

DO NOT BREAK THE SEAL OF THE BOOKLET UNTIL YOU ARE TOLD TO DO SO**SERIES : I****QUESTION BOOKLET****Subjects : General English, General Knowledge & Aptitude and Arithmetic****Full Marks : 300****Time Allowed : 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 Ballpoint Pen in the following three Parts :

Part—A	: General English	: 50 questions
Part—B	: General Knowledge & Aptitude	: 50 questions
Part—C	: Arithmetic	: 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. Answer must be shown by completely blackening the corresponding circle in the Answer Sheet against the relevant question number by Black Ballpoint Pen. OMR Answer Sheet without marking Series shall not be evaluated.

Example :

Suppose 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 Ballpoint Pen only as below :

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

The example shown above 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 (Q. Nos. 1-10) : In the following questions, some parts of the sentences have errors and some have none. Find out which part of the sentence has an error and mark the corresponding letter [(A), (B) or (C)]. If there is no error, mark (D) as the answer.

1. The oranges / and lemons /
(A) (B)

are citrus fruits. / No error
(C) (D)

2. Have you / eaten the / breakfast? /
(A) (B) (C)

No error
(D)

3. There was / a large bed /
(A) (B)

in their bedroom. / No error
(C) (D)

4. He left / in midnight / to his village. /
(A) (B) (C)

No error
(D)

5. He had a serious accident /
(A)

while coming off a / moving bus. /
(B) (C)

No error
(D)

6. The cows are / running /
(A) (B)

over the fence. / No error
(C) (D)

7. What do you / enjoy best /
(A) (B)

about your job? / No error
(C) (D)

8. She was revolted / by the way /
(A) (B)

he spoke. / No error
(C) (D)

9. Mani stays / with his /
(A) (B)

uncle and aunt. / No error
(C) (D)

10. He gave up / to smoke /
(A) (B)

a long time ago. / No error
(C) (D)

Directions (Q. Nos. 11-20) : Fill in the blanks with appropriate words from the given alternatives.

11. Dave had gained a lot of experiences about the world through his ____ readings.

- (A) vast
- (B) wide
- (C) extensive
- (D) extended

12. Means and ends are intimately and ____ connected.

- (A) inextricably
- (B) inexorably
- (C) implicitly
- (D) explicitly

13. The drug company has tested the ____ of the medicine.

- (A) edibility
- (B) evolution
- (C) extirpation
- (D) efficacy

14. The judge ____ the minister of the crime.

- (A) acquitted
- (B) accused
- (C) arrested
- (D) asserted

15. It was raining ____ last night.

- (A) instantly
- (B) incessantly
- (C) inadvertently
- (D) inaccurately

16. We have to learn to ____ ourselves to our surroundings.

- (A) adopt
- (B) adapt
- (C) adept
- (D) alight

17. She was not _____ by the past.

- (A) fitted
- (B) filtered
- (C) fettered
- (D) flittered

18. He has made a _____ suggestion which needs to be tried.

- (A) novel
- (B) nobel
- (C) humble
- (D) polite

19. John was very _____ before his first trip to China.

- (A) active
- (B) apprehensive
- (C) affirmative
- (D) appreciative

20. All her attempts to improve was _____ by her lack of willpower.

- (A) irritated
- (B) aggravated
- (C) initiated
- (D) hampered

Directions (Q. Nos. 21–30) : Choose the word/words which best expresses/express the meaning of the given word.

21. Arbitrary

- (A) Discretion
- (B) Determination
- (C) Distinction
- (D) Decision

22. Abysmal

- (A) Terrible
- (B) Tempting
- (C) Wicked
- (D) Promising

23. Cessation

- (A) Constantly
- (B) Sudden
- (C) Pause
- (D) Reaction

24. Ingenuity

- (A) Skill
- (B) Dullness
- (C) Confidence
- (D) Interest

25. Paramount
(A) Highest in importance
(B) Lowest in importance
(C) To climb upon a horse
(D) To get down from a horse

26. Tryst
(A) Destiny
(B) Disappearance
(C) Activity
(D) Appointment

27. Sinewy
(A) Having strong muscles
(B) Having weak muscles
(C) Having problem breathing
(D) Having problem walking

28. Lanky
(A) Very fat and short
(B) Very thin and ungracefully tall
(C) Simple
(D) Funny

29. Straggling
(A) Clustering
(B) Interrupting
(C) Uninteresting
(D) Trailing

30. Awning
(A) Cover usually of canvas
(B) A log cabin
(C) Uncovered area
(D) Open space

Directions (Q. Nos. 31–40) : In the following questions, four alternatives are given for the idiom/phrase underlined in the sentence. Choose the alternative which best expresses the meaning of the given idiom/phrase.

31. When Arjun saw it, his face went as white as a sheet.

- (A) very bad temper
(B) clean as snow
(C) pale with fear
(D) become very angry

32. Kelly has a heart of gold.

- (A) kind and generous
(B) hard hearted
(C) distant and unfriendly
(D) well-behaved

33. Rina knew the answer as quick as a flash.

- (A) tardily
(B) very gradually
(C) almost instantaneously
(D) to write very well

34. You have to remain cool as a cucumber.

- (A) to remain calm
(B) to remain motionless
(C) to remain silent
(D) to remain standing

35. The bed was as hard as iron.

- (A) made of metal
- (B) sturdy
- (C) uncomfortable
- (D) difficult

36. The Principal is like a bear with a sore head today.

- (A) having a headache
- (B) having a sore throat
- (C) having a very bad temper
- (D) unfriendly

37. He pulled a fast one on me.

- (A) lie
- (B) trick
- (C) race
- (D) cover

38. You should not poke your nose into other people's business.

- (A) smell
- (B) force yourself
- (C) interfere
- (D) decide

39. Rahul was over the moon when he got the news.

- (A) at ease
- (B) at a loss
- (C) depressed
- (D) delighted

40. You are barking up the wrong tree if you think she did it.

- (A) taking the wrong approach
- (B) misleading others
- (C) behaving inappropriately
- (D) to mistrust someone

Directions (Q. Nos. 41–45) : Fill in the blanks with appropriate prepositions.

41. We saw the moon clearly as it rose slowly _____ the trees.

- (A) above
- (B) under
- (C) against
- (D) by

42. Joy spoke to a man standing _____ the door.

- (A) from
- (B) to
- (C) at
- (D) by

43. Mickey prefers fishing _____ hunting.

- (A) in
- (B) to
- (C) against
- (D) before

44. Her best plan will be to go _____ train.

- (A) on
- (B) in
- (C) with
- (D) by

45. These holiday trips are written up fully _____ the weekly magazine.

- (A) in
- (B) on
- (C) with
- (D) under

Directions (Q. Nos. 46-50) : Read the passage carefully and answer the questions that follow.

The world is a vast field of action. Men come into this world. They grow up and have many duties to perform. After performing their duties, they retire from this world. There are different fields of activities. All men are not suited to do the same work. Work is done in accordance with their tastes and abilities. There have been great and prominent persons who have made a mark in different fields of work. Common people also work in different spheres according to their choice and abilities. Men have to struggle to achieve success in life.

46. This passage is about

- (A) being lazy and complacent
- (B) being active and hardworking
- (C) death and salvation
- (D) different work description

47. What does retire from this world indicate in the passage?

- (A) Sleep
- (B) Retirement
- (C) Death
- (D) Rest

48. If men are not suited to do the same work, then how will they work?

- (A) In accordance with their abilities
- (B) In accordance with their wishes
- (C) In accordance with their performance
- (D) In accordance with their age

49. How do famous persons contribute to the society?

- (A) Through their early retirement
- (B) Through their inventions
- (C) Through their hard work and dedication
- (D) Through their donations

50. Why should we struggle in life?

- (A) To enjoy our life
- (B) To be able to retire early
- (C) To receive blessings
- (D) To achieve success

PART—B : GENERAL KNOWLEDGE & APTITUDE

(Marks : 100)

Each question carries 2 marks

51. Green Book contains
(A) the list of endangered plants
(B) the list of extinct plants
(C) the list of rare plants grown in botanical gardens
(D) flora of a certain area
52. Golf player Vijay Singh belongs to which country?
(A) USA
(B) Fiji
(C) India
(D) UK
53. Fathometer is used to measure
(A) earthquake
(B) rainfall
(C) ocean depth
(D) sound intensity
54. Antibiotics are mostly obtained from
(A) fungi
(B) viruses
(C) microorganisms
(D) angiosperms
55. Development means economic growth plus
(A) inflation
(B) deflation
(C) price stability
(D) social change
56. The maximum greenhouse gas is released by which country?
(A) India
(B) France
(C) China
(D) Britain
57. The ratio of width of our National Flag to its length is
(A) 3 : 5
(B) 2 : 3
(C) 2 : 4
(D) 3 : 4
58. Bismillah Khan is related to
(A) Tabla
(B) Sarod
(C) Flute
(D) Shehnai
59. Which among the following is the State flower of Meghalaya?
(A) Lily
(B) *Hibiscus*
(C) *Chrysanthemum*
(D) *Paphiopedilum insigne*

60. Which Indian bank has acquired the consumer banking operations of Citibank?
- (A) HDFC Bank
(B) YES Bank
(C) AXIS Bank
(D) ICICI Bank
61. India has been elected as the host of ICC Women's Cricket World Cup in which year?
- (A) 2023
(B) 2025
(C) 2027
(D) 2030
62. Who are the beneficiaries of 'Pradhan Mantri Vaya Vandana Yojana'?
- (A) School students
(B) Senior citizens
(C) Below poverty line women
(D) MSMEs
63. When was the G20 'Space Economy Leaders Meeting (SELM)' held in Shillong?
- (A) 17th and 18th April, 2023
(B) 15th and 16th April, 2023
(C) 18th and 19th April, 2023
(D) 13th and 14th April, 2023
64. _____, Meghalaya's only female Formula 4 race car driver, will make a debut at the Indian National Rally Championship at Arunachal.
- (A) Phoebe Dale Nongneng
(B) Phoebe Dale Nongrum
(C) Phoebe Daley Nongbri
(D) Phoebe Gale Nongkhaw
65. What fraction of human blood is plasma?
- (A) 35%
(B) 45%
(C) 50%
(D) 55%
66. Hydroponics is a method of culture of plants without using _____
- (A) water
(B) soil
(C) light
(D) sand
67. What is the rank of India in the '2022 Environmental Performance Index (EPI)'?
- (A) 120
(B) 140
(C) 160
(D) 180

68. Which State hosted the 2nd edition of North East Olympic Games in 2022?
- (A) Assam
(B) Meghalaya
(C) Manipur
(D) Sikkim
69. When is the 'World Day for Safety and Health at Work' observed?
- (A) April 23
(B) April 26
(C) April 28
(D) April 30
70. 'Vesak' is associated with which religion?
- (A) Hinduism
(B) Islam
(C) Buddhism
(D) Jainism
71. Who is the author of the book titled *Cyber Encounters*?
- (A) Ashok Kumar
(B) Arun Kumar
(C) Alok Kumar
(D) Allwyn Kumar
72. Which company developed iNCOVACC, India's first intranasal Corona vaccine?
- (A) Biocon
(B) Dr. Reddy's Lab
(C) Bharat Biotech
(D) Serum Institute of India
73. Which country described India as 'Friendly Sovereign Global Centres of Power'?
- (A) Russia
(B) China
(C) USA
(D) UK
74. Which Act allows the Central Government to set up a fact checking unit?
- (A) IT Amendment Rules, 2023
(B) Digital India Act, 2023
(C) Digital Media Rules, 2023
(D) Free Speech Rules, 2023
75. What is the target of ethanol blending in petrol, set by India to reach by 2025?
- (A) 10%
(B) 15%
(C) 20%
(D) 30%

76. What percentage of numbers from 1 to 70 have 1 or 9 in the unit's digit?
- (A) 1
(B) 14
(C) 20
(D) 21
77. If A's salary is 25% more than B's salary, then B's salary is how much lower than A's salary?
- (A) 20%
(B) 25%
(C) 33%
(D) 17%
78. How many terms are there in the series 20, 25, 30, ..., 140?
- (A) 22
(B) 24
(C) 23
(D) 25
79. In a mixture of 60 litres, the ratio of milk and water is 2 : 1. If this ratio is to be 1 : 2, then the quantity of water to be further added is
- (A) 20 litres
(B) 30 litres
(C) 40 litres
(D) 60 litres
80. In a 500 m race, the ratio of the speeds of two contestants A and B is 3 : 4. A has a start of 140 m. Then, A wins by
- (A) 60 m
(B) 40 m
(C) 20 m
(D) 10 m
81. Six bells commence tolling together and toll at the intervals of 2, 4, 6, 8, 10 and 12 seconds respectively. In 30 minutes, how many times do they toll together?
- (A) 4
(B) 10
(C) 15
(D) 16
82. 3 pumps, working 8 hours a day, can empty a tank in 2 days. How many hours a day must 4 pumps work to empty the tank in 1 day?
- (A) 9
(B) 10
(C) 11
(D) 12
83. In order to obtain an income of ₹ 650 from 10% stock at ₹ 96, one must make an investment of
- (A) ₹ 3,100
(B) ₹ 6,240
(C) ₹ 6,500
(D) ₹ 9,600
84. Today is Monday. After 61 days, it will be
- (A) Wednesday
(B) Saturday
(C) Tuesday
(D) Thursday

85. A father said to his son, "I was as old as you are at the present at the time of your birth". If the father's age is 38 years now, the son's age five years back was

- (A) 14 years
- (B) 33 years
- (C) 19 years
- (D) 38 years

86. Look at the series 2, 1, $(1/2)$, $(1/4)$, What number should come next?

- (A) $(1/3)$
- (B) $(1/8)$
- (C) $(2/8)$
- (D) $(1/16)$

87. ELFA, GLHA, ILJA, ?, MLNA.

- (A) OLPA
- (B) KLMA
- (C) LLMA
- (D) KLLA

88. Pointing to a photograph of a boy Suresh said, "He is the son of the only son of my mother". How is Suresh related to that boy?

- (A) Brother
- (B) Uncle
- (C) Cousin
- (D) Father

89. Peacock : India :: Bear : ?

- (A) Australia
- (B) America
- (C) Russia
- (D) England

90. A and B invest in a business in the ratio 3 : 2. If 5% of the total profit goes to charity and A's share is ₹ 855, then the total profit is

- (A) ₹ 1,425
- (B) ₹ 1,500
- (C) ₹ 1,537.50
- (D) ₹ 1,576

91. Reena took a loan of ₹ 1,200 with simple interest for as many years as the rate of interest. If she paid ₹ 432 as interest at the end of the loan period, what was the rate of interest?

- (A) 3.6
- (B) 6
- (C) 18
- (D) Cannot be determined

92. A, B, C, D and E are sitting on a bench. A is sitting next to B, C is sitting next to D, D is not sitting with E who is on the left end of the bench. C is on the second position from the right. A is to the right of B and E, A and C are sitting together. In which position is A sitting?

- (A) Between B and D
- (B) Between B and C
- (C) Between E and D
- (D) Between C and E

93. If the ratio of the lengths of two rectangles is 7 : 8 and the breadths in the ratio of 2 : 3, find the ratio of the areas of the rectangles.

- (A) 3 : 4
- (B) 5 : 9
- (C) 3 : 8
- (D) None of the above

94. The idiom 'To drive home' means

- (A) to find one's root
- (B) to return to place of rest
- (C) to emphasize
- (D) back to original position

95. A hater of knowledge and learning is

- (A) bibliophile
- (B) philologist
- (C) misogynist
- (D) misologist

96. Find the odd number from the given alternatives.

- (A) 626
- (B) 841
- (C) 962
- (D) 1090

97. If SUMMER is coded as RUNNER, the code for WINTER is

- (A) SUITER
- (B) VIOUER
- (C) WALKER
- (D) SUFFER

98. A man walks 1 km to East and then he turns to South and walks 5 km. Again he turns to East and walks 2 km. After this he turns to North and walks 9 km. Now, how far is he from his starting point?

- (A) 3 km
- (B) 4 km
- (C) 5 km
- (D) 7 km

99. 0, 2, 3, 5, 8, 10, 15, 17, 24, 26, ?

- (A) 28
- (B) 30
- (C) 32
- (D) 35

100. There are deer and peacocks in a zoo. By counting heads they are 80. The number of their legs is 200. How many peacocks are there?

- (A) 20
- (B) 30
- (C) 50
- (D) 60

PART—C : ARITHMETIC

(Marks : 100)

Each question carries 2 marks

101. A six-digit number is divisible by 33. If 54 is added to the number, then the new number formed will also be divisible by
(A) 7
(B) 2
(C) 5
(D) 3
102. Five bells ring together at the intervals of 3, 5, 8, 9 and 10 seconds. All the bells ring simultaneously at the same time. They will again ring simultaneously after
(A) 6 minutes
(B) 4 minutes
(C) 9 minutes
(D) 8 minutes
103. The length and breadth of a rectangular field are 50.5 m and 25.6 m, respectively. If Sakshi walked 5 times around the field, then the total distance covered by her is
(A) 854 m
(B) 915 m
(C) 761 m
(D) 715 m
104. If $\sqrt{1 + \frac{a}{169}} = \frac{5}{13}$, then the value of a is
(A) 130
(B) 144
(C) 150
(D) -144
105. Which of the following statements is/are correct?
I. $\sqrt{144} \times \sqrt{36} < \sqrt[3]{125} \times \sqrt{121}$
II. $\sqrt{324} \times \sqrt{49} > \sqrt[3]{216} \times \sqrt{9}$
(A) Only I
(B) Only II
(C) Neither I nor II
(D) Both I and II
106. The average age of 25 men is 28 years. 5 new men of an average of 25 years joined them. The average age of all the men together is
(A) 26.5 years
(B) 28.5 years
(C) 29.5 years
(D) 27.5 years
107. Rohan is 6 years younger than Sohan and ratio of present ages of Sohan to Mohan is 12 : 5. If the ratio of present ages of Rohan to Mohan is 2 : 1, then the present age of Sohan is
(A) 36 years
(B) 30 years
(C) 24 years
(D) 18 years
108. The wrong number in the series
64, 34, 36, 56, 114, 287, 860
is
(A) 114
(B) 860
(C) 64
(D) 36

109. In an Olympiad Examination, out of 4800 students, 55% of the students have passed. The number of students passing the examination is
- (A) 2670
(B) 2640
(C) 3200
(D) 3600
110. The marked price of a ceiling fan is ₹ 4,200, and the shopkeeper allows a discount of 5% on it. If his profit is 14%, then the cost price of the fan is
- (A) ₹ 3,500
(B) ₹ 3,000
(C) ₹ 3,200
(D) ₹ 3,800
111. An investor sells shares at ₹ 400 each, which were originally bought at ₹ 350. If 100 shares are sold, then the profit is
- (A) ₹ 5,000
(B) ₹ 4,000
(C) ₹ 3,000
(D) ₹ 2,000
112. A bag contains 15 coins of rupee 2 and 25 coins of rupee 5. The ratio of number of 2-rupee coins to the number of 5-rupee coins is
- (A) 5 : 4
(B) 3 : 5
(C) 3 : 4
(D) 1 : 8
113. The number of books on Mathematics, Physics and Chemistry in a University library is in the ratio 8 : 5 : 9. There is a proposal to increase these books by 10%, 5% and 5% respectively. The ratio of the number of books after increment is
- (A) 212 : 117 : 47
(B) 37 : 47 : 83
(C) 176 : 105 : 189
(D) 189 : 115 : 117
114. Rohit started a business with ₹ 75,000 and after some months Simran joined him with ₹ 60,000. If the profit at the end of the year is divided in the ratio 3 : 1, then after how many months did Simran join Rohit?
- (A) 7
(B) 8
(C) 6
(D) 4
115. ₹ 6,000 is lent at the rate of 20% per annum on compound interest (compounded half-yearly). What will be the compound interest of 18 months?
- (A) ₹ 1,825
(B) ₹ 1,875
(C) ₹ 2,036
(D) ₹ 1,986
116. A mixture of milk and water measures 60 litres. It contains 10% water. How much water should be added to it, so that water becomes 25%?
- (A) 18 litres
(B) 14 litres
(C) 16 litres
(D) 12 litres

117. A policeman sees a thief at a distance of 150 m. He starts chasing the thief who is running at a speed of 5 m/s, while the policeman chases with a speed of 7 m/s. The distance covered by the thief when he is caught by the policeman is
- (A) 285 m
(B) 325 m
(C) 375 m
(D) 295 m
118. The ratio between lengths of trains A and B is 3 : 5. Speed of train A is 72 km/hr and that of train B is 54 km/hr, and they are running opposite to each other. If train A crosses train B in 16 seconds, then the length of train B is
- (A) 350 m
(B) 250 m
(C) 450 m
(D) 150 m
119. The speed of a boat in still water is 15 km/h. It can go 30 km upstream and return downstream to the original point in 4 hours 30 minutes. The speed of the stream is
- (A) 5 km/h
(B) 8 km/h
(C) 10 km/h
(D) 15 km/h
120. A can do a work in 36 days while B can do the same work in 48 days. If A works for x days while B works for $x + 2$ days, then one-third of the work is completed. The value of x is
- (A) 4
(B) 8
(C) 6
(D) 7
121. Pipes A and B together can fill a tank in 16 hr, whereas pipe C alone can empty the full tank in 24 hr. A and B were opened together for 10 hr and then closed. Pipe C was then opened. The tank will now be emptied by C in
- (A) 18 hr
(B) 12 hr
(C) 10 hr
(D) 15 hr
122. The calendar for the year 2032 is the same as for which year?
- (A) 2020
(B) 2021
(C) 2022
(D) 2060
123. How many times in a day the hands of a clock make a right angle?
- (A) 20
(B) 44
(C) 15
(D) 30

124. In a 200-metre race, if A finishes the race in 20 seconds before B and A's speed is 10 m/s, then B's speed is

- (A) 8 m/s
- (B) 5 m/s
- (C) 9 m/s
- (D) 6 m/s

125. The value of k for which the equations

$$6x + ky = 3, 9x - 15y = 21$$

have a unique solution, is

- (A) $k = 5$
- (B) $k \neq -10$
- (C) $k \neq 5$
- (D) $k = 10$

126. If $2^a + 3^b = 17$ and $2^{a+2} - 3^{b+1} = 5$, then

- (A) $a = 2, b = 3$
- (B) $a = -2, b = 3$
- (C) $a = 2, b = -3$
- (D) $a = 3, b = 2$

127. If $x^2 - 10x + k = 0$ and its two roots are m and n and if $m - n = 2$, then the value of n is

- (A) 2
- (B) 6
- (C) 4
- (D) 3

128. If one root of $x^2 - 6kx + 5 = 0$ is 5, then the value of k is

- (A) $-\frac{1}{2}$
- (B) -1
- (C) 1
- (D) 2

129. The sum of all the two-digit odd numbers is

- (A) 2475
- (B) 2530
- (C) 4905
- (D) 5049

130. The sum of three consecutive terms of an increasing AP is 30. If we add -1 and 10 in first and third terms respectively, then the numbers are in GP. The largest of these three numbers is

- (A) 10
- (B) 20
- (C) 15
- (D) 25

131. If $5^a = 3125$, then the value of 5^{a-3} is

- (A) 625
- (B) 25
- (C) 5
- (D) 225

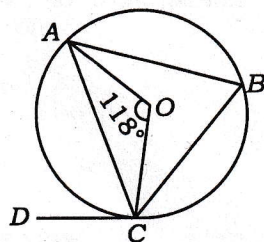
132. If $P = 7 + 4\sqrt{3}$ and $PQ = 1$, then the value of

$$\frac{1}{P^2} + \frac{1}{Q^2}$$

is

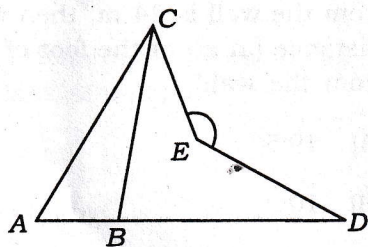
- (A) 182
(B) 196
(C) 194
(D) 206

133. In the given figure, BC is a chord, and CD is a tangent through the point C . If $\angle AOC = 118^\circ$, then the value of $\angle ACD$ is



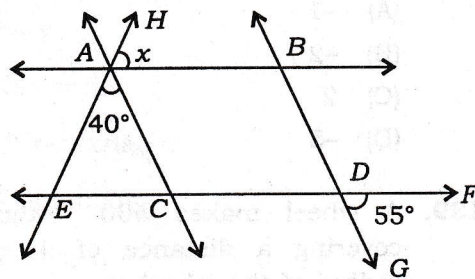
- (A) 63°
(B) 65°
(C) 59°
(D) 56°

134. If in the given figure, $\angle ACB + \angle BAC = 80^\circ$, $\angle BDE = 35^\circ$, $\angle BCE = 45^\circ$, then the marked angle $\angle CED$ is



- (A) 135° (B) 120°
(C) 160° (D) 150°

135. In the given figure, AB is parallel to CD and AC is parallel to BD . If $\angle EAC = 40^\circ$, $\angle FDG = 55^\circ$, $\angle HAB = x^\circ$, then the value of x is



- (A) 85°
(B) 80°
(C) 75°
(D) 65°

136. The relation between x and y , such that the point (x, y) is equidistant from $(5, 3)$ and $(4, 6)$, is

- (A) $x - 3y = 9$
(B) $x + 3y = 10$
(C) $x + 3y + 9 = 0$
(D) $3y - x = 9$

137. The equation of line passing through $(2, -3)$ and perpendicular to the line joining the points $(-3, 2)$ and $(9, 1)$ is

- (A) $12x - y = 27$
(B) $6x - y = 15$
(C) $x - 12y = 8$
(D) $4x + 5y = 9$

- 138.** A line passing through (4, 3) and (y, 0) is parallel to the line passing through (-1, -2) and (3, 0). The value of y is
- (A) -1
(B) -2
(C) 2
(D) -5
- 139.** A wheel makes 500 revolutions in covering a distance of 44 km. The radius of the wheel is
- (A) 28 m
(B) 7 m
(C) 21 m
(D) 14 m
- 140.** The perimeter of a square is the same as the perimeter of a rectangle. The perimeter of the square is 40 m. If its breadth is two-thirds of its length, then the area (in m^2) of the rectangle is
- (A) 96 (B) 84
(C) 100 (D) 121
- 141.** A circle is inscribed in an equilateral triangle of side 24 cm. The area (in cm^2) of a square inscribed in the circle is
- (A) 48
(B) 72
(C) 96
(D) 54
- 142.** If the volumes of two cubes are in the ratio of 64 : 125, then the ratio of their total surface areas is
- (A) 9 : 16
(B) 4 : 5
(C) 16 : 25
(D) 64 : 125
- 143.** The length of the longest pole that can be kept in a room 5 m long, 4 m broad and 3 m high is
- (A) $5\sqrt{2}$ m
(B) $6\sqrt{2}$ m
(C) $7\sqrt{2}$ m
(D) $\sqrt{2}$ m
- 144.** The number of spherical balls of radius 6 cm can be made by melting a solid hemisphere of radius 12 cm is
- (A) 4
(B) 2
(C) 10
(D) 8
- 145.** A ladder leaning against a wall makes an angle θ with the horizontal ground such that
- $$\tan \theta = \frac{12}{5}$$
- If the height of the top of the ladder from the wall is 24 m, then what is the distance (in m) of the foot of the ladder from the wall?
- (A) 19.5
(B) 10
(C) 18
(D) 7.5

146. A person of height 6 ft wants to pluck a fruit which is on a $\frac{26}{3}$ ft high tree. If the person is standing $\frac{20}{\sqrt{3}}$ ft away from the base of the tree, then at what angle should he throw a stone so that, it hits the fruit?
- (A) 45°
 (B) 60°
 (C) 30°
 (D) 75°

147. The angle of elevation of an aeroplane from a point on the ground is 60° . After flying 30 seconds, the angle of elevation changes to 30° . If the aeroplane is flying at a height of 4500 m, then what is the speed of the aeroplane?

- (A) $50\sqrt{3}$ m/sec
 (B) $100\sqrt{3}$ m/sec
 (C) $200\sqrt{3}$ m/sec
 (D) $300\sqrt{3}$ m/sec

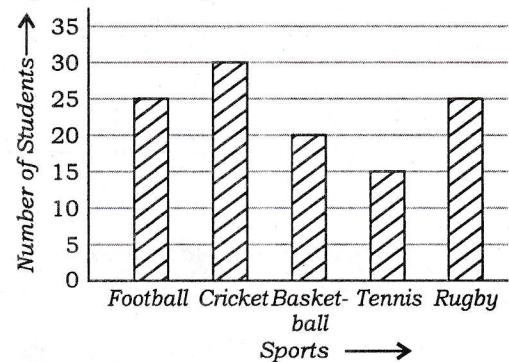
148. The table given below shows the number of spoons manufactured by five factories :

Factory	Spoons
P	100
Q	200
R	150
S	50
T	250

The ratio of number of spoons manufactured by P to the number of spoons manufactured by R is

- (A) 3 : 2
 (B) 2 : 3
 (C) 14 : 1
 (D) 1 : 3

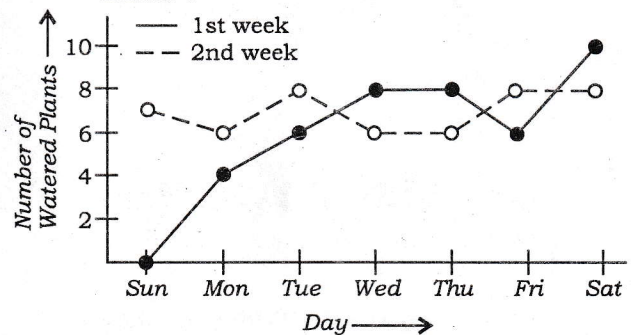
149. The given bar graph shows the different sports liked by students :



Based on the data in the graph, how many more students like cricket and tennis combined than those who prefer rugby?

- (A) 20
 (B) 18
 (C) 25
 (D) 30

150. Consider the following double-line graph of the number of watered plants by Harish in his school garden in two weeks :



- (A) Harish was more consistent in watering plants in the 2nd week than the 1st week
 (B) Harish was more consistent in watering plants in the 1st week than the 2nd week
 (C) The consistency of watering by Harish is same in both the weeks
 (D) It is impossible to interpret any such conclusion using the given representation