EN/EBHALI/9/21

A

INSTRUCTIONS

1. This Question Paper Booklet contains **five** Sections. Section "A" Mathematics contains 50 questions of 4 marks each. Section "B" English, Section "C" General Science, Section "D" Social Studies and Section "E" Intelligence contain 25 questions each of 2 marks per question. In all, the paper consists of 150 questions for a total of 400 marks. Answer all questions.

2. The test is of 3 hours (180 minutes) duration.

3. The Question Paper Booklet is of 24 pages. Please check and ensure that the Question Paper Booklet is complete and contains all the pages.

4. The Question Paper Booklet is in English only for all the candidates.

5. Answer all questions in the OMR Answer Sheet only.

6. The OMR Answer Sheet is inside this Question Paper Booklet. When you are directed to open the Question Paper Booklet, take out the OMR Answer Sheet and fill the particulars carefully with blue/black ball point pen only.

7. Darken only one circle as your answer for each question. If you darken more than one circle for the same question, your answer will be treated as wrong.

8. There is no negative marking for a wrong answer.

9. Do not make unnecessary marks on the OMR Answer Sheet or fold or attempt to deface it. If you do so, your OMR Answer Sheet will not be evaluated.

10. Use Blue/Black Ball Point Pen only for writing particulars on this page and for writing answers. Do not use pencil.

11. Rough work is to be done on the space provided for this purpose in the Question Paper Booklet only and not on the OMR Answer Sheet.

12. On completion of the test, hand over the OMR Answer Sheet to the Invigilator before leaving the Room/Hall.

13. You are allowed to take away this Question Paper Booklet with you.

14. The CODE for this Booklet is **A**. Make sure that the CODE printed on the OMR Answer Sheet is the same as that on this Question Paper Booklet. In case of discrepancy, report the matter immediately to the Invigilator for replacement of both the Question Paper Booklet and the OMR Answer Sheet.

15. Do not write your Roll No. anywhere else except in the specified space in the Question Paper Booklet/OMR Answer Sheet.

16. Do not use white fluid for carrying out any correction on the OMR Answer Sheet.

1. The value of $1 + \cfrac{1}{1 + \cfrac{1}{1 + \cfrac{1}{9}}}$ is

   (1) $\dfrac{29}{19}$ (2) $\dfrac{10}{19}$ (3) $\dfrac{29}{10}$ (4) $\dfrac{10}{9}$

2. Find the sum of $3\cdot\overline{2}$ and $5\cdot\overline{4}$.

   (1) $\dfrac{78}{3}$ (2) $\dfrac{58}{3}$ (3) $\dfrac{58}{9}$ (4) $\dfrac{78}{9}$

3. What should be added to $-\dfrac{7}{3}$ to get $\dfrac{3}{7}$?

   (1) $\dfrac{21}{58}$ (2) $\dfrac{58}{21}$ (3) $\dfrac{47}{21}$ (4) $\dfrac{50}{21}$

4. The difference between two whole numbers is 66. The ratio of the two numbers is 5 : 2. The two numbers are

   (1) 60 and 6   (2) 100 and 33

   (3) 110 and 44   (4) 99 and 33

5. If angle A and angle C are two opposite angles of a parallelogram, then

   (1) angle A > angle C   (2) angle A = angle C

   (3) angle A < angle C   (4) None of these

6. The lengths of the diagonals of a rhombus are 16 cm and 12 cm respectively. Find the length of each of its sides.

   (1) 30 cm   (2) 10 cm

   (3) 20 cm   (4) 28 cm

7. If the mean of the following data is 8, then find the value of x :

   2, 4, 8, 6, x, 5

   (1) 17   (2) 23

   (3) 48   (4) 25

8. Data collected in a survey shows that 40% of the buyers are interested in buying a particular brand of toothpaste. The central angle (in degrees) of the sector of the pie chart representing this information is

(1) 120   (2) 150   (3) 144   (4) 40

9. The monthly salary of a person is ₹ 15,000. The central angle of the sector representing his expenses on food and house rent on a pie chart is 60°. The amount he spends on food and house rent is

(1) ₹ 5,000   (2) ₹ 2,500   (3) ₹ 6,000   (4) ₹ 9,000

10. The mid value of a class interval is called its

(1) class limit   (2) class mark

(3) width   (4) range

11. If the mode of a distribution is 12 and the mean is 3, then the median is

(1) 8   (2) 36   (3) 4   (4) 6

12. The square root of 0·00000121 is

(1) 0·011   (2) 0·00011   (3) 0·0011   (4) 0·11

13. Which least number should be subtracted from 108245 so as to get a perfect square ?

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

14. Find the one's digit of the cube root of 6,859.

(1) 2   (2) 3

(3) 9   (4) 1

15. The smallest natural number by which 1296 must be divided to get a perfect cube is

(1) 16   (2) 6   (3) 60   (4) 26

16. 72% of 25 students are good in Mathematics. How many are *not* good in Mathematics ?

(1) 18   (2) 7   (3) 15   (4) 9

17. I purchased 1 dozen pencils at the rate of 5 paise per pencil. For how much should I sell a pencil to make 20% profit ?

    (1)   4 paise   (2)   10 paise

    (3)   6 paise   (4)   8 paise

18. A sum amounts to ₹ 4,410 after two years at 5% compound interest per annum. What is the principal ?

    (1)   ₹ 3,000   (2)   ₹ 4,100

    (3)   ₹ 4,000   (4)   ₹ 4,200

19. What will you get when you subtract $3x - 4y - 7z$ from the sum of $x - 3y + 2z$ and $-4x + 9y - 11z$?

    (1) $-6x + 10y - 2z$ (2) $6x + 10y - 2z$

    (3) $-6x - 10y - 2z$ (4) $-6x + 10y + 2z$

20. Find the remainder when $5x^2 - 4x + 3$ is divided by $(x - 2)$.

    (1)   14   (2)   15   (3)   18   (4)   12

21. If $x - \dfrac{1}{x} = 3$, then the value of $x^4 + \dfrac{1}{x^4}$ is

    (1)   194   (2)   119   (3)   114   (4)   116

22. The area of the square having diagonal of length 'd' is given by

    (1) $\dfrac{d}{2}$ (2) $\dfrac{d^2}{2}$

    (3) $\dfrac{d^2}{4}$ (4) $2d$

23. The perimeter of a circle having area 154 sq. cm is

    (1)   22 cm   (2)   44 cm   (3)   88 cm   (4)   66 cm

24. Find the area of a rhombus having perimeter 80 cm and one diagonal 24 cm.

    (1)   354 sq. cm   (2)   364 sq. cm   (3)   384 sq. cm   (4)   480 sq. cm

25. What is the ratio of the volume of a cylinder and that of a cone on the same base and of the same height ?

(1) 1 : 2   (2) 1 : 4   (3) 4 : 3   (4) 3 : 1

26. If the height and the radius of a cone are doubled, the volume of the cone becomes

(1) 2 times   (2) 4 times   (3) 6 times   (4) 8 times

27. The total surface area of the hemisphere of volume 19404 cu. cm is

(1) 4158 sq. cm   (2) 2772 sq. cm

(3) 5544 sq. cm   (4) 4258 sq. cm

28. The value of $125^{-\frac{1}{3}}$ is

(1) $\dfrac{1}{3}$ (2) $\dfrac{1}{5}$ (3) 3   (4) 5

29. The value of $(64^{\frac{2}{3}})^{\frac{1}{2}}$ is

(1) 5   (2) 4

(3) 3   (4) 8

30. What is the value of $\left(\dfrac{1}{2}\right)^{-2} + \left(\dfrac{1}{3}\right)^{-2} + \left(\dfrac{1}{4}\right)^{-2}$?

(1) $\dfrac{1}{29}$ (2) $\dfrac{1}{9}$ (3) $\dfrac{1}{5}$ (4) 29

31. The additive identity for integers is

(1) 0   (2) 1   (3) − 1   (4) does not exist

32. Associative property of multiplication of integers

(1) exists   (2) does not exist

(3) holds without 0   (4) None of these

33. If ABC is an equilateral triangle of side a, then its altitude is equal to

(1) $\dfrac{\sqrt{3}}{4}a$ (2) $\dfrac{\sqrt{3}}{2}a$ (3) $\sqrt{3}a$ (4) $\dfrac{\sqrt{3}}{5}a$

34. What is the number of possible outcomes in throwing two dice simultaneously ?

(1)   6   (2)   12

(3)   36   (4)   4

35. Two coins are tossed simultaneously. The probability of getting at most one head is

(1) $\frac{1}{2}$ (2) $\frac{3}{4}$ (3) $\frac{2}{3}$ (4)   1

36. There is food provision for 100 men for 30 days. If the number of men is reduced to 80, then the number of days the food could last for is

(1)   28   (2)   35   (3) $37\frac{1}{2}$ (4)   37

37. A vertical pole 14 m high casts a shadow of 10 m. What will be the height of a tree that casts a shadow of 15 m under similar conditions ?

(1)   15 m   (2)   20 m   (3)   21 m   (4)   24 m

38. If 15 workers can build a wall in 48 hours, how many workers will be required to do the same work in 30 hours ?

(1)   15   (2)   14   (3)   24   (4)   30

39. If $a + b + c = 5$ and $ab + bc + ca = 10$, then $a^3 + b^3 + c^3 - 3abc$ is

(1) -25 (2)   25   (3) -50 (4) -75

40. If $\frac{a}{b} + \frac{b}{a} = 2$, then $a^3 - b^3 =$

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

41. Factorisation of $3\sqrt{3}x^3 - 8$ is

(1) $(\sqrt{3}x - 2)(3x^2 + 2\sqrt{3}x + 4)$

(2) $(\sqrt{3}x + 2)(3x^2 + 2\sqrt{3}x + 4)$

(3) $(\sqrt{3}x - 2)(3x^2 + 2\sqrt{3}x + 8)$

(4) $(\sqrt{3}x - 2)(3x^2 - 2\sqrt{3}x + 4)$

42. At what distance does the point (12, 5) lie from the origin ?

(1) 17

(2) 7

(3) 13

(4) 60

43. A can do a work in 25 days and B can do the same work in 20 days. If they work together for 5 days and then A leaves, in how many days can B finish the remaining work ?

(1) 10

(2) 11

(3) 12

(4) 14

44. The difference of a two-digit number and the number obtained by reversing the digits is always a multiple of

(1) 11

(2) 9

(3) 7

(4) 10

45. In a triangle, if two of the angles are complementary, then the measure of the third angle is

(1) 40°

(2) 45°

(3) 75°

(4) 90°

46. If the exterior angle of a triangle is 60° and the interior opposite angles are in the ratio 1 : 3, then the angles of the triangle are
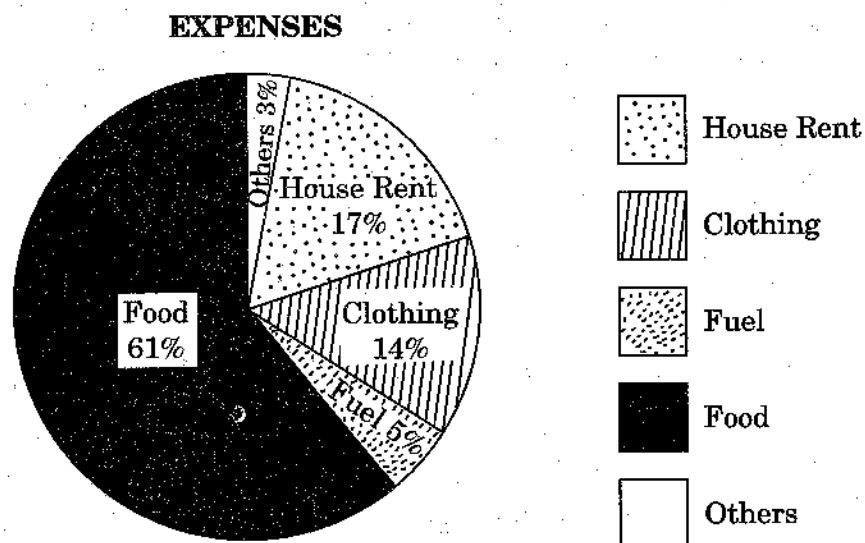
(1) 15°, 45°, 110°

(2) 120°, 10°, 50°

(3) 120°, 45°, 15°

(4) 60°, 90°, 30°

47. If a transversal intersects two parallel lines, then the consecutive interior angles on the same side of the transversal are

(1) complementary

(2) supplementary

(3) equal

(4) None of these

48. Line l is perpendicular to line m and line m is perpendicular to line n. Then the lines l and n are

(1) parallel to each other.

(2) perpendicular to each other.

(3) intersecting.

(4) None of the above

49. From the pie chart, the shares of central angle for food and fuel, respectively, are

EXPENSES

(1) 210°, 20°

(2) 219·6°, 18°

(3) 209·6°, 20°

(4) 209·6°, 18°

50. What is alternate name of a pie chart ?

(1) Pictograph

(2) Histograph

(3) Circle chart

(4) None of these

SECTION B

ENGLISH

Read the following passage and answer the following questions (Q. 51 – 53) by choosing the most appropriate option.

Marie Curie

Marie Curie grew up in Warsaw, Poland where she was born on November 7, 1867. Her parents were both teachers. The child of two teachers, Marie, was taught to read and write early in life. She was a very bright child and did well in school. She had a sharp memory and worked hard on her studies. As Marie grew older, her family came upon tough times. Poland was under the control of Russia at that time. People were not even allowed to read or write anything in the Polish language. Her father lost his job because he was in favour of Polish rule. Marie lost her elder sister and mother to typhus and tuberculosis respectively. After graduating from high school, Marie wanted to attend a university, but this wasn't something that young women did in Poland during the years covering the period 1800 – 1900. The university was for men. However, there was a famous university in Paris, France called the Sorbonne that women could attend. Marie did not have the money to go there, but agreed to work to help pay for her sister Bronislawa to go to school in France, if she would help Marie after she graduated. It took six years, but, after Bronislawa graduated and became a doctor, Marie moved to France and entered the Sorbonne. Marie arrived in France in 1891. Marie lived the life of a poor college student, but she loved every minute of it. She was learning so much. After three years she earned her degree in Physics.

51. A lot of emphasis was laid on Marie's education because

    (1)   Marie was the sole earning member of the family.

    (2)   Marie was born into a family of teachers.

    (3)   education of girls was very important in Poland.

    (4)   she was the only member of the family who could read.

52. Which of the following statements about the passage is *not* true ?

    (1)   Marie's elder sister died of tuberculosis and mother of typhus.

    (2)   Marie's father was a patriotic man.

    (3)   Marie passed out of the University of Sorbonne.

    (4)   The Polish universities discriminated against girls.

53. Marie thoroughly enjoyed the university years

    (1)   while her sister worked hard to pay the fees.

    (2)   although she did not want to study medicine.

    (3)   despite living on meagre funds.

    (4)   but was denied the university degree.

54. Choose the correct spelling.

(1) Benevolent   (2) Benovalent

(3) Benovolent   (4) Benovelent

55. The correct synonym of the word Zenith is

(1) Infinite   (2) Bottom   (3) Pinnacle   (4) Medium

56. The room was filled by the wizard's shrieks of <u>fiendish</u> laughter.
(Select the correct antonym of the underlined word)

(1) cunning   (2) vicious   (3) loud   (4) pleasant

57. I am doing hardwork to get to the college of my choice.
(Identify the incorrect part of the sentence)

(1) I am   (2) doing hardwork

(3) to get to   (4) the college of my choice

58. She speaks _____ all of us when she says that we are grateful for your kindness.
(Choose the most appropriate preposition)

(1) about   (2) to   (3) for   (4) of

59. Between his cat and his dog, his cat is _____ more loyal of the two.
(Choose the correct answer)

(1) a   (2) an   (3) the   (4) No article

60. After the school was dismissed, she said with <u>pretended</u> casualness that she wanted to go and meet the new teacher.
(Identify the type of verb)

(1) Intransitive verb   (2) Participle

(3) Transitive verb   (4) Infinitive

61. You _____ an accident if you go on driving like that.
(Choose the most appropriate option)

(1) should have   (2) will have

(3) have had   (4) are having

62. "Would you like some tea or coffee ?" the assistant asked me.
(Choose the correct reported form of the sentence)

(1) The assistant asked me whether I would like some tea or coffee.

(2) The assistant asked me whether would I like some tea or coffee.

(3) The assistant asked me would I like some tea or coffee.

(4) The assistant asked me if I would like some tea or coffee.

63. Someone has lit the fire.
(Choose the correct passive form of this sentence)

    (1)   You are requested to light the fire by someone.

    (2)   The fire has been lit by someone.

    (3)   The fire had been lit by someone.

    (4)   The fire was lit by someone.

64. Weather forecasts aren't very reliable and _____.

    (1)   nor should be   (2)   not ought to be

    (3)   nor will   (4)   never will be

65. The Princess was very generous. Everyone liked her for her _____ innocence.
(Choose the most appropriate word)

    (1) childish   (2) childhood   (3) childlike   (4) child

66. Neither of the girls _____ to collect their certificates.
(Choose the correct answer)

    (1) have come   (2) has come   (3) are coming   (4) has came

67. Rearrange the following words/phrases to make a meaningful sentence. Choose the correct sequence.

into the water / everyone crowded / to see / jump / around / him
   (A)   (B)   (C)   (D)   (E)   (F)

    (1) ABCDEF   (2) ABCFDE   (3) BEFCDA   (4) BECFDA

68. Rearrange the following words/phrases to make a meaningful sentence. Choose the correct sequence.

cold / a / it was / beautiful / day
(A) (B)   (C)   (D)   (E)

    (1) CBDAE   (2) DCBAE   (3) CBEDA   (4) CDABE

69. Answer by choosing the most appropriate option :
'To tie yourself in knots' means

    (1) to get into trouble.   (2) to get confused.

    (3) to lie.   (4) to get stuck between strangers.

70. The price of this mobile phone <u>is higher than yours</u>.

(Choose the edited form of the underlined words from the options given)

(1) are higher than yours

(2) is higher than you

(3) is higher than yourself

(4) is higher than that of yours

71. The young teacher was brimming with confidence.

(Identify the adjective in this sentence)

(1) young   (2) teacher

(3) was brimming   (4) confidence

72. I need to check _____ I have brought my umbrella.

(Choose the correct conjunction)

(1) provided   (2) whether

(3) lest   (4) until

73. She has now organised her documents in properly labelled files.

(Change to passive voice)

(1) Her documents were now being organised in properly labelled files.

(2) She had organised her documents then in properly labelled files.

(3) Her documents have now been organised in properly labelled files.

(4) Her documents had been organised then in properly labelled files.

74. It is late and _____ to get any sleep, I must go.

(1) if I am   (2) unless I am going

(3) if I am got   (4) should I

75. He acted _____ at the dinner table.

(1) seldom   (2) lately

(3) clumsily   (4) hardly

SECTION C

GENERAL SCIENCE

76. Naphthalene balls used to repel moths and insects are derived from

    (1) Petroleum   (2) Sugar   (3) Coal tar   (4) LPG

77. The slow process of conversion of dead vegetation into coal is called

    (1) Decomposition   (2) Evolution

    (3) Carbonification   (4) Carbonisation

78. Which amongst the following is a petroleum product which can be used for metalling of roads ?

    (1) Coke   (2) Bitumen   (3) Coal tar   (4) Coal

79. A person suffering from _____ should always cover his mouth and nose with a handkerchief while sneezing.

    (1) Common cold   (2) Cancer   (3) Asthma   (4) Malaria

80. Which of these traps air the most ?

    (1) Nylon   (2) Cotton   (3) Wool   (4) Polyester

81. Which non-metal is highly reactive and is used in making matchsticks ?

    (1) Phosphorus   (2) Sulphur

    (3) Carbon   (4) None of these

82. What is the product formed when a metal reacts with water ?

    (1) Metal oxide   (2) Metal hydroxide

    (3) Salt   (4) Acid

83. Which of the following pairs of organelles does *not* contain DNA ?

    (1) Mitochondria and Lysosomes   (2) Chloroplast and Vacuoles

    (3) Lysosomes and Vacuoles   (4) Nuclear envelope and Mitochondria

84. Which of the following features helps in distinguishing a plant cell from an animal cell ?

    (1) Cell wall   (2) Cell membrane

    (3) Mitochondria   (4) Nucleus

85. A set of terms pertaining to reproduction are given below. Choose the set that has an *incorrect* combination.

(1) Sperm, testis, sperm duct, penis

(2) Menstruation, egg, oviduct, uterus

(3) Sperm, oviduct, egg, uterus

(4) Ovulation, egg, oviduct, uterus

86. The larva of frog changes its form by a sudden and drastic process called

(1) Embryogenesis   (2) Hatching

(3) Layering   (4) Metamorphosis

87. Cloning is similar to which of the following modes of reproduction ?

(1) Sexual reproduction   (2) Cyst formation

(3) Asexual reproduction   (4) Both sexual and asexual reproduction

88. Which of the following correctly represents the value for the normal atmospheric pressure ?

(1) 75·3 Kilopascals   (2) 76 mm of mercury

(3) 101325 Pascals   (4) 76 cm of mercury

89. Loudness of sound is proportional to

(1) Square of the amplitude   (2) Amplitude

(3) Square of frequency   (4) Frequency

90. A man stands 10 m in front of a large plane mirror. How far must he walk before he is 5 m away from his image ?

(1) 5 m   (2) 7·5 m   (3) 10 m   (4) 12·5 m

91. Which of the following metals is used in electroplating to make metal objects appear shining on car surfaces ?

(1) Iron   (2) Copper   (3) Chromium   (4) Aluminium

92. What are the two gases mainly responsible for acid rain ?

(1) Sulphur dioxide and Nitrogen dioxide

(2) Carbon dioxide and Sulphur dioxide

(3) Nitrogen dioxide and Carbon dioxide

(4) Carbon dioxide and CFC

93. The process of conversion of sugar into alcohol is called
   (1) Fixation
   (2) Moulding
   (3) Fermentation
   (4) Degradation

94. Identify the correctly matched pair from the following :
   (1) Sunderban – Rhino
   (2) Ranthambore – Lion
   (3) Gir – Lion
   (4) Kaziranga – Sea Turtle

95. "Water harvesting" means
   (1) Collection of water from rivers
   (2) Harvesting of water from tubewells
   (3) Collection of rainwater in storage tanks
   (4) Collecting water from oceans

96. The process of zinc lamination (coating) on iron is called
   (1) Ionization
   (2) Electrolysis
   (3) Galvanization
   (4) None of these

97. Conditions for good electroplating are
   (1) High current density
   (2) Low temperature
   (3) High concentration of metal in electrolyte
   (4) All of these

98. Electroplating is the application of
   (1) Hydrolysis
   (2) Electrolysis
   (3) Crystallization
   (4) Recrystallization

99. An earthquake measuring 6 on the Richter scale is more powerful than another of magnitude 4 by
   (1) 3/2 times
   (2) 100 times
   (3) 2/3 times
   (4) 10 times

100. Rabi crops are
   (1) sown in winter and harvested in summer.
   (2) sown during rainy season and harvested in winter.
   (3) sown in summer and harvested in winter.
   (4) sown in rainy season and harvested in summer.

SECTION D

SOCIAL STUDIES

101. Which of the following is a Fundamental Right ?

    (1) Right to Work

    (2) Right to Freedom of Religion

    (3) Right to Property

    (4) Right to Protection of Forest and Wildlife

102. Dikus are

    (1) Outsiders   (2) Insiders

    (3) Children   (4) Senior citizens

103. 29th March 1857 is a significant date because

    (1) Mangal Pandey was hanged to death.

    (2) Mangal Pandey was sent to prison.

    (3) Mangal Pandey fled prison.

    (4) Mangal Pandey killed his officers.

104. Which of the following is *not* categorised under the Himalayan earthquakes ?

    (1) Uttarkashi Earthquake   (2) Kangra Earthquake

    (3) Bhuj Earthquake   (4) Delhi Earthquake

105. _____, a great scholar of Sanskrit, felt that Hinduism was oppressive towards women.

    (1) Sri Narayan Guru   (2) Raja Ram Mohan Roy

    (3) M.G. Ranade   (4) Pandita Ramabai

106. Burning of fossil fuels

    (1) Causes global warming   (2) Reduces global warming

    (3) Releases oxygen   (4) None of these

107. Which incident in the history of the Indian Freedom Movement made Tagore angry and made him renounce his knighthood ?

    (1) Partition of Bengal   (2) Jallianwala Bagh Massacre

    (3) Simon Commission   (4) Morley-Minto reforms

108. Where did Gandhiji launch the Mill-Workers' Strike of 1918 ?

    (1) South Africa   (2) Kheda

    (3) Andaman and Nicobar Islands   (4) Delhi

109. Which of the following was termed as "devilish and tyrannical" by Gandhiji and Jinnah ?

    (1) Ilbert Bill   (2) Jallianwala Bagh Massacre

    (3) Rowlatt Act   (4) Government of India Act, 1921

110. The Supreme Court of India has laid down specific requirements and procedures that the police and other agencies have to follow for the arrest, detention and interrogation of any person. These guidelines are also known as

    (1) M.M. Basu guidelines

    (2) D.K. Basu guidelines

    (3) Procedural guidelines

    (4) Rules of procedure for arrest guidelines

111. Name the Indian revolutionary who threw a bomb in the Central Legislative Assembly on 8th April, 1929.

    (1) Subhash Chandra Bose   (2) Bal Gangadhar Tilak

    (3) Bhagat Singh   (4) Chandrashekhar Azad

112. Who is the founder of the Khudai Khidmatgars, a powerful non-violent movement among the Pathans ?

    (1) Khan Abdul Ghaffar Khan   (2) Mohammed Ali Jinnah

    (3) Maulana Azad   (4) None of these

113. What is the meaning of the Japanese term 'Tsunami' ?

    (1) Ocean wave   (2) Tidal wave   (3) Current wave   (4) Harbour wave

114. Air pressure _____ as the height increases.

    (1) increases

    (2) decreases

    (3) first increases and then decreases

    (4) remains constant

115. Viticulture is the cultivation of

    (1) Grapes   (2) Fish   (3) Silkworms   (4) Apples

116. A motion of no-confidence against the government can be introduced in the _____ .

(1) Rajya Sabha   (2) Lok Sabha

(3) Both (1) and (2)   (4) Neither (1) nor (2)

117. Ministry of Human Resource Development was created in

(1) 1951   (2) 1953   (3) 1985   (4) 1987

118. Who were the European artists appointed by Muhammad Ali Khan of Arcot ?

(1) Tilly Kettle and George Willison

(2) Francis Hayman and William Daniell

(3) Thomas Daniell and William Daniell

(4) Joham Zoffany and Tilly Kettle

119. The temperate grasslands of South Africa are called the _____ .

(1) Velds   (2) Downs   (3) Prairies   (4) Pampas

120. Thinnest layer of the Earth is _____ .

(1) Crust   (2) Mantle   (3) Core   (4) None of these

121. Which of the following is an example of non-metallic mineral ?

(1) Bauxite   (2) Manganese   (3) Lead   (4) Mica

122. The emperor who ascended the throne at 13 years of age was _____ .

(1) Shah Jahan   (2) Akbar   (3) Humayun   (4) Jehangir

123. The number of seats reserved for Scheduled Tribes in the Lok Sabha is

(1) 35   (2) 37   (3) 79   (4) 47

124. What is referred to as the supreme law of land ?

(1) Parliament   (2) President

(3) Constitution   (4) Assembly

125. The breaking up and decaying of exposed rocks, by temperature changes, frost action, plants, animals and human activity is called

(1) Climate change   (2) Breaking

(3) Weathering   (4) Decay

126. What comes next in the series

7, 14, 42, 168, ?

(1) 1008   (2) 840   (3) 504   (4) 672

127. Michael is 14th from the left end in a row of 40 boys. What is his position (rank) from the right end ?

(1) 21st (2) 24th (3) 25th (4) 27th

128. P is the brother of Q and R. S is R's mother. T is P's father. Which of the following statements *cannot* be definitely true ?

(1) T is Q's father.

(2) S is P's mother.

(3) P is S's son.

(4) Q is T's son.

129. Choose the correct option in place of question mark (?) to complete the given series :

21, 25, 33, 49, 81, ?

(1) 145   (2) 132   (3) 113   (4) 101

130. 'Tiger' is related to 'Cub' in the same way as 'Elephant' is related to _____ .

Tiger : Cub : : Elephant : ?

(1) Chick   (2) Hatchling

(3) Joey   (4) Calf

131. If in the year 2012, January 1st is Sunday, then which day is the Indian Republic Day in the year 2012 ?

(1) Saturday   (2) Monday

(3) Thursday   (4) Friday

132. What is the angle between the hour hand and the minute hand when it is 5:10 pm ?

    (1)   150 degrees   (2)   120 degrees

    (3)   115 degrees   (4)   95 degrees

133. From his house, Ramesh goes 15 km to North. Then he turns West and covers 20 km. Then he turns South and covers 5 km. Finally he turns East and covers 30 km. Looking from his house, in which direction is he standing ?

    (1) North-west   (2) North-east   (3) South-east   (4) South-west

134. In a list, if Shikha is 15th from the upper end and 17th from the lower end, then find the total number of people in the list.

    (1) 41   (2) 33   (3) 31   (4) 32

135. Find the fourth proportional of 4, 5 and 16.

    (1) 25   (2) 16   (3) 30   (4) 20

136. 'Pitch' is related to 'Cricket' in the same way as 'Arena' is related to

    (1) Tennis   (2) Gymnastics

    (3) Badminton   (4) Wrestling

137. The time in the clock is quarter past twelve. If the hour hand points to the East, which is the direction opposite to the minute hand ?

    (1) South-west   (2) South   (3) West   (4) North

138. Five boys A, B, C, D and E are sitting in a row. A is to the right of B and E is to the left of B but to the right of C. A is to the left of D. Who is second from the left end ?

    (1) B   (2) E   (3) A   (4) C

139. A word has been given, followed by four other words, one of which can be formed by using the letters from the given word : PREPARATION.

Find the word.

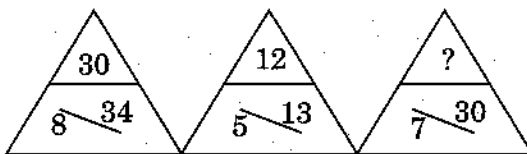   (1) PAMPER   (2) REPEAT   (3) PARTITION   (4) PARROT

140. Find the odd one that does *not* belong to the group.

    (1) KQNN   (2) DWFU   (3) EVHS   (4) HSKP

141. Five friends are standing in a row. Amar is taller than Sameer. Prabhat is taller than Umesh but not as tall as Sameer. Ashok is shorter than Umesh. Who among them is the shortest ?

    (1) Ashok   (2) Umesh

    (3) Sameer   (4) Amar

142. Insert the missing number.

```
   /\30          /\12          /\ ?
  /8\34/        /5\13/        /7\30/
```

    (1) 11   (2) 27   (3) 18   (4) 22

143. Choose the alternative that best represents a relationship similar to the one expressed in the original pair :

F : 216 : : L : ?

    (1) 1728   (2) 1700   (3) 1600   (4) 1723

144. In a certain code, 'TERMINAL' is written as 'NSFUMBOJ' and 'TOWERS' is written as 'XPUTSF'. How is 'MATE' written in the same code ?

    (1) FUBN   (2) UFNB   (3) BNFU   (4) BNDS

145. Arrange the following words as per order in the dictionary :

    1. Quilt   2. Quite   3. Queen   4. Queue

    (1) 1, 4, 2, 3   (2) 4, 3, 1, 2

    (3) 2, 3, 4, 1   (4) 3, 4, 1, 2

146. Choose the letter group that represents a relationship similar to the one expressed in the original pair of letter groups.

UNDERSTAND : DASENNTRDU : : RETIREMENT : ?

(1) TEEIENMRTR

(2) TNEMERITER

(3) EMENTRETIR

(4) ERITEREMTN

147. Complete the series :

3, 10, 101, ?

(1) 10101

(2) 10201

(3) 10202

(4) 11012

148. Select the related word from the given alternatives.

Hirakud : Mahanadi : : Tehri Dam : ?

(1) Damodar

(2) Bhagirathi

(3) Yamuna

(4) Sone

149. In the following question, select the missing number from the given series.

25	144	60
81	225	135
49	289	?

(1) 119

(2) 120

(3) 170

(4) 190

150. Fill with a suitable word.

Quarantined : Separated : : Radical : ?

(1) Unfriendly

(2) Bad

(3) Fundamental

(4) Dreary

22 – A

SPACE FOR ROUGH WORK

SPACE FOR ROUGH WORK

SPACE FOR ROUGH WORK