SSC CGL Examination

Grand Test

Questions: 200　　　　　　　　Time: 2 hours　　　　　　　　Max marks: 200

1. Find out the set among the four sets which is similar to the given set.
   Given set is (6:12:18)
   a) (12:24:36)　　　　b) (6:20:26)
   c) (30:36:42)　　　　d) (4:8:14)

2. Which one of the given responses would be a meaningful order of the following in ascending order?
   1. Sending　　　　　2. Encoding
   3. Receiving　　　　4. Decoding
   a) 4, 2, 1, 3　　　　b) 1, 2, 3, 4
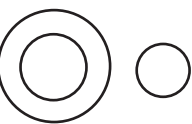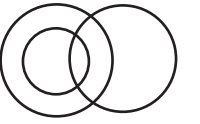   c) 2, 1, 3, 4　　　　d) 2, 4, 3, 1

3. Average the following words as per order in the English dictionary:
   1. Important　　　　2. Impart
   3. Improvise　　　　4. Improve
   a) 2, 1, 4, 3　　　　b) 3, 4, 1, 2
   c) 2, 1, 3, 4　　　　d) 1, 2, 3, 4

4. Which one set of letters when sequentially placed at the gaps in the given letter series shall complete it?
   bc_bca_cab_ab_a_ca
   a) cabac　　　　　b) abccb
   c) cabca　　　　　d) abcab

5. In the following letter series, how many B C N occur in such a way, that C is in the middle and B and N are on any one side?
   B C M X N C X N B X N C B N C B
   Y B C X N B C N A B O N M Z C B
   a) 2　　　b) 5　　　c) 3　　　d) 4

   Directions (Q. 6 to 8): A series is given, with one term missing. Choose the correct alternative from the given ones that will complete the series.

6. 7, 8, 11, 16, 23, ?
   a) 32　　b) 37　　c) 40　　d) 31

7. 3, 9, 6, 36, 30, ?
   a) 800　　b) 950　　c) 400　　d) 900

8. DKY, FJW, HIU, JHS, ?
   a) LFQ　　　　　b) KGR
   c) KFR　　　　　d) LFQ

9. A man said to a woman, "The only son of your borther, is the brother of my wife." How is that woman related to the wife of that man?
   a) Sister　　　　　b) Mother
   c) Grandmother　　d) Aunt

10. Select the correct venn diagram of the following relationship.
    Electron, Atom, Nucleus

    a) 　　b)

    c) 　　d)

11. Select the correct venn diagram of the following:
    Sons, Fathers, Daughters

    a) 　　b)

    c) 　　d)

    Directions (Q. 12-13): Select the correct group analogy.

12. Given set (2, 10, 28)
    a) (4, 20, 58)　　　　b) (7, 42, 49)
    c) (12, 24, 47)　　　d) (9, 27, 81)

13. Given set (63, 49, 35)
    a) (81, 63, 45)　　　b) (64, 40, 28)
    c) (72, 40, 24)　　　d) (72, 48, 24)

14. Find the correct option figure, when the given unfolded cube is folded.

a)   b)   c)   d)
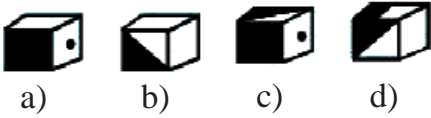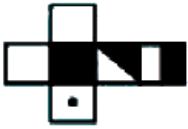
15. How many pairs are there in the word 'UNDERSTAND' which have as many letters between them as in the alphabet.
a) 5   b) 4   c) 6   d) 3

16. Find the number of triangles in the given figure
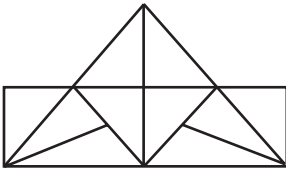
a) 19   b) 17   c) 14   d) 16

17. If K means X, H means ÷, M means + and A means – then, what is the value of

$$\frac{24K56H8M56A66}{12K28H4M28A33}$$

a) 3H1   b) 1H2   c) 3K1   d) 1M3

18. If (20 – 10) means 200; (8 ÷ 4) means 12; (6 × 2) means 4 and (12 + 3) means 4, then
100 – 10 × 1000 ÷ 1000 + 100 × 10 = ?
a) 1090   b) 0   c) 1900   d) 20

19. How many '3' are there in the following sequence which are neither preceded by 6 nor immediately followed by 9?
9366395937891639639
a)1   b) 2   c) 4
d) None of these

Directions (Q. 20 to 23): A series is given, with one term missing. Choose the correct alternative from the given ones that will complete the series.

20.

a) 35   b) 37   c) 45   d) 47

21.

9	6	8
5	8	4
7	4	?
11	2	7

a) 4   b) 7   c) 3   d) 6

22.

4	12	11	5
6	7	10	3
8	9	10	7
7	5	?	4

a) 12   b) 14   c) 13   d) 17

23.

6	18	15
3	2	5
4	3	?
8	27	9

a) 2   b) 11   c) 3   d) 6

24. Which one set of letters when sequentially placed at the gaps in the given letter series shall complete it?
a_ba_bb_ab_a
a) aabb   b) baaa   c) abab   d) baab

Directions: In question no.25, some statements are given, followed by two conclusions I and II. Your have to consider the statements to be true, even if they seem to be at variance from commonly known facts. You have to decide which of the given conclusions, if any follow from the given statements. Indicate your answer.

25. **Statement:**
There are many Indians who are honest. Mohan is an Indian.
conclusions:
I. Mohan is honest
II. Mohan is not honest
a) Only I follows
b) Neither I nor II follows
c) Only II follows
d) Both I and II follow

26. P, Q and R are educated, P, R & S are hard working. R, S & T are employed, P, Q, S & T are polite. Who is education, hardworking, polite but not employed?
a) P   b) Q   c) R   d) T

27. Rama travels 10 km towards the north, turns left and travels 4 km and then again turns right and covers another 5 km and then turns right and travels another 4 km. How far is he from the starting point?
a) 5 km   b) 10 km   c) 15 km   d) 19 km

28. A word given in capital letters is followed by four answer words. Out of these only one word can be formed by using the letters of the given words. Find out that word.
ENVIRONMENT
a) EMINENT   b) ENTRANCE
c) ENTERTAIN   d) MOVEMENT

29. From the given alternative words, select the word which cannot be formed using the letters of the given word.
PRESIDENTIAL
a) SLEEP   b) DENTAL
c) ARDENT   d) DIGITAL

30. In a gathering seven members are sitting in a row, 'C' is sitting left to 'B' but on the right to 'D'. 'A' is sitting right to 'B'. 'F' is sitting to 'E' but left to 'D'. 'H' is sitting left to 'E'. Find the person sitting in the middle.
a) C   b) D   c) E   d) F

31. In 60 families 30% of the families own a car each. 50% of the remaining family own a motor cycle each. Balance of families own a bicycle each. How many families own bicycle?
a) 12   b) 21   c) 18   d) 42

32. Select the missing number from the given responses
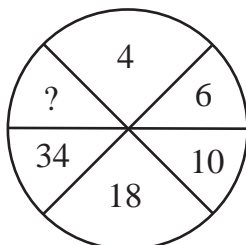
a) 2   b) 52   c) 66   d) 28

33. Identify the diagram that best represents the relationship among classes given below: Mammal, Dog and Bat

Directions (Q. 34 to 40): Select the related word/letters/number from the given alternatives.

34. 175:13: :108: ?
a) 9   b) 6   c) 7   d) 8

35. Flower : Petal : : Book : ?
a) Library   b) Page
c) Contents   d) Author

36. Doctor : Hospital ::?
a) Farmer : Village   b) Plumber : Wrench
c) Chef : Kitchen   d) Water : Reservoir

37. Patient : Hospital : : Car :?
a) Office   b) Hangar
c) House   d) Garage

38. COMPREHENSION : NOISNEHERPMOC : : BEAUTY : ?
a) UTYBEA   b) EAUTYB
c) AUTYBE   d) YTUAEB

39. BADC : XWCY : QPSR : ?
a) NMPO   b) TUVW
c) GHIJ   d) LMON

40. 64 :81 : : 8 : ?
a) 6   b) 7   c) 8   d) 9

Directions (Q. 41 to 42): Find the odd words/letters/number pair from the given alternatives.

41. a) KKLO   b) AABE
c) MMNO   d) GGHK

42. a) 24 – 76   b) 12 – 39

c) 16 – 52   d) 19 – 61

43. In a row of letters, a letter is 5ᵗʰ from left end and 12ᵗʰ from the right end. How many letters are there is a row?
    a) 15   b) 16   c) 17   d) 18

44. Pointing to a lady Simon said, "She is the daughter of the only sister of my father". How is lady related to Simon?
    a) Mother   b) Aunt
    c) Sister   d) Cousin sister

45. Select the related figure from the given alternatives:
    Question Figures:

    Answer Figures:

    (A)   (B)   (C)   (D)
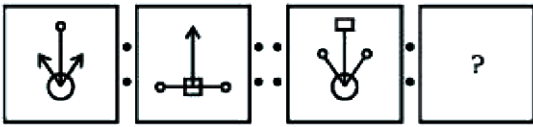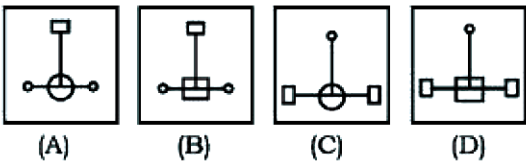
46. Find the odd figure from the given alternatives
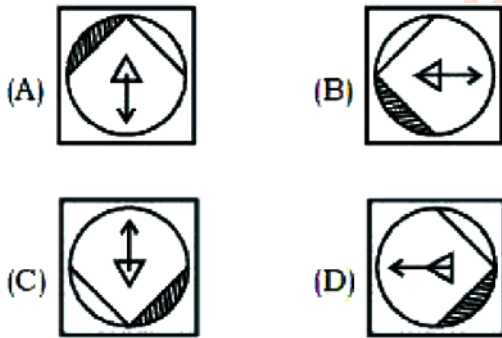
47. Choose the correct alternative from the given ones that will complete the series.
    Question Figures:

    Answer Figure:

    (A)   (B)   (C)   (D)
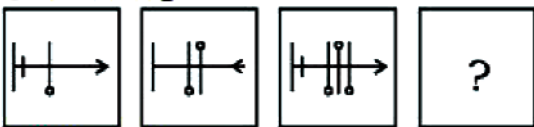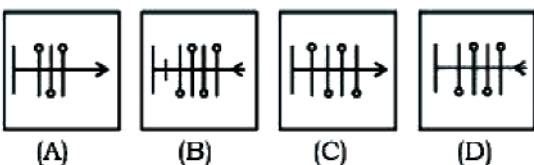
48. Which answer figure will complete the pattern in the question figure?
    Question Figure:

    Answer Figures:

    (A)   (B)   (C)   (D)
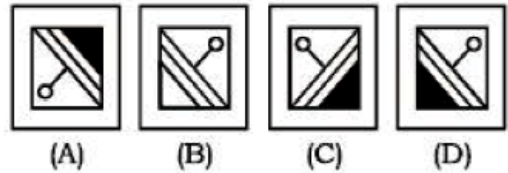
49. A piece of paper is folded and cut/punched as shown below in the question figures. From the given answer figures, indicate how it will appear when opened?
    Question Figures:

    Answer Figures:

    (a)   (b)   (c)   (d)
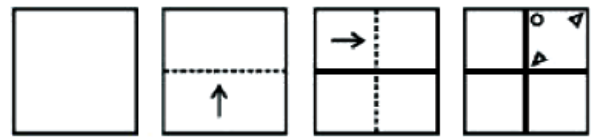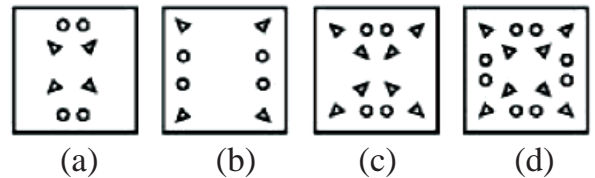
50. From the given answer figures, select the one in which the question figure is hidden/ embedded.
    Question Figure:

    Answer Figures:

    (A)   (B)   (C)   (D)
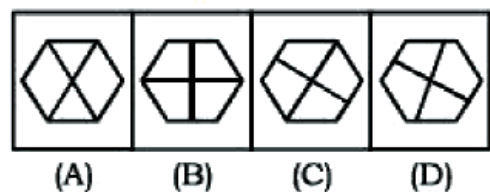
51. The main occupation of the Paleolithic people was
    a) Agriculture
    b) Animal husbandry
    c) Fishing
    d) Hunting and gathering food

52. Which of the following statements about Aurangzeb comes closer to the truth?
    a) He was the greatest Mughal emperor
    b) He worked for the glory of the Mughal dynasty
    c) He tried to transform India into an Islamic state
    d) He was a statesman

53. The first Buddhist Council was held in which of the following cities?
    a) Nalanda   b) Gaya
    c) Rajgriha   d) Bodh Gaya

54. The medieval ruler who was the first to establish a Ministry of Agriculture (Diwan-i-Kohi) was
    a) Alauddin Khalji
    b) Mohammad-bin-Tughlaq
    c) Sher Shah
    d) Akbar

55. Who among the following Indian rulers established embassies in foreign countries on modern lines?
    a) Haider Ali   b) Mir Qasim
    c) Shah Alam II   d) Tipu Sultan

56. Which among the following capitalists served as AICC Treasurer for a long time and went to jail in 1930?
    a) G.D. Birla
    b) Jamanalal Bajaj
    c) J.R.D. Tata
    d) Balchand Hirachand

57. Who was the responsible for the introduction of the Vernacular Press Act?
    a) Lord Mayo   b) Lord Lytton
    c) Lord Ripon   d) Lord Curzon

58. Which American President was a famous film/TV star before he became the President?
    a) J.F. Kennedy   b) Gerald Rs. Fond
    c) Richard Nixon   d) Ronald Regan

59. Match List I with List II

 | List-I | List-II |
    |--------|---------|
    | A. Third Schedule | 1. Powers of the municipalities |
    | B. Seventh Schedule | 2. Distribution of powers |
    | C. Ninth Schedule | 3. Oaths and Affirmations |
    | D. Twelfth Schedule | 4. Allocation of seats in the Council of States |
    | | 5. Land Reforms laws etc. |

	A	B	C	D
a)	3	2	5	1
b)	3	2	1	5
c)	3	1	2	5
d)	3	5	1	2

60. The Fundamental Rights of Indian citizens-
    a) can be suspended by the President during national emergency.
    b) can be suspended by the President during all types of emergencies.
    c) can be suspended by the President with the prior approval of the Supreme Court at any time.
    d) cannot be suspended under any condition.

61. Which one of the following is the highest civil servant of the Union Government?
    a) Principle Secreatry of the Prime Minister
    b) Cabinet Secretary
    c) Attorney General of India
    d) None of the above

62. Who heads the 13th Finance Commission?
    a) S.D.Mishra   b) K. Santhanam
    c) Vijay Kelkar   d) Subir Datta

63. The master plan of National Capital Region (NCR) was approved in
    a) 1959   b) 1962   c) 1981   d) 1996

64. Planning Commission is a:
    a) Statutory body
    b) Non-staturory body
    c) Constitutional body

d) Autonomous body

65. The mimimum distance between the Sun and the Earth occurs on-
    a) December 22   b) June 21
    c) September 22   d) January 3

66. Tectonic activity
    a) Breaks and bends the crustal rocks
    b) Forms and bends the crystal rocks
    c) Reshapes by bending the crustal
    d) None of these

67. Variations in duration of day and night are caused primarily because-
    a) The earth is sphericla in shape
    b) The earth is revolving around the sun
    c) The earth is rotating at varying speed
    d) The axis of the earth is inclined

68. Which of the following statements is correct?
    a) While most soft woods are deciduous, most hardwoods are ever green
    b) The tress of equatorial evergreen forests are mostly of softwood type
    c) While most softwoods occur in the tropical areas, the hardwoods are characteristically of temperate region
    d) While most hardwoods are either deciduous or evergreen, softwood is usually coniferous in characteristics

69. The shift of aluminum industry from the Dnipeper region to Siberia was made possible because of:
    a) Exploration of new bauxite sources
    b) Development of hydroelectricity
    c) New favourable market location
    d) Development of efficient transportation

70. The areas where monthly rainfall during October to december ranges 10 cm to 30 cm fall in:
    a) East west of tamil Nadu adn Andhra Pradesh
    b) Kerala and Karnataka
    c) Jammu and Kashmir
    d) Himachal Pradesh

71. The Law of Demand is based on-
    a) Consumer's preference
    b) Manufacturer's preference
    c) Seller's preference
    d) Supplier's preference

72. "Value added" is equal to-
    a) Output minus input
    b) Manufacturing profit
    c) Gross profit
    d) Capital gain

73. Value of a commodity expressed in terms of money is called
    a) Price   b) Demand
    c) Utility   d) Money value

74. According to the Census 2001, the density of population in India (per square km) is:
    a) 304   b) 324   c) 344   d) 364

75. Bharat Nirman Plan is associated with development of?
    a) Urban Infrastructure
    b) Rural Infrastructure
    c) Information Technology
    d) Bridges and Roads

76. A 'want' becomes a 'demand' only when it is backed by the-
    a) Ability to purchase
    b) Necessity to buy
    c) Desire to buy
    d) Utility of the product

77. In Indian currency, the One Rupee Note is issued under the signature of:
    a) Governor of Reserve Bank of India
    b) President of India
    c) Finance Secretary, Ministry of Finance, Government of India
    d) Finance Minister, Government of India

78. Which of the following organisations/ Banks has done awarded Nobel Prize also in the past ?
    a) Grameen Bank of Bangladesh
    b) CRY
    c) ASHA   d) NABARD

79. Tea plants thrive best in?
    a) Acidic soils with average rainfall above 150 cm and temperature between 20–30°C
    b) Aalkaline soils with average rainfall above 150 cm and temperature between 20–30°C
    c) Alkaline soils with rainfall above 150 cm and temperature between 15–20°C
    d) None of these

80. A disease that occurs periodically in a widespread area causing devastating damage to crop plants is referred to as:
    a) Endemic
    b) Epiphytotic
    c) Extensive
    d) Sporadic

81. An anaerobic bacterium produces a highly potent toxin a gram of which is enough to kill a million people, which one of the following is this bacterium?
    a) Bacillus bifidus
    b) Clostridium botulinum
    c) Clostridium butyricum
    d) Streptococcus faecium

82. From which part of plant yields opium?
    a) Leaves
    b) Fruit
    c) Flower
    d) Root

83. Gibberellins is first separated from
    a) Algae
    b) Fungi
    c) Bacteria
    d) Virus

84. Whale is grouped under mammal because
    a) They have lung, four chambered heart and vertebral column
    b) They have mammary gland, placenta and hair
    c) They have gill and placenta
    d) They have four chambered heart and lung

85. Centrioles are found in?
    a) Green plants
    b) Animals
    c) Bacteria and cynobateria
    d) Both b and c

86. A person climbing a hill bends forward in order to
    a) avoid slipping
    b) increase speed

    c) reduce fatigue
    d) increase stability

87. An aeroplane takes off from a runway at a uniform speed of 100m/s. What length of the runway is required to achieve the speed if the aeroplane starting from rest moves with a uniform acceleration of 10m/s^2
    a) 200m
    b) 250m
    c) 500 m
    d) 1000 m

88. SI unit of heat is?
    a) Calorie
    b) Joule
    c) Kilo calorie
    d) Kelvin

89. Structure of solids is investigated by using?
    a) cosmic rays
    b) X - rays
    c) γ - rays
    d) infrared radiation

90. Choose the correct statement:
    a) electric lines of force are closed curves while magnetic lines are not
    b) magnetic lines of force are closed curves while electric lines are not
    c) both electric and magnetic lines of force are closed curves.
    d) none of these

91. Through which mode of propagation, the radiowaves can be sent from one place to another?
    a) ground wave propagation
    b) sky wave propagation
    c) space wave propagation
    d) all of them

92. The M.K.S system was first introduced by
    a) Archimedes
    b) Eienstein
    c) Newton
    d) Giorgi

93. Water gas is a mixture of
    a) $CO + N_2$
    b) $CO + H_2$
    c) $CH_4 + CO$
    d) None

94. Which of the following process is used to remove reducible oxides from the metal?
    a) liquation
    b) cupellation
    c) poling
    d) electro refining

95. The chromatography technique was developed by
 a) Soxhlet b) Tswett
 c) Victor grignard d) Liebig

96. Which of the following is not a biodiversity hotspot?
 a) Succulent Karoo b) Wallacea
 c) Cerrado d) Antigua

97. The progressive series of changes that eventually produce a climax community on what was once a bare rocky island is an example of
 a) Primary succession
 b) Speciation
 c) Secondary succession
 d) Evolution

98. Which of the following newspapers has published its last international edition on October 14 after 125 years of its publishing history ?
 a) International Herald Tribune
 b) International Newyork Times
 c) The Dawn
 d) The Times

99. 7th East Asian Summit was held in _____ from September 25-27.
 a) Bali b) Phnom Penh
 c) Hanoi d) Brunei Darussalam

100. Name the India-born Pakistani folk singer, who died on November 3, 2013.
 a) Asaf Ali b) Reshma
 c) Safakat Ali d) Roshan Ara

101. A reduction of 10% in the price of a commodity enables a person to buy 25kg more for Rs. 225. The original price of the commodity per kg was
 a) Rs. 1.50 b) Rs. 2
 c) Rs. 1 d) Rs. 2.50

102. One type of liquid contains 20% water and the second type of liquid contains 35% of water. A glass is filled with 10 parts of first liquid and 4 parts of second liquid. The water in the new mixture in the glass is

 a) $24\frac{2}{7}\%$ b) 37%

 c) 46% d) $12\frac{1}{7}\%$

103. If x:y = 3:4 and y:z = 3:4, then $\frac{x+y+z}{3z}$ is equal to
 a) $\frac{37}{48}$ b) $\frac{13}{27}$ c) $\frac{1}{2}$ d) $\frac{73}{84}$

104. Mohan sold his watch at 10% loss. If he had sold it for Rs. 45 more, he would have made 5% profit. The selling price (in Rs.)of the watch was
 a) 270 b) 300 c) 900 d) 110

105. A vendor loses the selling price of 4 organes on selling 36 oranges. His loss percent is
 a) $11\frac{1}{2}\%$ b) $12\frac{1}{2}\%$
 c) 9% d) 10%

106. Successive discounts of 30% and 20% is equivalent to a single discount of
 a) 10% b) 50% c) 40% d) 44%

107. At the beginning of a partnership business, the capital of B was $\frac{3}{2}$ times that of A. After 8 months B withdraw $\frac{1}{2}$ of his capital and after 10 months. A withdraw $\frac{1}{4}$ th of his capital. At the end of the year, if the profit incurred is Rs. 53000, find the amount received byA.
 a) Rs. 23000 b) Rs. 30800
 c) Rs. 32000 d) Rs. 30000

108. If x,y, z are three sums of money such that y is the simple interest on x and z is the simple interest on y for same time and at the same rate of interest, then we have
 a) $y^2 = zx$ b) $z^2 = xy$
 c) $xyz = 1$ d) $x^2 = yz$

109. A and B can together finish a work in 30 days. They worked together for 20 days and then B left. After another 20 days, A finished the remaining work. The number of days in which B alone can finish the work is
a) 60   b) 50   c) 48   d) 54

110. If $\dfrac{xy}{x+y} = a, \dfrac{xz}{x+z} = b, \dfrac{yz}{y+z} = c$, where a, b, c are all non-zero numbers, then x equals to

a) $\dfrac{abc}{ab+bc+ac}$ b) $\dfrac{2abc}{ab+bc-ac}$

c) $\dfrac{2abc}{ab+ac-bc}$ d) $\dfrac{2abc}{ac+bc-ab}$

111. Between two consecutive years my incomes are in the ratio of 2:3 and expenses are in the ratio 5:9. If my income in the second year is Rs. 45,000 and my expenses in the first year is Rs. 25,000, my total savings for the two years is
a) Nill   b) Rs. 15,000
c) Rs. 10,000   d) Rs.5,000

112. The height of a conical tank is 50 cm and the diameter of its base is 48 cm. The cost of painting it from out side at the rate of Rs. 35 per square metre is
a) Rs. 15.50   b) Rs. 16
c) Rs. 16.50   d) Rs. 17

113. A cylindrical tank of diameter 35 cm is full of water. If 11 litres of water is drawn off, the water level in the tank will drop by:
$\left[\text{Use } \pi = \dfrac{22}{7} \right]$

a) 11.43 cm   b) 114.3 cm
c) 1.143 cm   d) 0.1143cm

114. The sum of three consecutive odd natural numbers is 147. Then the middle number is
a) 40   b) 48   c) 30   d) 49

115. Of the three numbers whose average is 60, the first is $\dfrac{1}{4}$ of the sum of the others. Then the

first number is?
a) 30   b) 36   c) 42   d) 45

116. A piece of work can be done by 5 men in 6 days while 10 women can do it in 5 days. In how many days can 5 women and 3 men do it?
a) 5   b) 6   c) 4   d) 8

117. Successive discounts of 10% and 30% are equivalent to a single discount of
a) 32%   b) 35%   c) 37%   d) 39%

118. Four bells ring at intervals of 4, 6, 8 and 14 seconds. They start ringing simultaneously at 12 O'clock. At what time will they again ring simultaneously?
a) 12 hrs 2 min 48 sec
b) 12 hrs 3 min
c) 12 hrs 3min 20 sec
d) 12 hrs 3 min 44 sec

119. Which of the following is the biggest?
$\sqrt[3]{4}, \sqrt[4]{6}, \sqrt[6]{15}$ and $\sqrt[12]{245}$

a) $\sqrt[12]{245}$ b) $\sqrt[6]{15}$

c) $\sqrt[4]{6}$ d) $\sqrt[3]{4}$

120. A tradesman marks his goods at 25% above the cost price. He allows his customers a discount of 10% on marked price. Find out his profit percent.
a) 12.2%   b) 12.5%
c) 12.4%   d) 15%

121. The side AB of a parallelogram ABCD is produced to E in such a way that BE = AB. DE intersects BC at Q. The point Q divides BC in the ratio
a) 2:3   b) 1:1   c) 2:1   d) 1:2

122. A conical vessel whose internal radius is 12 cm and height 50 cm is full of liquid. The contents are emptied into a cylindrical vessesl with radius (internal) 10 cm. The height to which the liquid rises in the cylindrical vessel is

a) 25 cm   b) 20 cm

c) 24 cm   d) 22 cm

123. A wire when bent in the form of a square encloses an area of 484 sq.cm. What will be the enclosed area when the same wire is bent in the form of a circle? $\left[\text{Take }\pi = \dfrac{22}{7}\right]$

a) 539 sq.cm   b) 462 sq.cm

c) 693 sq.cm   d) 616 sq.cm

124. If for non-zero x, $x^2 - 4x - 1 = 0$, the value of $x^2 + \dfrac{1}{x^2}$ is

a) 4   b) 10   c) 12   d) 18

125. The minimum value of $2\sin^2\theta + 3\cos^2\theta$ is

a) 3   b) 2   c) 1   d) 0

126. If p = 101, then the value of $\sqrt[3]{p(p^2 - 3p + 3) - 1}$ is

a) 103   b) 100   c) 1000   d) 102

127. If x and y are two positive real numbers and $x^{\frac{1}{3}} = y^{\frac{1}{4}}$, then which one of the following relations is true?

a) $x^{20} = y^{15}$ b) $x^3 = y^4$

c) $x^3 = y$ d) $x = y^4$

128. One flies a kite with a thread 150 metre long. If the thread of the kite makes an angle of 600 with the horizontal line, then the height of the kite from the ground (assuming the thread to be in a straight line) is

a) 50 metre   b) $75\sqrt{3}$ metre

c) $25\sqrt{3}$ metre   d) 80 metre

129. The simplified value of

$(\sec A - \cos A)^2 + (\csc A - \sin A)^2 - (\cot A - \tan A)^2$ is

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

130. In a regular polygon, the exterior and interior angles are in the ratio 1:4. The number of sides of the polygon is

a) 10   b) 12   c) 15   d) 16

131. If $\sec\theta - \csc\theta = 0$, then the value of $\tan\theta + \cot\theta$

a) 0   b) 1   c) – 1   d) 2

132. From the top of a tree of height 120 m the angle of depression of two boats in the same line with the foot of the tree and on the same side of it are 45° and 60° respectively. The distance between the boats is

a) $40(3 - \sqrt{3})\,\text{m}$ b) $40(3\sqrt{3} - 1)\,\text{m}$

c) $120(\sqrt{3} - 1)\,\text{m}$ d) $120(3 - \sqrt{3})\,\text{m}$

133. $(a + b - 2c)3 + (b + c - 2a)3 + (c + a - 2b)3$ is equal to

a) $(a + b - 2c)(b + c - 2a)(c + a - 2b)$

b) $2(a + b - 2c)(b + c - 2a)(c + a - 2b)$

c) $3(a + b - 2c)(b + c - 2a)(c + a - 2b)$

d) $-3(a + b - 2c)(b + c - 2a)(c + a - 2b)$

134. The sum of two numbers is 528, and their HCF is 33. How many pairs of such numbers can be?

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

135. A, B and C are three taps connected to a tank. A and B together can fill the tank in 6 hours, B and C together can fill it in 10 hours and A and C together can fit it in $7\dfrac{1}{2}$ hours. In how much time will C alone can fill the tank?

a) 10 hours   b) 12 hours

c) 20 hours   d) 30 hours

136. A and B walk from one corner of a rectangular field to the corner just diagonally opposite. A walks along the diagonal and B walks along the sides, reaching the finishing point together. If the ratio of the length and breadth of the field is 3:4, the ratio of their speeds is

a) 3:4   b) 4:3   c) 4:5   d) 5:7

Directions (137-140): Read the given table carefully and answer the questions that follows.

2004 Pre-election Survey

States	Number of Electorate	Number of Polling stations	Number of candidates	Number of seats available
Andhra Pradesh	27440879	29614	132	21
Assam	7099829	8311	48	6
Bihar	15058548	15261	146	11
Gujarat	33675054	36826	162	26
Karnataka	22617551	22999	93	15
Maharashtra	29376057	29432	210	24
Orissa	12942456	13741	54	11
Tripura	1978222	2372	12	2
Chhattisgarh	13719235	15669	102	11
Jharkhand	7835616	7748	85	6

137. Which state shows minimum number of average electorate per polling station?
a) Jharkhand
b) Bihar
c) Maharashtra
d) Orissa

138. If we draw a pie chart for seat available in the given states, then Gujarat and Orissa together subtends an angle of ___at the centre.
a) 96°   b) 100°   c) 104°   d) 108°

139. If the number of seats available per candidate are more than 13%, then the state is called proper state. How many states given in the chart are not proper states?
a) 4   b) 6   c) 5   d) 3

140. In Andhra and Karnataka, if the number of polling stations are increased by 15% and 16% respectively with respect to 2002. Election, while number of seats remained the same, then for these states combined what is the percentage change in the number of polling stations per seat in year 2004 with respect to that in year 2002?
a) 12%   b) 22%   c) 16%   d) 9%

141. If $\left[4 - \dfrac{5}{1 + \dfrac{1}{3 + \dfrac{1}{2 + \dfrac{1}{4}}}} \right]$ th part of a journey takes 10 minutes, then to complete $\dfrac{3}{5}$th of that journey, it will take
a) 36 minutes   b) 40 minutes
c) 45 minutes   d) 48 minutes

142. When n is divided by 6, the remainder is 4. When 2n is divided by 6, the remainder is
a) 1   b) 2   c) 0   d) 4

143. The value of $\dfrac{1}{20} + \dfrac{1}{30} + \dfrac{1}{42} + \dfrac{1}{56} + \dfrac{1}{72} + \dfrac{1}{90}$ is
a) $\dfrac{7}{20}$ b) $\dfrac{1}{10}$ c) $\dfrac{3}{5}$ d) $\dfrac{3}{20}$

144. Let $a = \dfrac{1}{2 - \sqrt{3}} + \dfrac{1}{3 - \sqrt{8}} + \dfrac{1}{4 - \sqrt{15}}$. Then we have?
a) a = 9   b) a < 18 but a ≠ 9
c) a > 18   d) a = 18

145. The smallest among the numbers 2^{250}, 3^{150}, 5^{100} and 4^{200} is?
a) 2^{250} b) 4^{200} c) 5^{100} d) 3^{150}

146. The greatest of the following numbers 0.16, $\sqrt{0.16}$, $(0.16)^2$, 0.04 is?
a) $(0.16)^2$ b) 0.16
c) $\sqrt{0.16}$ d) 0.04

147. If A : B = 3 : 4 and B : C = 6 : 5, then C : A is?
a) 9 : 8   b) 10 : 9
c) 9 : 10   d) 8 : 9

148. If a, b are rationals and

$a\sqrt{2} + b\sqrt{3} = \sqrt{98} + \sqrt{108} - \sqrt{48} - \sqrt{72}$ then
the values of a,b are respectively
a) 2, 3   b) 1, 2   c) 1, 3   d) 2, 1

149. The ratio of boys and girls in a college is 5:3. If 50 boys leave the college and 50 girls join the college, the ratio becomes 9:7. The number of boys in the college is
a) 600   b) 300   c) 400   d) 500

150. If a number is increased by 25% and the resulting number is decreased by 25% and the resulting number is decreased by 25%, then the percentage increase of decrease finally is
a) increased by 6%   b) no change

c) decreased by $6\frac{1}{4}\%$

d) increased by $6\frac{1}{4}\%$

Directions (Q. 151 to 152): Out of the four alternatives, choose the one which best expresses the meaning of the given word and mark it.

151. Thrifty
a) Compassionate   b) Greedy
c) Extravagant   d) Economical

152. Admonition
a) Warning   b) Admission
c) Hindrance   d) Reason

Directions (Q. 153 to 154): Choose the word opposite in meaning to the given word and mark it.

153. Stability
a) Inconsistency   b) Opposition
c) Carelessness   d) Disparity

154. Dynamic
a) Stout   b) Static
c) Stupid   d) Strange

Directions (Q. 155 to 156): Four words are given in each question, out of which only one word is correctly spelt. Find the correctly spelt word and mark it.

155. a) Colleague   b) Coleeague
c) Coligue   d) Coleague

156. a) Intarmitently   b) Intermitantly
c) Intarmittantly   d) Intermittently

Directions (Q. 157 to 159): Four alternatives are given for the Idiom/Phrase underlined in the sentence. Choose the alternative which best expresses the meaning of the Idiom/Phrase and mark it.

157. After getting a severe scolding from his mother, Raghu got down to business.
a) became businesslike
b) began to work seriously
c) joined his father's business
d) started a business

158. The young servant goes about with the old master.
a) goes around
b) tries to know more about
c) adjusts well
d) moves around

159. The mother was right in giving a piece of her mind to the daughter.
a) speaking cheerfully
b) speaking sadly
c) speaking sharply
d) speaking kindly

Directions (Q. 160 to 166): Four alternatives are given for the Idiom/Phrase underlined in the sentence. Choose the alternative which best expresses the meaning of the Idiom/Phrase and mark it.

160. Some people have a habit of wearing their heart on their sleeve.
a) saying something which is not to be taken seriously
b) exposing their innermost feelings to others
c) avoiding being friendly with others
d) always try to gain advantage over others

161. I raked my brains to solve this difficult problem.
a) I read a number of books
b) I consulted several people

c) I used my commonsense

d) I subjected my mind to hard thinking

162. He was a king who ruled his subjects <u>with a high hand</u>.
a) sympathetically   b) kindly
c) democratically   d) oppressively

163. It is matter of gratification for me that he has <u>turned a new leaf</u>.
a) begun a different mode of life
b) proved to be worthy person on his job
c) decided to use a different strategy to solve the problem
d) accepted the new job that was offered to him

164. He is a plain, simple and sincere man; he will always <u>call a spade a spade</u>.
a) Be outspoken in language
b) Help needy person
c) Stand by his friends and elatives
d) Sacrifice his life for others

165. It was such a strange affair that I could not <u>make head or tail of it</u>.
a) Tolerate it   b) Face it
c) Believe it   d) Understand it

166. He is temporarily in charge of the company and is trying to <u>feather his nest</u>.
a) bring order and discipline in the company
b) raise the image of the company
c) act for his own future benefits
d) diversity the products of the company

Directions (Q. 167-171): Pick out the word that is most nearly the same or opposite in meaning to the word given in bold. Whether the similar meaning is to be given or opposite is indicated by the letter 'S' for similar and 'O' for opposite in the bracket against each word.

167. **Profane** (O)
a) Impious   b) Praiseworthy
c) Intelligent   d) Respectful

168. **Germane** (O)
a) Irresponsible   b) Irrelevant
c) Illogical   d) Irrepressible

169. **Ruminate** (S)
a) Terminate   b) Abscond
c) Ponder   d) Concentrate

170. **Abate** (O)
a) Postpone   b) Diminish
c) Abandon   d) Increase

171. **Salubrious** (S)
a) Benign   b) Unhealthy
c) Tarnished   d) Resourceful

Directions (Q. 172 to 176): A part of the sentence is underlined. Below are given alternatives to the underlined part at (a), (b), (c) which may improve the sentence. Choose the correct alternaive. In case no improvement is needed your answer is (d).

172. The receptionist asked the patient "Who <u>recommended</u> you to Dr. Paulson?"
a) introduced   b) referred
c) alluded   d) No improvement

173. <u>Seeing that she is very tired</u>, I walked out of the room and let her sleep.
a) Seeing that she are very tired
b) Seeing that she was very tired
c) Seeing she is tired
d) No improvement

174. The demonstration <u>passed away</u> peacefully.
a) passed out   b) passed
c) passed on   d) No improvement

175. They have not spoken to each other <u>since</u> they quarrelled.
a) for   b) because
c) ever since   d) No improvement

176. I walked back home after the movie <u>yesterday night</u>.
a) last night   b) previous
c) that night   d) No improvement

Directions (Q. 177 to 186): In the following passage some of the words have been left out. Read the passages carefully and choose the correct answer to each question out of

the alternatives and fill in the blanks.

Whenever I 177 at the moon, my heart 178 with pleasure. I wish I had 179 to fly up to the moon. I know if I could 180 to become an 181, I would be able to go to the moon. Special equipment and a 182 training are required to go to the moon. I would have to wear a special 183 along with a gas-mask for 184. My space shuttle would be equipped with 185 cameras and other scientific 186.

177. a) looked   b) saw
     c) viewed   d) gaze

178. a) fills   b) filled
     c) field   d) feels

179. a) hands   b) wings
     c) legs   d) feelers

180. a) grow up   b) mow
     c) blow   d) show

181. a) astrology   b) astronomy
     c) astronaut   d) aristocrat

182. a) special   b) ordinary
     c) common   d) natural

183. a) trousers   b) spacecraft
     c) space-suit   d) space formula

184. a) breadth   b) breathing
     c) bathing   d) breathe

185. a) sensitive   b) touchy
     c) primitive   d) decorative

186. a) accessory   b) things
     c) intuition   d) gadgets

Directions (Q. 187 to 191): Sentences are given with blanks to be filled in with an appropriate word(s). Four alternatives are suggested for each question. Choose the correct alternative out of the four and indicate it .

187. The bird's voice was speaking _____all lying under stars.

a) to   b) for   c) at   d) in

188. ____my food and my repose were salted.
     a) None of   b) All of
     c) Both   d) Both of

189. India will _____ arch rival Pakistan in the finals.
     a) takes after   b) looks after
     c) taken back   d) taken on

190. The shepherd was looking after the _____ of sheep.
     a) crew   b) gang
     c) fleet   d) flock

191. Many of us believe that science is something modern_____ the truth is otherwise.
     a) unless   b) though
     c) if   d) as if

Directions (Q. 192 to 193): out of the four alternatives, choose the one which best expresses the meaning of the given word.

192. VIVACIOUS
     a) Lively   b) Venomous
     c) Clear   d) Superior

193. Staunch
     a) Loyal   b) Benign
     c) Good   d) Wise

Directions (Q. 194 to 195): Choose the word opposite in meaning to the given word and mark it.

194. Modesty
     a) Honesty   b) Vanity
     c) Originality   d) Variety

195. Spite
     a) Spleen   b) Venom
     c) Spirit   d) Affection

Directions (Q. 196 to 200): In the following questions, some of the sentences have errors and some have none. Find out which part of a sentence has an error. The letter of that part is your answer. If there is no error, your

answer is (d). i.e. No error.

196. It being a rainy day (a)/ I will decide to skip work (b)/ any stary at home. (c)/ No error.(d)

197. Another baffling change (a)/that I noticed in him nowdays (b)/is that he avoids speaking tome. (c)/ No error.(d)

198. I had asked him (a)/how he could go out (b)/if it started raining. (c)/ No error.(d)

199. Eighty-five-thousand rupees (a)/is a large sum of money (b)/to earn in a month.(c)/ No error.(d)

200. His voice shook with emotion, (a)/and it was so funny to hear him, (b)/that all we longed to lough and to cry. (c)/ No error.(d)

KEY

1. A	2. C	3. A	4. B	5. C
6. A	7. D	8. A	9. D	10. C
11. C	12. A	13. A	14. C	15. C
16. A	17. B	18. B	19. B	20. B
21. C	22.	23. C	24. D	25. B
26. A	27. C	28. A	29. D	30. B
31. B	32. C	33. A	34. A	35. B
36. C	37. D	38. D	39. A	40. D
41. C	42. B	43. B	44. D	45. D
46. D	47. D	48. D	49. C	50. A
51. D	52. C	53. C	54. B	55. D
56. B	57. B	58. D	59. A	60. A
61. B	62. C	63. B	64. B	65. D
66. A	67. D	68. D	69. B	70. C
71. A	72. A	73. D	74. B	75. B
76. A	77. C	78. A	79. A	80. B
81. B	82. B	83. B	84. B	85. B
86. D	87. C	88. B	89. B	90. B
91. D	92. D	93. A	94. C	95. B
96. D	97. B	98. A	99. A	100. B

101. C	102. A	103. A	104. B	105. D
106. D	107. A	108. A	109. A	110. D
111. D	112. C	113. A	114. D	115. B
116. A	117. C	118. A	119. D	120. B
121. B	122. C	123. D	124. D	125. B
126. B	127. A	128. B	129. C	130. A
131. D	132. A	133. C	134. A	135. D
136. D	137. D	138. B	139. C	140. C
141. D	142. B	143. D	144. B	145. C
146. C	147. B	148. B	149. D	150. C
151. D	152. A	153. A	154. B	155. A
156. D	157. B	158. C	159. C	160. B
161. D	162. D	163. B	164. A	165. D
166. C	167. A	168. B	169. C	170. D
171. B	172. B	173. B	174. B	175. C
176. A	177. D	178. A	179. B	180. A
181. C	182. A	183. C	184. B	185. A
186. D	187. A	188. C	189. D	190. D
191. B	192. A	193. A	194. B	195. D
196. B	197. B	198. B	199. B	200. C

Prepared by
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