COMMON ENTRANCE TEST (CET) 2023
ADDITIONAL DIRECTORATE GENERAL OF ARMY EDUCATION (AE-2)

TIME: 2 Hrs 30 Min	CLASS - IX	SET-A

ROLL NO: QUESTION BOOKLET NO: 800637

Parts/Sections	No of Questions	Maximum Marks
PART-I		
Section-I : English	50	50 Marks
Section-II : Hindi	20	20 Marks
Section-III : Social Science	30	30 Marks
PART-II		
Section-IV : Mathematics	50	50 Marks
Section-V : Science	50	50 Marks

Instructions

- Do not open this booklet until you are asked to do so. Immediately after the commencement of the examination, you should check that this test booklet does not have any unprinted or torn or missing pages or questions etc. If so, get it replaced by a complete new test booklet.
- You have to enter your roll number on the test booklet in the space provided above.
- This test booklet contains 200 questions in five sections as above.
- Each question comprises four responses (answers). You will select the response which you want to mark on the answer sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case choose only one response for each question. If more than one circle is shaded, it will be treated as wrong answer.
- All questions are of objective type with multiple choice answers and carry equal marks. There is no negative marking.
- Please use black/blue ball pen to completely darken the circles corresponding to the correct answer. You have to mark all your responses only on the separate OMR answer sheet provided. Before you proceed to mark the response to various questions of the test booklet in the answer sheet, you have to fill in some particulars in the OMR answer sheet as per instructions given in the answer sheet.
- After you have completed filling in your responses on the answer sheet and the examination has concluded, you should hand over only the OMR answer sheet to the invigilator.
- You are permitted to take away the test booklet with you.

RMS CET EXAM CLASS-IX

PART - I

SECTION-I : ENGLISH

Direction: Choose the words that are nearest in meaning to the bold & underlined word(s)

1. The country has a **potential** to exploit more mineral resources
   - a. fortune
   - b. hidden possibility
   - c. capacity ✓
   - d. good luck

2. Seeing the room in a disorderly state, Ravi concluded that someone had **ransacked** the place.
   - a. upset
   - b. viewed
   - c. destroyed ✓
   - d. visited

3. Grandfather has been getting **feeble** off late.
   - a. tall
   - b. weak ✓
   - c. diseased
   - d. small

4. A feeling of brotherhood should be **nurtured** in the masses.
   - a. brought out
   - b. brought up
   - c. admired
   - d. encouraged ✓

5. I tried to persuade him to change his mind, but he remained **adamant.**
   - a. fixed
   - b. stubborn ✓
   - c. aggressive
   - d. defensive

6. He said, "Where are you going?"
   - a. He said that where I was going.
   - b. He asked where I was going. ✓
   - c. He told that he was going.
   - d. He says that where I was going.

7. He said to him, " You may go."
   - a. He told me to go.
   - b. He told that he would go.
   - c. I told him that he might go. ✓
   - d. He said to me to go.

8. Anjali says, "She is reading".
   - a. Anjali said that she was reading.
   - b. Anjali says that she is reading. ✓
   - c. Anjali says that she had been reading.
   - d. Anjali says that she will be reading.

9. He said, "Suresh is unwell."
   - a. He said that Suresh is unwell.
   - b. He told that Suresh was unwell.
   - c. He said that Suresh was unwell. ✓
   - d. He said that Suresh had been unwell.

10. Deepak said to his friend, " Work hard."
    a. Deepak told his friend to work hard.
    b. Deepak advised his friends for hard work.
    c. Deepak advised his friend for working hard.
    d. Deepak advised his friend to work hard.

Directions: In each of the following quesitons, out of the given alternatives, choose the one which best expresses the given word.

11. CROFTER
    a. fortress
    b. priest
    c. insane
    d. farmer

12. DEFUNCT
    a. active
    b. clever
    c. alive
    d. extinct

13. LEWDNESS
    a. recession
    b. indecency
    c. depression
    d. bliss

14. ANGST
    a. anxiety
    b. pride
    c. modesty
    d. simplicity

15. SAGACITY
    a. morality
    b. wisdom
    c. sanity
    d. uprightness

Directions: Select one correct word for the statements given below:

16. One who totally abstains from alcoholic drinks
    a. inebriate
    b. pedant
    c. teetotaler
    d. puritan

17. The killing of a human being
    a. murder
    b. assassination
    c. homicide
    d. suicide

18. Person who eats too much.
    a. fatty
    b. polyglot
    c. glutton
    d. preconcious

19. A child born after the death of his father
    a. orphan
    b. late
    c. progenitor
    d. posthumous

20. Period of ten years
    a. decade
    b. fortnight
    c. anniversary
    d. biennial

Directions: Choose the correct answer to the given idiomatic verbal expressions given below.

21. To hold one's tongue:
    a. to be ready
    b. to be silent ✓
    c. to speak
    d. to curb

22. To fall flat:
    a. to pass away
    b. to be fruitless
    c. to yield
    d. to collapse ✓

23. To be above board:
    a. to have a good height
    b. to be honest in any business deal
    c. to have no doubts ✓
    d. none of these

24. To be at home in:
    a. to feel safe ✓
    b. be well versed in
    c. to feel intimacy
    d. to have a fine time

25. To get rid of:
    a. to understand
    b. to prevail over
    c. to be deprived of
    d. to become free from ✓

Directions: Out of the alternatives given, select the word which closely fits each definition.

26. A person who does not believe in the existence of God
    a. theist
    b. atheist ✓
    c. agnostic
    d. ascetic

27. Animals that eat flesh
    a. herbivores
    b. carnivores ✓
    c. vegetarian
    d. graminivorous

28. An animal that is equally at home on land and in water.
    a. cannibal
    b. domestic
    c. ambhibians ✓
    d. aquatic

29. A tank where fish or water plants are kept.
    a. nursery
    b. aviary
    c. aquarium ✓
    d. apiary

30. A short journey for fun
    a. excursion ✓
    b. emigrant
    c. amateur
    d. emissary

Directions: Pick out a word from the given words to make the given sentences meaningully complete.

31. One of the committee members brought ………..an interesting point.
    a. up ✓
    b. with
    c. about
    d. forward

32. Does your pride prevent you ....making decision you know you should?
    a. away
    b. alert
    c. from
    d. quiet

33. I had not expected to meet him, it was quite an ....meeting.
    a. organised
    b. intentional
    c. undesirable
    d. accidental

34. I could ....see the sight since it was dark.
    a. clearly
    b. barely
    c. aptly
    d. obviously

35. Their ....to scale the mountain peak was an absolute failure.
    a. attempt
    b. desire
    c. anxiety
    d. proposal

Directions: Select the appropriate **synonym** (which is nearest to the meaning) to the words given in capital letters.

36. CHEERFUL
    a. colourful
    b. joyful
    c. beautiful
    d. powerful

37. BEHAVE
    a. act
    b. speak
    c. more
    d. manners

38. HONESTY
    a. integrity
    b. proficiency
    c. minority
    d. rarity

39. HOSTILE
    a. friendly
    b. inimical
    c. fallacious
    d. quarrelsome

40. REQUEST
    a. permit
    b. allow
    c. pray
    d. search

Directions: In each of the following questions, choose the alternative which can replace the word in bold without changing the meaning of the sentence.

41. It is not for **lay** leaders to evaluate a great poet.
    a. learned
    b. ordinary
    c. idle
    d. expert

42. The novel was so interesting that I was **oblivious** of my surroundings while reading it.
    a. indifferent
    b. watchful
    c. aware
    d. unaware

43. Her extraordinary stage appearance should not be attributed to sheer **fluke** only.   1
    a. event   b. effort
    c. accident   d. meeting

44. The examination is going to **commence** on the 10th of this month.   1
    a. fininsh   b. begin
    c. cancel   d. continue

45. The invasion force had no artillery and was completely **annihilated**.   1
    a. reduced   b. defeated ,
    c. dismembered   d. split

Read the passage given below carefully and answer the questions that follow:
Every year, millions of people around the world celebrate International Women's Day on March 8. This day is a reminder of the struggles and achievements of women throughout history and serves as a call to action for gender equality. The origins of International Women's Day date back to the early 20th century when women in different countries began to organize and protest against discrimination and inequality. In 1908, 15,000 women marched through New York City demanding shorter work hours, better pay, and voting rights. The following year, the first National Woman's Day was observed in the United States on February 28. In 1910, an International Women's Conference was held in Copenhagen, Denmark, where a proposal to establish an International Women's Day was passed. The first International Women's Day was observed on March 19, 1911, in Austria, Denmark, Germany, and Switzerland. Since then, International Women's Day has been celebrated in various ways around the world, from marches and rallies to cultural events and social media campaigns. The day is an opportunity to acknowledge the contributions of women to society and to advocate for their rights and empowerment.

46. What were the demands of the 15,000 women who marched through New York City   1
    in 1908?
    a. Better working conditions   b. Shorter work hours, better pay,
                                        and voting rights
    c. Equal pay and job opportunities   d. A and C both

47. In which year did the women come together for the first time to demand for their   1
    rights?
    a. 1908   b. 1910
    c. 1911   d. 1928

48. What is International Women's Day?
    a. A day to celebrate men   b. A day to celebrate women's
                                         achievements and call for
                                         gender equality
    c. A day to protest against   d. None of these
       women's rights

49. What is the purpose of International Women's Day?
    a. To acknowledge the contributions of men to society
    b. To advocate for women's rights and empowerment
    c. To protest against gender equality
    d. A and B both

50. Where was the first International Women's Day observed?
    a. United States
    b. Denmark
    c. Austria, Denmark, Germany, and Switzerland
    d. New York

PART - I

SECTION-II : HINDI

51. 'महेश' शब्द का सही संधि-विच्छेद है :
    a. महो + ईश
    b. महा + ईश
    c. मही + ईश
    d. महि + ईश ·

52. 'वर्षा' का पर्यायवाची शब्द है
    a. पावस
    b. मारुती
    c. नफरत
    d. मदन

53. 'वैज्ञानिक' शब्द में किस प्रत्यय का प्रयोग हुआ है?
    a. विज्ञान
    b. वैज्ञा
    c. निक
    d. इक

54. 'यथासमय' शब्द में कौन सा समास है
    a. अव्ययीभाव
    b. तत्पुरुष
    c. द्विगु
    d. द्वन्द्व

55. इनमें से कौनसा शब्द अशुद्ध है ?
    a. कलश
    b. कल्याण
    c. रसायन
    d. पूण्य

56. 'अमृत' का विलोम शब्द है –
    a. जीवन
    b. विष
    c. मीठा
    d. जल

57. 'अति' का विलोम शब्द है
    a. न्यून
    b. कम
    c. अल्प
    d. नगण्य

58. 'आशा' का विलोम शब्द है
    a. दुराशा
    b. निराशा
    c. हताशा
    d. नाउम्मीद

59. 'भारतीय' शब्द में किस प्रत्यय का प्रयोग हुआ है?
    a. ईय
    b. तीय
    c. भार
    d. भारत

60. जिसका मूल्य न किया जा सकता हो, के लिए उपयुक्त शब्द है
    a. बहुमूल्य
    b. अद्वितीय
    c. अमूल्य
    d. निर्मूल्य

61. 'पाठशाला' शब्द में कौन सा समास है
    a. अधिकरण तत्पुरुष
    b. सम्बन्ध तत्पुरुष
    c. करण तत्पुरुष
    d. सम्प्रदान तत्पुरुष

62. 'सूर्य' शब्द का स्त्रीलिंग क्या होगा ?
    a. सूर्याणी
    b. सूर्या
    c. सूर्यायी
    d. सूर्यी

63. 'जो जीता न जा सके', के लिए उपयुक्त शब्द है :
    a. अजेय
    b. अविजित
    c. विजयी
    d. दुर्जेय

64. धीरू और वीरू का .... है। मुहावरे से रिक्त स्थान की पूर्ति कीजिए :-
    a. पैर-घुंघरू का साथ
    b. दिल-दिमाग का साथ
    c. कुत्ते-हडी का साथ
    d. चोली-दामन का साथ

65. उपकार शब्द का विलोम है –
    a. अपकार
    b. आहार
    c. साकार
    d. आगम

66. जिसका वर्णन न किया जा सके, के लिए उपयुक्त शब्द है
    a. अकथ
    b. अकथ्य
    c. गरिष्ठ
    d. अवर्णनीय

67. इनमें से किस शब्द में लिंगप्रत्यय-संबंधी अशुद्धियाँ है?
    a. उज्ज्वल
    b. गायिका
    c. गोपी
    d. नारि

68. 'दक्षिणी' शब्द में किस प्रत्यय का प्रयोग हुआ है?
    a. णी
    b. ई
    c. दक्ष
    d. इणी

69. तुम तो कभी दिखाई ही नहीं देते, तुम्हें देखने को तरस गया, ऐसा लगता है कि तुम .... । मुहावरे से रिक्त स्थान की पूर्तिकीजिए :-
    a. ईद के चाँद हो गए हो।
    b. कहीं गुम हो गए हो।
    c. घर से बाहर न निकलते हो।
    d. ईद के सूरज हो गए हो।

70. 'परलोक' शब्द किस उपसर्ग का प्रयोग हुआ है?
    a. प
    b. पर
    c. पा
    d. प्र

71. When did Simon Commission Commission reach India? **(SST)**
    a. 1926
    b. 1927
    c. 1928
    d. 1930

72. Who was the first Viceroy of India?
    a. Robert Clive
    b. Lord Willam Bentick
    c. Warren Hastings
    d. Charles John Canning

73. Hindu Succession Amendment Act was passed in_____
    a. 2005
    b. 2006
    c. 2008
    d. 2010

74. Who devised the new-system of revenue called Mahalwari?
    a. Queen Elizabeth
    b. Holt Mackenzie
    c. Queen Victoria
    d. Gandhiji

75. Which article of constitution provides Indian citizens 'Right to Equality'?
    a. Article 17
    b. Article 14
    c. Article 29
    d. Article 42

76. What are the introductory lines of the Preamble of the Constitution of India?
    a. We, the Indians.........
    b. We, the citizens of India........
    c. We, the members of the Constituent Assembly.......
    d. We, the people of India.......

77. The contact zone between the lithosphere, hydrosphere and atmosphere is called_____.
    a. Tundra
    b. Biosphere
    c. Atmosphere
    d. Ocean

78. In which year Vasco da Gama, the Portuguese explorer discovered the sea route to India?
    a. 1498
    b. 1497
    c. 1456
    d. 1435

79. Who are firangis?
    a. Literate
    b. Spiritual
    c. Foreigners
    d. Maritime

80. How many members are there in Lok Sabha?
    a. 540
    b. 545
    c. 560
    d. 518

81. For what purpose Kusum and Palash flowers are used?
    a. Extracting oil from the seeds
    b. Colouring clothes and leather
    c. Cooking and making food
    d. All of them

82. What is the full form of TISCO ?
    a. Technical Iron and Steel Company
    b. Tata Iron and Steel Company
    c. Tatanagar Iron and Steel Company
    d. None of these

83. In which year was Sati banned?
    a. 1816
    b. 1827
    c. 1836
    d. 1829

84. Which continent of the world does not have a desert?
    a. Europe
    b. Asia
    c. Australia
    d. Africa

85. Deposition of sand in a low hill like structure is known as a:
    a. Glacier
    b. Sand dunes
    c. Hill
    d. Valley

86. Name the state in which Kakrapara Nuclear power station is situated?
    a. Rajasthan
    b. Gujarat
    c. Uttar Pradesh
    d. Maharashtra

87. In representative democracies, people participate:
    a. Directly
    b. Indirectly
    c. Both (a) & (b)
    d. None of these

88. Canadian shield is rich in:
    a. Gold and Uranium
    b. Bauxite
    c. Manganese
    d. Phosphate

89. Nomadic herding is practised in:
    a. Tropical region
    b. Temperate region
    c. Arid region
    d. Sub-tropical region

90. Nepal became democratic in _____.
    a. 2005
    b. 2006
    c. 2007
    d. 2008

91. Industrial locations are influenced by availability of_____.
    a. Raw material
    b. Labour
    c. Transport
    d. All of these

92. When was Swarnajayanti Gram Swarojgar Yojna started?
    a. 15th August 1947
    b. 26th January 1950
    c. 2nd October 1993
    d. 1st April 1999

93. Who was the first person to step foot on the Moon ?
    a. Neil Armstrong
    b. Harrison Hagan Schmitt
    c. Charles M. Duke
    d. David R. Scott

94. Where the Lal Bahadur Shastri National Academy of Administration is located?
    a. Shimla
    b. Delhi
    d. Mussoorie
    c. Ooty

95. Which place is known as "Manchester of Japan"?
    a. Tokyo
    b. Kyoto
    c. Osaka
    d. None of these

96. Which party got a maximum number of seats during 2019 Lok Sabha elections?
    a. BJP
    b. INC
    c. AAP
    d. NCP

97. Who is the leader of ruling party in the lok sabha?
    a. Prime minister
    b. President
    c. Speaker of lok sabha
    d. All of these

98. Acquit means :-
    a. Imprisonment given to victim
    b. Court declaring not guilty
    c. Both (a) & (b)
    d. None of these

99. Wearing a _____ is central to a Sikh's religious practice
    a. Pugri
    b. Suit
    c. Jacket
    d. All of these

100. Who designed New Delhi?
    a. Herbert Spencer and Charles Darwin
    b. Herbert Baker and Edward Lutyens
    c. Herbert Spencer and M Viswesvaraiah
    d. None of these

PART - II

SECTION-IV : MATHEMATICS

101. The value of $(-10/3) \times (-15/2) \times (17/19) \times 0$ is:
    a. 0
    b. 22.66
    c. 20
    d. 35

102. What least number must be subtracted from 7250 to get a perfect square?
    a. 22
    b. 23
    c. 25
    d. 24

103. $x2 - 2x+1$ is a polynomial in:
    a. One Variable
    b. Two Variables
    c. Three variable
    d. None of the these

104. If $p(x) = x + 3$, then $p(x) + p(-x)$ is equal to
    a. 3
    b. 2x
    e. 0
    d. 6

105. A number ending in 9 will have the unit place of its square as
    a. 3
    b. 9
    d. 1
    d. 6

106. The square root of 5.3 x 5.3 is
    a. 5.29
    b. 2.3
    c. 5.3
    d. 28.09

107. Rational Number Lying between 2 and 3 is/are
    a. 5/2
    b. 11/4
    c. Both A and B
    d. Neither A nor B

108. In a frequency distribution, the mid value of a class is 10 and the width of the class is 6. The lower limit of the class is:
    a. 6
    b. 7
    c. 8
    d. 12

109. The equation $y = 5$, in two variables, can be written as:
    a. $1.x + 1.y = 5$
    b. $0.x + 0.y = 5$
    c. $1.x + 0.y = 5$
    d. $0.x + 1.y = 5$

110. Which of the following is the numerical coefficient of x^2y^2?
    a. 0
    b. 1
    c. x^2
    d. y^2

111. The value of $(x + y)(x - y) + (y - z)(y + z) + (z - x)(z + x)$ is equal to
    a. $3x^2$
    b. $3y^2$
    c. $3z^2$
    d. 0

112. What is the radius of the largest circle that can be cut out of the rectangle measuring 10 cm in length and 8 cm in breadth?
    a. 4 cm
    b. 5 cm
    c. 8 cm
    d. 10 cm

113. Ramesh bought an air cooler for Rs. 3300 including a tax of 10%. The price of the air cooler before adding tax was :
    a. Rs. 2000
    b. Rs. 3000
    c. Rs. 2500
    d. Rs. 2800

114. The Pythagorean triplets whose smallest number is 8 are :
    a. 8, 16 17
    b. 8, 17, 18
    c. 8, 15, 17
    d. 8, 15, 16

115. If $(7/3)\%$ of a number is 42, then the number is
    a. 9800
    b. 8
    c. 1800
    d. 180

116. The area of a square is 100 cm². The circumference (in cm) of the largest circle cut of it is
   a. 110/7
   b. 220/7
   c. 330/7
   d. 20

117. A labourer is paid Rs. 806 for 13 days of work. If he receives Rs. 1,798, for how many days did he work?
   a. 29
   b. 35
   c. 60
   d. 40

118. The factorisation of $1 + p + q + r + pq + qr + pr + pqr$ is
   a. $(1 + p)(1 + q)(1 + r)$
   b. $(1 - p)(1 - q)(1 - r)$
   c. $(1 - p)(1 - q)(1 + r)$
   d. $(1 + p)(1 - q)(1 - r)$.

119. What is the probability of choosing a vowel from the alphabets?
   a. 21/26
   b. 5/26
   c. 1/26
   d. 3/26

120. The factors of $x^2 - 4$ are
   a. $(x - 2)(x - 2)$
   b. $(x + 2)(x - 2)$
   c. $(x + 2)(x + 2)$
   d. $(x - 4)(x - 4)$

121. What could be the possible one's digit of the square root of 676 ?
   a. 4, 6
   b. 5, 7
   c. 1, 8
   d. 2, 9

122. 100 persons had food provision for 24 days. If 20 persons left the place, the provision will last for
   a. 30 days
   b. 96/5 days
   c. 120 days
   d. 40 days

123. The width of each of five continuous classes in a frequency distribution is 5 and the lower class-limit of the lowest class is 10. The upper class-limit of the highest class is:
   a. 15
   b. 25
   c. 35
   d. 40

124. The mean of five numbers is 30. If one number is excluded, their mean becomes 28. What is the excluded number?
   a. 28
   b. 30
   c. 38
   d. 32

125. A sofa-set was bought for Rs 10000. Its value depreciated at the rate of 10% per annum. Find its value after one year.
   a. Rs 11000
   b. Rs 9000
   c. Rs 10000
   d. Rs 1000.

126. Pictorial representation of data using symbols is known as:
   a. Bargraph
   b. Pictograph
   c. Piechart
   d. None of these

127. On children?s day, sweets were to be equally distributed among 160 children in a school. Actually on the children's day 40 children were absent and therefore each child got 10 sweets extra. Total number of sweets were
    a. 3200
    c. 4000
    b. 2400
    d. 4800 ✓

128. The quadrilateral whose all sides are equal and angles are equal to 90 degrees, is called:
    a. Rectangle
    c. Kite
    b. Square ✓
    d. Parallelogram

129. Which among the following statements is not true?
    a. The centroid of a triangle divides each median in the ratio 2:1.
    c. In a right angled triangle, the circumcenter is the mid-point of the hypotenuse.
    b. The perpendicular bisectors of the sides of a triangle are Concurrent.
    d. The angle bisectors of a triangle are not concurrent. ✓

130. The price printed on a fan is RS. 2000/- and the shopkeeper allows a discount of 8% on it. What will be the selling price of a fan.
    a. Rs 1260
    c. Rs 1730
    b. Rs 1840 ✓
    d. Rs 2160

131. A circle of maximum possible size is cut from a square sheet of board. Subsequently, a square of maximum possible size is cut from the resultant circle. What will be the area of the final square?
    a. 3/4 of original square.
    c. 1/4 of original square.
    b. 1/2 of original square. ✓
    d. 2/3 of original square.

132. The range of the data 30,61,55,56,60,20,26,46,28,56 is
    a. 26
    c. 41 ✓
    b. 30
    d. 61

133. A batch of mangoes was packed in 25 boxes with 20 mangoes per box. If the same batch is packed using 25 mangoes per box, how many boxes would be filled?
    a. 10
    c. 40
    b. 30
    d. 20 ✓

134. In a cylinder, if radius is halved and height is doubled, the volume will be
    a. same
    c. halved ✓
    b. doubled
    d. four times

135. What will be the " one's digit" in the square of 1234?
    a. 6 ✓
    c. 8
    b. 2
    d. 9

136. The height of a cylinder whose radius is 7 cm and the total surface area is 968 cm²
    is:
    a. 15 cm
    b. 17 cm
    c. 19 cm
    d. 21 cm

137. The angles of a quadrilateral are in the ratio 6 : 7 : 8 : 9, then which of the following can be concluded?
    a. Exactly two angles are obtuse
    b. Two pairs of angles are supplementary
    c. Both A & B
    d. None of these

138. The smallest number by which 2560 must be multiplied so that the product will be a perfect cube.
    a. 35
    b. 25
    c. 8
    d. 5

139. The shifting of a number from one side of an equation to other is called
    a. Transposition
    b. Distributivity
    c. Commutativity
    d. Associativity

140. To draw the graph of a line, least number of points required
    a. one
    b. two
    c. three
    d. four

141. What is the sum of all angles of a hexagon
    a. 180⁰
    b. 360⁰
    c. 540⁰
    d. 720⁰

142. Which of the following numbers is not a perfect cube?
    a. 333
    b. 1728
    c. 1331
    d. 729

143. Every counting number has an infinte number of
    a. Factors
    b. Multiple
    c. Prime factors
    d. None of these

144. How many digits will be there in the cube root of 46656?
    a. 2
    b. 1
    c. 3
    d. 4

145. Let abc be a three digit number. Then abc + bca + cab is not divisible by
    a. a + b + c
    b. 3
    c. 37
    d. 9

146. The number of parts the coordinates axes divide the plane is
    a. Two parts
    b. Four parts
    c. Six parts
    d. Eight parts

147. Which of the following can't be a perfect square:

    a. 841
    c. 198
                             b. 529
                             d. All of the above

148. Latika bought a teapot for Rs 120 and a set of cups for Rs 400. She sold teapot at a profit of 5% and cups at a loss of 5%. The amount received by her is

    a. Rs 494
    c. Rs 506
                             b. Rs 546
                             d. Rs 534

149. The ratio of 10m to 10 km is:

    a. 1/10
    c. 1/1000
                             b. 1/100
                             d. 1000

150. The multiplicative identity of rational numbers is:

    a. 0
    c. 2
                               b. 1
                             d. -1

PART - II

SECTION -V : SCIENCE

151. In the male human, sperm contains 22 pairs of autosomes and
    a. A pair X- chromosome
                             b. One Y-chromosome
    c. A pair of Y-chromosome
                             d. Three X-chromosome

152. The epicentre of an earthquake is
    a. In the core of earth
                             b. On the surface of earth
    c. In the middle of earth
                             d. None of these

153. The stars forming a recognizable shape is called
    a. Constellation
                             b. System
    c. Galaxy
                             d. Asteroids

154. Lowest temperature at which a substance catches fire is known as
    a. Lowest temperature
                             b. Burning temperature
    c. Ignition temperature
                             d. Flaming temperature

155. Magnesium burns to form
    a. Calcium Carbonate
                             b. Magnesium Oxide
    c. Calcium Oxide
                             d. Magnesium Sulphate

156. When a copper vessel is exposed to moist air for long, it acquires a dull green coating. The green material is a mixture of
    a. Copper oxide and Copper Nitrate
                             b. Copper hydroxide & Copper Carbonate
    c. Copper carbonate and Copper sulphate
                             d. Copper hydroxide and Copper Nitrate

157. The nature of image formed by plane mirror is
    a. Real and inverted
    b. Virtual and erect
    c. Real and erect
    d. Virtual and inverted

158. Bacilli are the bacteria that are
    a. Rod-shaped
    b. Comma-shaped
    c. Curved-shaped
    d. Spiral

159. Metal oxides are
    a. Neutral
    b. Basic
    c. Acidic
    d. All of these

160. Cell wall is found in
    a. Plant cells only
    b. Animal cells only
    c. Both (a) and (b)
    d. None of them

161. Amit observed various types of cells. He reported largest vacuoles in a:
    a. Animal cell
    b. Virus
    c. Plant cell
    d. Prokaryotic cell

162. Weeds are controlled by chemicals called _____.
    a. Pesticides
    b. Fungicides
    c. Weedicides
    d. Insecticides

163. The non-metal which is liquid at room temperature is:
    a. Carbon
    b. Iodine
    c. Bromine
    d. Chlorine

164. In which process of plant carbon dioxide is converted into oxygen?
    a. Photosynthesis
    b. Transportation
    c. Transpiration
    d. Respiration

165. The Pachmarhi Biosphere Reserve in Madhya Pradesh consists one national park named :
    a. Bori
    b. Satpura
    c. Anand
    d. Dudhwa

166. In the sun, light and heat are produced by
    a. Chemical reactions
    b. Nuclear reactions
    c. Burning reactions
    d. Bunsen burner

167. Rhizobium (a Bacteria) which fixes atmospheric nitrogen are found in nodules growing in
    a. Roots of leguminous plants
    b. Leaves of leguminous plants
    c. Stem of Leguminous plants
    d. All of the above

168. Internal fertilisation takes place
    a. Inside male body
    b. Inside female body
    c. Outside female body
    d. Outside male body

169. Friction can be reduced by:
    a. Using lubricants
    c. Using fine powder
    b. Polishing
    d. All of these

170. Organic wastes can be decomposed to form _____, which can sustainably enhance the nutrient content of the soil.
    a. Compost
    c. Fertilizer
    b. Cow dung
    d. Pesticide

171. A student wants to make a model. She needs a hard material than can bend and can be made into a thin sheet. Which material should she pick?
    a. Chalk
    c. Paper
    b. Aluminum
    d. Rubber

172. Which instrument is used to measure earthquake?
    a. Richtograph
    c. Polygraph
    b. Seismograph
    d. None of these

173. Mouldable plastic like Polythene is an example of-
    a. Biodegradable substance
    c. Thermoplastics
    b. Thermosetting plastics
    d. Rayon

174. Egg are formed in the
    a. Testes
    c. Ovary
    b. Penis
    d. None of these

175. Which chemical is used in the rubbing surface provided for matchsticks?
    a. Sulphur
    c. Red phosphorus
    b. Gold
    d. White phosphorus

176. PCRA stands for
    a. Public Conservations Research Association
    c. Public Council of Research Association
    b. Petroleum Conservation Research Association
    d. Partial Counting of remaining Amendment

177. Which of the following gases is needed by plants for photosynthesis?
    a. Oxygen
    c. Carbon Dioxide
    b. Nitrogen
    d. Sulphur

178. Neptune has very low temperature due to
    a. Glacier on its surface
    c. Far distance from sun
    b. Presence of oxygen
    d. Huge amount of ice

179. By-product obtained after processing coal is useful in manufacturing plastics, synthetic dyes, naphthalene balls etc. The by product is _____
    a. Coal gas
    c. Coke
    b. Coal tar
    d. Paraffin wax

180. Noise pollution causes:
 a. Lack of sleep
 b. Hypertension ✓
 c. Anxiety
 d. All of these

181. Rocket works on the principle of conservation of
 a. Mass
 b. Energy
 c. Momentum ✓
 d. Velocity

182. In sitar sound is produced by:
 a. Streching Strings ✓
 b. Rubbing
 c. Blowing
 d. Beating

183. The substances which have very low ignition temperature and can easily catch fire with a flame are called-
 a. Inflammable substances ✓
 b. Flaming substance
 c. Fire proof substance
 d. None of the above

184. The sex of child depends on the
 a. Blood group of mother
 b. Sperm of father ✓
 c. Blood group of father
 d. Ovum of mother

185. Pitch of sound is determined by its
 a. Frequency ✓
 b. Speed
 c. Amplitude
 d. Loudness

186. Which of these is a well known migratory species?
 a. Golden finches
 b. Albatross
 c. Dodo
 d. Archaeopteryx ✓

187. The other name of cell membrane is
 a. Plasma membrane ✓
 b. Cell wall
 c. Nuclear membrane
 d. None of these

188. The chemical substances rich in nutrients are called
 a. Fertilisers ✓
 b. Weedicides
 c. Pesticides
 d. Herbicides

189. We are able to see an object due to the presence of
 a. Light ✓
 b. Dark
 c. Refraction
 d. Object

190. First menstrual flow is called_____.
 a. Menopause
 b. Menarche ✓
 c. Menstruation
 d. Ministration

191. The combustion reaction which occurs on its own, without any external supply of heat is called as:
 a. Explosion
 b. Spontaneous combustion ✓
 c. Fire
 d. Rapid combustion

192. Which of the following is a bad conductor of electricity?
   a. Distilled water
   b. Silver nitrate
   c. Sulphuric acid
   d. Copper sulphate

193. Which of the following metal is stored in kerosene?
   a. Sodium
   b. Magnesium
   c. Phosphorus
   d. Zinc

194. When sufficient oxygen is not available, combustion of methane produces gas and water.
   a. Nitrogen
   b. Hydrogen
   c. Carbon monoxide
   d. Carbon dioxide

195. Which of the following is made up of cellulose?
   a. Cell membrane
   b. Golgi body
   c. Chloroplast
   d. Cell wall

196. The places where animals receive protection is called
   a. Zoo
   b. National parks
   c. Rock shelters
   d. None of these

197. The method of loosening the soil is called
   a. Harvesting
   b. Ploughing
   c. Leveling
   d. Threshing

198. Cloning is a mode of
   a. Sexual production
   b. Asexual production
   c. Both I and II
   d. None of these

199. Light passing through a prism splits into seven colours. This is called
   a. Dispersion
   b. Dissolution
   c. Division
   d. None of the above

200. Thermoplastics can be:
   a. Never remoulded
   b. Destroyed by heating
   c. Non melting
   d. Non recyclable