B - GENERAL KNOWLEDGE & APTITUDE**

**Marks : 100**

**Each question carries 2 marks :**

**51.** Which of the following Organizations/Institutions launched the behaviour change campaign 'Navigating the New Normal' and its website to help people follow norms to contain the spread of Covid-19 ?

- a) The NITI Aayog
- b) The Finance Ministry
- c) The International Monetary Fund
- d) World Health Organisation

**52.** 'BHARAT GAURAV' Scheme is related to

- a) Infrastructure                      b) Education
- c) Tourism                              d) Women Safety

**53.** Which of the following is the objective of 'Nadu-Nedu' programme of Andhra Pradesh?

- a) Transform Government schools to improve learning outcomes
- b) Control the infant Mortality rate
- c) Increase pupil-teacher ratio in government schools
- d) Empowerment of disabled person

**54.** 'DOSTI' trilateral coast guard exercise is organized among

- a) India, China and South Korea
- b) Maldives, Sri Lanka and India
- c) Bangladesh, India and Sri Lanka
- d) India, Bangladesh and Maldives

**55.** Istanbul convention is related to

- a) Anti-human trafficking
- b) Child Education
- c) Violence against women and domestic violence
- d) Poverty eradication

**56.** The term 'PASIPHAE' is related to

- a) Solar mission
- b) Sky surveying project
- c) Higher education
- d) Women safety

**57.** Which of the following country gave assent to non-Muslim civil marriage ?

- a) Saudi Arabia                      b) UAE

c) Pakistan

d) Oman

**58.** Bloemfontein is the judicial capital of

- a) South Africa                      b) Denmark
- c) South Sudan                      d) The Netherlands

**59.** Delhi Declaration refers to

- a) Climate change summit
- b) Regional Security Summit on Afghanistan
- c) Initiative to curb pollution in Delhi
- d) Global initiative to eradicate domestic violence

**60.** Zircon hypersonic cruise missile is launched by which of the following nation ?

- a) Russia                              b) United States
- c) Japan                                d) North Korea

**61.** Which of the following articles of the Constitution of India deals with Financial Emergency?

- a) Article 352                      b) Article 356
- c) Article 360                      d) Article 370

**62.** The principal reason why it is better to have two eyes than one is that

- a) By having two eyes we can distinguish colour easily
- b) By having two eyes we can easily see in the dark as well as in dim light
- c) It gives a man a type of vision known as mosaic vision
- d) It enhances distance and depth perception in us.

**63.** Which one of the following is issued by the court in case of an illegal detention of a person?

- a) Habeas Corpus                      b) Mandamus
- c) Certiorari                          d) Quo-warranto

**64.** The concept of 'Directive Principles of State Policy' incorporated in the Constitution of India was borrowed from the Constitution of

- a) Australia                          b) USA
- c) Canada                              d) Ireland

**65.** Who coined the name 'PAKISTAN' ?

- a) Mohammad Ali Jinnah
- b) Fazlul Haq
- c) Liaquat Ali Khan

d) Chaudhry Rehmat Ali

66. Which country has the most islands in the world, the majority of which are uninhabited ?

- a) Finland                      b) Sweden
- c) Indonesia                  d) Australia

67. "Bombs and Pistols do not make revolution. The sword of revolution is sharpened on the whetting-stone of ideas". Who said this ?

- a) Azad                        b) Bhagat Singh
- c) Lala Lajpat Rai          d) Mahatma Gandhi

68. Acid Rains are produced by

- a)  $\text{CO}_2$ , CO and  $\text{SO}_2$
- b) Excess release of carbon monoxide by incomplete combustion
- c) Excess  $\text{NO}_2$  and  $\text{SO}_2$  from burning fossil fuels
- d) Ozone layer depletion

69. Which among the following international agencies publishes the 'ENERGY TRANSITION INDEX'?

- a) The World Bank
- b) The World Economic Forum
- c) The International Energy agency
- d) The International Monetary Fund

70. Which among the following was the first registered Trade Union of India ?

- a) Indian Trade Union Congress
- b) Madras Labour Union
- c) Hindu Mazdoor Sabha
- d) Centre of Indian Trade Unions

71. The Universities of Calcutta, Bombay and Madras were established as the outcome of which of the following, often referred as Magnacarta of English Education in India ?

- a) Hunter Commission Report, 1882
- b) Indian Universities Act, 1904
- c) Hartog Committee, 1929
- d) Sir Charleswood's Dispatch, 1854

72. Which one of the following is not related to United Nations ?

- a) Multilateral Investment guarantee agency
- b) International finance corporation
- c) International center for settlement of investment dispute
- d) Bank for International settlement

73. Who was first recipient of the Padma Shree

award from Meghalaya ?

- a) Patricia Mukhim          b) Manas Chaudhuri
- c) Prof. Badaplin War      d) Silverine Swer

74. Point Calimere Wildlife Sanctuary is situated in which of the following State ?

- a) Haryana                      b) Jammu and Kashmir
- c) Tamil Nadu                  d) Gujarat

75. 'Pusa decomposer' is related to which one of the following ?

- a) Organic farming          b) Stubble burning
- c) Sugar Production          d) Soil reclamation

76. Three of the following four are alike in a certain way and hence form a group. Which one does not belong to the group ?

- a) Year                          b) Month
- c) Week                         d) Time

77. Three of the following four are alike in a certain way and hence form a group. Which one does not belong to the group ?

- a) Pencil                        b) Chalk
- c) Note book                  d) Crayon

78. If Ramesh's mother's brother is Alok's father's brother, then Ramesh's mother is Alok's

- a) Grandmother              b) Aunt
- c) Cousin                      d) Sister-in-law

79. In a certain code 'GIVE' is written as 'VIEG' and 'OVER' is written as 'EVRO'. How will 'DISK' be written in that code ?

- a) SIDK                         b) KISD
- c) KDSI                         d) SIKD

80.  $0.08 \times ? \times 1.6 = 0.2944$

- a) 1.3                            b) 0.4
- c) 0.2                            d) 2.3

81.  $36\% \text{ of } 4800 \times 0.2\% \text{ of } 1320 = ?$

- a) 4535.52                      b) 4551.36
- c) 4561.92                      d) 4572.48

82.  $93 \times 45 \div 25 = ?$

- a) 167.4                        b) 837
- c) 279                          d) 130.2

83. Find the next number in the series :

5, 13, 25, 41, ?

- a) 58                            b) 61
- c) 96                            d) 73

84. Alfred buys an old scooter for Rs.4700.00 and then spends Rs.800.00 on its repair. If he sells the scooter for Rs.5800.00, the gain percent is

- a) 6.90%                      b) 5.45%  
c) 9.3%                        d) 12.6%

85. 'Much' is related to 'Many' in the same way as 'Measure' is related to

- a) Calculate                      b) Count  
c) Weigh                         d) Measurement

86. 'Clue' is related to 'Mystery' in the same way as 'warning' is related to

- a) Precaution                      b) Disaster  
c) Dream                         d) Danger

87. Select the related word from the given alternatives SEISMOMETER : EARTHQUAKES : THERMOMETER : ?

- a) Fever                         b) Doctor  
c) Mercury                      d) Temperature

88. Select the related word from the given alternatives

PLAY : ACTOR : CONCERT : ?

- a) Musician                      b) Piano  
c) Percussion                      d) Symphony

89. Anjali says, "He is the only son of the father of my sister's brother." How is that person related to Anjali ?

- a) Brother                         b) Father  
c) Uncle                         d) Cousin

90. From the given alternative words, select the word which cannot be formed using the letters of the given word (Using the alphabet only once)

THERMODYNAMICS

- a) Modern                         b) Dynamo  
c) Mathematics                      d) Mother

91. ERID is related to DIRE in the same way as RIPE is related to \_\_\_\_ ?

- a) EPIR                         b) PERI  
c) EPRI                         d) IPRE

92.  $10.8 \times 5.5 \times 8.4 = ?$

- a) 458.69                         b) 489.96  
c) 498.96                         d) 485.69

93. Output of a particular program followed the

pattern given below. Find the missing number :  
112, 141, 170, 199, \_\_\_, 257, 286

- a) 222                              b) 238  
c) 245                              d) 228

94. The average age of a group of 15 students was 14. The average age increased by 2 year when two new students joined the group. What is the average age of the two new students who joined the group ?

- a) 28                                b) 16  
c) 31                                d) 22

95. Which of the following years is not a leap year ?

- a) 1600                              b) 2100  
c) 2000                              d) 2024

96. Vicky can do a work in 15 days while Kenneth can do the same in 20 days. If both of them start doing the work at the same time, what fraction of work will be left after 4 days ?

- a)  $\frac{8}{15}$                                 b)  $\frac{7}{15}$   
c)  $\frac{4}{15}$                                 d)  $\frac{3}{4}$

97.  $14.5\%$  of 608 = ?

- a) 88.16                              b) 86.18  
c) 81.68                              d) 86.88

98.  $840 \div 40 \div 0.5 = ?$

- a) 8.5                                b) 21  
c) 10.5                                d) 42

99. What would be the simple interest accrued in 4 years on a principal of Rs.18,440 @ 15% p.a ?

- a) Rs.11,075                              b) Rs.12,250  
c) Rs.11,064                              d) Rs.12,985

100. A florist bought 360 roses at Rs.8 per dozen. He sold all of them at Rs.1 each. He made a profit of \_\_\_\_ ?

- a) Rs.240                              b) Rs.315  
c) Rs.120                              d) Rs.180

## PART - C - MATHEMATICS

Marks :100

Each question carries 2 marks :

101. Find the smallest number which when divided by 35, 56 and 91 leaves remainder 5 in each case.

- a) 3640                      b) 3645  
c) 3635                      d) 3655

102. Evaluate :  $16\%$  of 150 -  $25\%$  of 84 +  $8\%$  of 550

- a) 45                      b) 47  
c) 49                      d) 54

103. The sum of first  $n$  even natural number is given by the relation  $s = n(n+1)$ . Find  $n$  if the sum is 420

- a) 18                      b) 19  
c) 20                      d) 21

104. By selling an article for Rs.810, a man loses 10%. At what price should he sell it in order to gain 8% ?

- a) Rs.970                      b) Rs.985  
c) Rs.972                      d) Rs.982

105. A manufacturer buys raw materials worth Rs.50,000 and pays a sales tax of 40%. He sell the ready stock at Rs.78000 and charges sales tax at 8%. Find the value added tax (VAT) paid by the manufacturer.

- a) 3240                      b) 4240  
c) 5240                      d) 6240

106. A man spends 65% of his salary and saves Rs.525 per month. Find his monthly salary.

- a) Rs.1300                      b) Rs.1500  
c) Rs.1900                      d) Rs.2500

107. If 2 is added to the numerator of a fraction it reduces to  $\frac{1}{2}$  and if 1 is subtracted from the

denominator it reduces to  $\frac{1}{3}$ . Find the fraction

- a)  $\frac{3}{10}$                       b)  $\frac{10}{3}$   
c)  $\frac{2}{3}$                       d)  $\frac{3}{2}$

108. The denominator of a fraction is 3 more than its numerator. The sum of the fraction and

its reciprocal is  $2\frac{9}{10}$ , find the fraction

- a)  $\frac{2}{3}$                       b)  $\frac{2}{5}$   
c)  $\frac{3}{5}$                       d)  $\frac{3}{2}$

109. If  $\frac{5+2\sqrt{3}}{7+4\sqrt{3}} = a-b\sqrt{3}$ , then the values

of 'a' and 'b' are

- a) 7, 6                      b) 8, 9  
c) 11, 6                      d) 9, 11

110. If  $x = 3 + \sqrt{8}$ , then the value of  $x^2 + \frac{1}{x^2}$  is

- a) 24                      b) 34  
c) 38                      d) 42

111. Simplify :  $\frac{16 \times 2^{n+1} - 4 \times 2^n}{16 \times 2^{n+2} - 2 \times 2^{n+2}}$

- a)  $\frac{1}{2}$                       b)  $\frac{2}{3}$   
c)  $\frac{3}{4}$                       d)  $\frac{1}{3}$

112. If  $x$ ,  $y$  and  $z$  are positive real numbers then

$\sqrt{x^{-1}y} \cdot \sqrt{y^{-1}z} \cdot \sqrt{z^{-1}x}$  is -

- a) 0                      b) 1  
c) 2                      d)  $\frac{1}{2}$

113. A and B each have certain number of oranges. A says to B "If you give me 10 of your oranges, I will have twice the number of oranges left with you". B replies, "If you give me 10 of your oranges, I will have the same number of oranges as left with you". Find the number of oranges B have

- a) 40                      b) 50

c) 60

d) 70

114. A takes 10 days less than the time taken by B to finish a piece of work. If both A and B together can finish the work in 12 days, find the time take by B alone to finish the work.

a) 20

b) 30

c) 35

d) 40

115. A two digits number is 4 times the sum of its digits. If 18 is added to the number, the digits are reversed. Find the number

a) 22

b) 24

c) 26

d) 28

116. If three times the larger of two numbers is divided by the smaller one, we get 4 as the quotient and 3 as the remainder. Also if seven times the smaller number is divided by the larger one we get 5 as the quotient and 1 as the remainder. Find the smaller number

a) 15

b) 16

c) 17

d) 18

117. What is the 19<sup>th</sup> term of the sequence

$$a(n) = \frac{n(n-2)}{n+3}$$

a)  $\frac{303}{22}$

b)  $\frac{332}{22}$

c)  $\frac{323}{19}$

d)  $\frac{323}{22}$

118. Divide 16 into two parts such that twice the square of the larger part exceeds the square of the smaller part by 164. Find the larger part

a) 12

b) 10

c) 8

d) 6

119. One-fourth of a herd of camels was seen in the forest. Twice the square root of the herd had gone to the mountain and the remaining 15 camels were seen on the bank of the river. Find the total number of camels.

a) 30

b) 32

c) 34

d) 36

120. Two trains running in opposite directions cross a post standing on the platform in 30 seconds and 20 seconds respectively and they cross each other in 25 seconds. Then the ratio of their

speed is

a) 3 : 4

b) 2 : 3

c) 3 : 5

d) 1 : 2

121. In a school, the ratio of boys to girls is 4 : 5. If 100 girls leave the school the ratio becomes 6 : 7. How many girls are there in the school ?

a) 1200

b) 1500

c) 1400

d) 1300

122. In an Examination, the number of those who passed and the number of those who failed were in the ratio 3 : 1. Had 8 more appeared and 6 less passed, the ratio of passes to failures would have been 2 : 1. Find the number of candidates who appeared.

a) 132

b) 134

c) 136

d) 138

123. In an election between two candidates, one candidate secured 43% of the total votes polled and lost the election by 4900 votes. Find the total number of votes polled

a) 33000

b) 34000

c) 35000

d) 37000

124. 5% of the population of a certain town was killed in the bombarded and 70% of the remaining died in panic. If the population of the town is now 44175, find the population of the town at the beginning before the bombardment

a) 50000

b) 55000

c) 60000

d) 65000

125. Find the measure of an angle, if seven times its complement is 10° less than three times its supplement

a) 15°

b) 20°

c) 25°

d) 30°

126. The mean of first 8 observations is 18 and last 8 observations is 20. If the mean of all 15 observations is 19, find the 8<sup>th</sup> observation

a) 17

b) 18

c) 19

d) 21

127. Eight men can dig a field in 14 days working 6 hours a day. In how many days can 7 men dig the same field, working 8 hours a day.

a) 10

b) 11

c) 12

d) 13

128. A fort had provisions for 300 men for 90

days. After 20 days, 50 men left the fort. How long would the food last at the same rate ?

- a) 80                                      b) 82  
c) 84                                      d) 86

129. A vertical pole 2m 80cm high, casts a shadow 1m 60cm long. Find the length of the shadow casted by a 5m 25cm high pole.

- a) 2m                                      b) 3m  
c) 3.5m                                      d) 4m

130. A shopkeeper bought a T.V. at a discount of 30% of the listed price of Rs.24000. The shopkeeper offers a discount of 10% of the listed price to his customer. If the Value Added Tax (VAT) is 10%. Find the amount paid by the customer.

- a) 22560                                      b) 23540  
c) 23760                                      d) 23960

131. A man bought a plot for Rs.200000 and a car for Rs.220000 at the same time. The plot appreciates at the rate of 25% per annum. While the price of car depreciates at the rate of 20% per annum. If the man sold the plot and the car after 2 years, find his profit

- a) 23000                                      b) 23300  
c) 33300                                      d) 33500

132. A number 4.0 is wrongly read as 4.48. Find the percentage error.

- a) 8%                                      b) 10%  
c) 12%                                      d) 14%

133. A granary is in the shape of a cuboid of size 12m x 6m x 4m. If a bag of grain occupies a space of  $0.75\text{m}^3$ . How many bags can be stored in the granary ?

- a) 362                                      b) 376  
c) 384                                      d) 392

134. In a mixture of 45 litres, the ratio of milk to water is 13:2. How much water must be added to this mixture to make the ratio of milk to water as 3:1

- a) 4                                      b) 5  
c) 6                                      d) 7

135. The area of the trapezium is  $210\text{cm}^2$  and its height is 14cm. If one of the parallel sides is longer than the other by 6cm, find the two parallel sides

- a) 6, 12                                      b) 8, 14

c) 12, 18

d) 10, 16

136. The area of rectangle gets reduced by 80 square units if its length is reduced by 5 units and the breadth is increased by 2 units. If we increase the length by 10 units and decrease the breadth by 5 units, the area is increased by 50 square units. Find the length and breadth of the rectangle.

- a) 30, 40                                      b) 40, 30  
c) 40, 50                                      d) 50, 40

137. In what time will Rs.1200 earn an interest of Rs.240 at 5% ?

- a) 2 years                                      b) 3 years  
c) 4 years                                      d) 5 years

138. Calculate the compound interest for the second year on Rs.4000 invested for 3 years at 10% per annum.

- a) Rs.420                                      b) Rs.440  
c) Rs.460                                      d) Rs.480

139. Find the rate of interest per year, if the interest charged for 8 months be 0.06 times of the money borrowed

- a) 7%                                      b) 8%  
c) 9%                                      d) 6%

140. If the zeroes of the quadratic polynomial  $P(x) = 3x^2 + (2K-1)x - 5$  are equal in magnitude but opposite in sign, then the value of K is

- a)  $\frac{3}{2}$                                       b)  $\frac{1}{2}$   
c)  $\frac{3}{5}$                                       d)  $\frac{5}{3}$

141. The length of a chain used as boundary of the semi-circular park is 90cm. Find the area of the park

- a)  $450.25\text{cm}^2$                                       b)  $475.50\text{cm}^2$   
c)  $481.25\text{cm}^2$                                       d)  $495.75\text{cm}^2$

142. A field is in the form of a circle. The cost of ploughing the field at Rs.15 per  $\text{m}^2$  is Rs.57750. Find the cost of fencing the field at Rs.34 per metre.

- a) Rs.7280                                      b) Rs.7380  
c) Rs.7480                                      d) Rs.7550

143. Find the ratio between the total surface

area of a cylinder and its curved surface area, given that its height and radius are 7.5cm and 3.5cm respectively.

- a) 15:12                      b) 17:15
- c) 22:15                      d) 24:21

144. The sum of two numbers is 1000 and the difference between their square is 256000. Find their difference

- a) 254                      b) 256
- c) 258                      d) 260

145. A is elder to B by 2 years. A's father F is twice as old as A and B is twice as old as his sister S. If the ages of the father and sister differ by 40 years, find the age of A's father F.

- a) 50                      b) 48
- c) 52                      d) 54

146. 30 men can build a wall in 50 days. How many more men are required to build another wall, double in size in 75 days ?

- a) 8                      b) 10
- c) 12                      d) 14

147. Calculate the compound interest on Rs. 1000 for 2 years at  $8\frac{1}{2}\%$  per annum. Interest being compounded annually

- a) 165.23                      b) 170.23
- c) 177.23                      d) 187.33

148. A 1.5m tall boy stands at a distance of 3m from the lamp-post and casts a shadow of 4.5m on the ground. Find the height of the lamp-post.

- a) 2.3m                      b) 2.2m
- c) 2.5m                      d) 2.4m

149. From the top of a building 60m high, the angle of depression of the top and bottom of a tower are observed to  $30^\circ$  and  $60^\circ$ . Find the height of tower

- a) 30m                      b) 40m
- c) 20m                      d) 50m

150. The circumference of two circles are in the ratio 2:3. Find the ratio of their areas

- a) 4:5                      b) 4:7
- c) 5:9                      d) 4:9

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