<table>
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<th>प्रश्न पत्र / QUESTION PAPER</th>
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<td>वैकल्पिक प्रकार परीक्षण/OBJECTIVE(MCQ) TYPE TEST</td>
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**समय/Time**: 2.30 AM to 4.30 PM  
**अवधि/Duration**: 2 Hrs  
**अधिकारिक अंक/Maximum Marks**: 100

**निर्देश**: आपने उत्तर लिखने से पहले कृपया निम्न प्रश्न निर्देशों को सवालनवीकरण करें:  
1. OMR उत्तर पत्रिका में, उत्तर लिखने के बाद, आपको OMR उत्तर पत्रिका के लिए ध्यान दें, अगर उत्तर पत्रिका के छोर पर अंकित किए गए हैं, OMR का पूरी तरह से अनिवार्य का माना जाएगा। अगर उत्तर पत्रिका में अपने उत्तरों का अनुसरण करने के लिए OMR उत्तर पत्रिका के छोर पर अंकित किए गए हैं, OMR का पूरी तरह से अनिवार्य का माना जाएगा। 
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1. A number is divisible by 5 if its unit digit is
   A) 2 or 0
   B) 10 or 0
   C) 5 or 0
   D) None of these

2. If there be a loss of 11% in selling an article at Rs. 178, at what price should it be sold to earn a profit of 11%?
   A) 220
   B) 222
   C) 225
   D) 320

3. If one side of a square is 35m, then the area is....
   A) 1252m²
   B) 1225m²
   C) 1252m
   D) 1225m

4. What should be the values of a and b for which 64x³ - 9ax² + 108x - b will be a perfect cube.
   A) a=48 and b=729
   B) a=40 and b=725
   C) a=42 and b=792
   D) a=46 and b=720

5. If HCF of 60 and 168 is 12, what is the LCM
   A) 480
   B) 240
   C) 420
   D) 840

6. What is the sum of one digit prime numbers?
   A) 11
   B) 13
   C) 15
   D) 17

7. The mathematician who gave the term "Algorithm"?
   A) Euclid
   B) Gold Bach
   C) Khwarizmi
   D) Gauss

8. If cot A = 12/5, then the value of (sin A + cos A) + cosec A is:
   A) 13/5
   B) 17/5
   C) 14/5
   D) 1

9. The sum of first five multiple of 3 is
   A) 45
   B) 65
   C) 75
   D) 90

10. Which term of the A.P. 92, 88, 84, 80, ... is 0?
    A) 23
    B) 32
    C) 22
    D) 24

11. From the following which condition is not possible for the congruence of two triangles?
    A) ASA
    B) AAS
    C) AAA
    D) SSS

12. In ΔPOR, <P=60°, <Q=50°. Which side of the triangle is the longest?
    A) PQ
    B) PR
    C) QR
    D) None

13. Find the sum and product of the zeroes of polynomial x² - 51.
    A) 0, 51
    B) 0, -51
    C) 2, 51
    D) -2, 51

14. What is the symbol of π?
    A) e
    B) ∞
    C) π
    D) Ω

15. How many diagonals are there in a quadrilateral?
    A) 2
    B) 3
    C) 4
    D) No diagonals

16. The speed of a car is 60km/hr. Distance covered in 1 ½ hours is....
    A) 60km
    B) 65km
    C) 70km
    D) 75km
17. How many vertices are there in a cube?
   A) 5     B) 6     C) 7     D) 8

18. An acute angle is
   A) 90 degree     B) Less than 90 degree     C) More than 90 degree     D) None of these

19. Complete the sequence 13, 16, ……, 22.
   A) 17     B) 18     C) 19     D) 20

20. How many factors are there in 71?
   A) 1     B) 2     C) 3     D) 4

21. The value of \( \tan 1^\circ \cdot \tan 2^\circ \cdot \tan 3^\circ \cdots \cdot \tan 89^\circ \) is
   A) 0     B) 1     C) 2     D) 1/2

22. What is the average value of 25, 20, 23 and 22?
   A) 20     B) 21.5     C) 22.5     D) 24

23. Find the zeroes of the quadratic polynomial \( x^2 + 7x + 12 \)
   A) -2, -5     B) -3, -4     C) 2, 5     D) 3, 4

24. Which is the largest number in \( 15/17, 15/18, 15/19, 15/21 \)?
   A) 15/17     B) 15/18     C) 15/19     D) 15/21

25. Two numbers are in ratio 4:5. If the sum of the numbers is 135, find the numbers
   A) 60 and 75     B) 50 and 65     C) 70 and 95     D) 65 and 75

26. Name a triangle whose two angles are equal.
   A) Right angle triangle     B) Isosceles triangle     C) Scalene triangle     D) None of these

27. How many digit answer we will get when we add 99 and 1?
   A) 1     B) 3     C) 99     D) 100

28. \( (1) + (1+1) + (1+1+1) + \cdots + (1+1+1+\cdots n-1 \text{ times}) = \cdots \)
   A) \( n(n+1)/2 \)     B) \( (n-1)n/2 \)     C) \( n^2 \)     D) \( n \)

29. What is the unit of volume?
   A) Square unit     B) Cubic unit     C) One unit     D) None of these

30. 1010 gram = …… Kg.
   A) 10.10 kg     B) 101.0 kg     C) 1.01 kg     D) 1.001 kg

31. Average of three person’s age is 9. Find the sum of their age?
   A) 18     B) 21     C) 24     D) 27

32. What is \( -10 - (-6) \) equals to?
   A) 16^2     B) -16^3     C) -4     D) 4
33. Arrange the following numbers in order from least to greatest:
-14.6, 159, 1.07, -1.295, 24.6
A) 1.07, -1.295, -14.6, 24.6, 159
B) -14.6, -1.295, 1.07, 24.6, 159
C) 1.07, -14.6, 159, 24.6, -1.295
D) -1.295, -14.6, 1.07, 24.6, 159

34. A long rope has to be cut to make 23 small pieces. If it is doubled folded to start with how many times does need to be cut?
A) 9
B) 23
C) 11
D) 12

35. A river flows west to east and on the way turns left and go in a semi-circle round a hillock, and then turns left at right-angles. In what direction is the river finally flowing?
A) North
B) South
C) East
D) West

36. A clock seen through a mirror, shows quarter past three. What is the correct time shown by the clock?
A) 3 : 15
B) 8 : 45
C) 9 : 15
D) 9 : 45

37. Complete the series: 4, 6, 12, 14, 28, 30, (?)
A) 60
B) 62
C) 64
D) 32

38. Three bells toll at the interval of 10, 15 and 24 minutes. All the three begin to toll together at 8 AM. At what time they will again toll together?
A) 10:45 A.M.
B) 10 A.M.
C) 9:25 A.M.
D) 8:50 A.M.

39. Each edge of a cube is increased by 50%. What will be the percent increase in its volume?
A) 50%
B) 150%
C) 133 1/3%
D) 237 1/2%

40. The diagonals of a rhombus are 30cm and 40cm long. Find its side.
A) 25 cm
B) 120 cm
C) 100 cm
D) 200 cm

41. The relation between focal length f and radius of the curvature R for a spherical mirror is
A) f = 2R
B) f = R/2
C) f = R/4
D) f = R²

42. Which of the following is not an oxidizing agent?
A) Oxygen
B) Conc. Sulphuric acid
C) Chlorine
D) Hydrogen

43. Flow of energy in an ecosystem is always
A) Unidirectional
B) Bidirectional
C) Multidirectional
D) None of these

44. Which of the following is not an inert gas?
A) He
B) Ar
C) Br
D) Rn

45. A galvanometer is used to
A) Measure potential difference
B) Detect direction of current
C) Measure amount of current flowing
D) Measure electric power of the circuit

46. Who prepared urea for the first time by heating ammonium cyanate?
A) Wohler
B) Lavoisier
C) Fuller
D) Haber

47. Vermiform appendix is an example of
A) Analogous organ
B) Vestigial organ
C) Homologous organ
D) Analytic organ.
48. Mendeleev's periodic table is based on the
   A) Atomic weight  B) Atomic number
   C) Atomic radius  D) Atomic volume

49. Which of the following are primary colours?
   A) Red, blue, yellow  B) Red, green, violet
   C) Yellow, green, blue  D) Red, green, blue

50. Gustatory receptors are specialized in detecting
   A) Taste  B) Light
   C) Smell  D) Touch

51. For a plane mirror, the value of focal length is
   A) Anything between zero to infinity
   B) Infinity
   C) Zero
   D) \( f = \frac{1}{R} \)

52. Water contains more \( H^+ \) ions than \( OH^- \) ions. In this case, water is
   A) Neutral  B) Basic
   C) Acidic  D) Cannot say

53. Depletion of ozone layer is mainly due to
   A) Methane  B) Carbon dioxide
   C) Chlorofluorocarbon  D) Nitrogen

54. Which phenomenon is responsible for the twinkling of stars?
   A) Atmosphere reflection  B) Atmosphere refraction
   C) Reflection  D) Total internal reflection

55. Loss of electron is called
   A) Reduction
   B) Oxidation
   C) Can be oxidation or reduction
   D) None of these

56. Which type of variation is inherited?
   A) Somatic variation  B) Germinal variation
   C) Both somatic & germinal  D) None of these

57. The SI unit of electric charge is----
   A) Volts (V)  B) Ampere (A)
   C) Coulomb (C)  D) Tesla (T)

58. Bauxite is an ore of which metal
   A) Iron  B) Aluminum
   C) Copper  D) Tin

59. _______ is located behind a convex mirror.
   A) The focal point  B) A ray
   C) A real image  D) The object

60. Which of the following is an abiotic component
   A) Plants  B) Animals
   C) Soil  D) Micro organism

61. Which non-metallic element is in liquid form?
   A) Carbon  B) Hydrogen
   C) Bromine  D) Phosphorus

62. Villi are present in
   A) Pancreas  B) Stomach
   C) Small intestine  D) Oesophagus

63. Light travels fastest through which of the following materials?
   A) Diamond  B) Water
   C) Glass  D) Air
64. In general, salts
   A) Are ionic compounds   B) Contain hydrogen ions   C) Contain hydroxide ions   D) Turn litmus red

65. The magnetic field inside the solenoid is
   A) Non-uniform   B) Variable   C) Same at all points   D) Zero

66. Tropic movements are
   A) In response to light   B) In response to gravity   C) Non-directional   D) Unidirectional

67. What is the time difference between actual sunset and apparent sunset?
   A) 2 sec   B) 20 sec   C) 2 min   D) 20 min

68. The core of electromagnet is
   A) Soft iron   B) Nickel   C) Steel   D) Copper

69. Which one of the following organisms can live without oxygen
   A) Amoeba   B) Sheep   C) Yeast   D) Leech

70. Which of the following division is unique to India?
   A) Gender division   B) Caste division   C) Economic division   D) Religious division

71. Who among the following said that religion can never be separated from politics?
   A) Acharya Vinobha Bhave   B) Mahatma Gandhi   C) Sarojini Naidu   D) Rajendra Prasad

72. When did the earliest factories come up in England?
   A) 1720s   B) 1730s   C) 1740s   D) 1450s

73. What was the fly shuttle used for
   A) Washing   B) Weaving   C) Drying   D) Sowing

74. Which of the following is known as “finishing center”?
   A) London   B) Manchester   C) Liverpool   D) Amsterdam

75. What was ‘Young Italy’?
   A) Vision of Italy   B) Secret society   C) National Anthem of Italy   D) None of these

76. When did Mahatma Gandhi return to India from South Africa?
   A) 1913   B) 1919   C) 1915   D) 1921

77. What does the term ‘picket’ refer to?
   A) Stealing from shops   B) Import of goods   C) Protest by blocking shop entrances   D) Boycott of clothes and goods

78. The resources which are found everywhere are known as
   A) Ubiquitous   B) Non-renewable resources   C) Human made resources   D) None of these
79. The following is not a factor of soil formation
A) Organic matter  B) Time  C) Soil texture  D) All of the above

80. The process in which bare ground between plants is covered with a layer of organic matter like straw, is called
A) Mulching  B) Contour carrying  C) Shelter belts  D) Intercropping

81. Fresh water accounts for only ______ percent.
A) 1.7  B) 2.7  C) 3.7  D) 4.7

82. A naturally occurring substance that has a definite chemical composition is a
A) Mineral  B) Compound  C) Metal  D) Rock

83. Minerals can be extracted by
A) Mining  B) Drilling  C) Quarrying  D) All of the above

84. __________is a leading producer of copper.
A) Chile  B) Peru  C) Argentina  D) Brazil

85. Kolar ______ has deposits of gold in India.
A) Tamil Nadu  B) Kerala  C) Andhra Pradesh  D) Karnataka

86. Petroleum means
A) Land oil  B) Black oil  C) Shell oil  D) Rock oil

87. The party "Forward Block" was formed by
A) Bhagat Singh  B) Sardar Ballav Bhai Patel  C) Mahatma Gandhi  D) Subhash Chandra Bose

88. Who declares the financial emergency?
A) President  B) Prime Minister  C) Finance Minister  D) None of the above

89. The idea of a Constituent Assembly to form a Constitution of India was first mooted by?

90. Under the Pin Code System, the number of postal zones in India are?
A) 7  B) 8  C) 6  D) 9

91. Rajya Sabha can delay the Finance Bill sent for its consideration by the Lok Sabha for a maximum period of:
A) Seven days  B) One month  C) One year  D) Fourteen days

92. Which article explain the appointment of Ad Hoc Judge?
A) 121  B) 125  C) 126  D) 127

93. Who is the first Indian woman to be nominated to the International Olympics Committee (IOC)
A) Nita Ambani  B) Marry Kom  C) P.T. Usha  D) Ashwini Nachappa

94. World's largest radio telescope was built in
A) China  B) USA  C) South Korea  D) Brazil
95. Which company has recently launched an instant messaging mobile app named Allo
   A) Apple       B) Google       C) IBM       D) Yahoo

96. In which state is the world’s largest solar power plant setup
   A) Tamil Nadu  B) Karnataka  C) Kerala    D) Madhya Pradesh

97. Indian Air Force Day is observed on
   A) 1st October  B) 3rd October  C) 8th October  D) 10th October

98. India’s communication satellite GSAT-18 was successfully launched from
   A) Balasore     B) French Guiana  C) Abdul Kalam Island  D) Sriharikota

99. Paul Beatty is the first ______ author to win the Man Booker Prize.
   A) UK       B) USA       C) Russia     D) Germany

100. Which animal is represented as the official Mascot for the 2018 FIFA World Cup in Russia
     A) Wolf     B) Zebra     C) Tiger     D) Horse