All India Science Teachers' Association, West Bengal
SCIENCE APTITUDE AND TALENT SEARCH TEST - 2023

Time : 1 hr. 45 min.   **Full Marks : 60**

Class V

INSTRUCTIONS:

1) Write your name, class, name of school and roll number both at left and right side on the answer sheet. 2) In the question paper you will find four probable answers: a), b), c) and d) against each question. Find out which one of the answers is correct or the best. There are four circles on the answer sheet corresponding to each question below a), b), c) and d). Now mark the circle below the letter of selected answer by putting a cross mark distinctly with a ball pen. If c) is the correct answer, you are to mark $\bigcirc\bigcirc\otimes\bigcirc$. **3) 1 mark will be awarded for each correct answer and 1 mark will be deducted for 3 wrong answers.** 4) Don't write anything on the question paper. Don't mark answers on the question paper. Submit the answer sheet only after the examination. 5) You may use additional blank sheet for any rough work, if necessary. 6) Do not waste time for any question which appears difficult to you, better try next question. If you consider first answer to be wrong, blacken it like ● and put $\otimes$ on correct answer.

1. Organic fertilisers are made from
   a) skins of vegetables, excreta of domestic animals etc.
   b) skins of vegetables, chemicals containing potassium etc.
   c) excreta of domestic animals, chemicals containing phosphorus etc.
   d) skins of vegetables, chemicals containing nitrogen etc.

2. Where there is no refrigerator, people try to preserve fish by
   a) drying it in the sun   b) adding salt to it
   c) adding water to it   d) both a) and b)

3. Soil loses fertility when
   a) it is tilled periodically.
   b) it gets rain and sunrays periodically.
   c) it is covered by pieces of polythene.
   d) excreta of domestic animals are left on it.

4. Which characteristic of trees does not help to improve the environment ?

   a) Absorbing oxygen for respiration

   b) Photosynthesis by leaves of trees

   c) Reducing soil erosion

   d) Collecting dust on the leaves

5. Use of wheel is a great booster of human civilization. Correct chronological sequence of the substances used to make wheels is

   a) rubber→wood→metal   b) metal→rubber→wood

   c) rubber→metal→wood   d) wood→metal→rubber

6. Thickness of our skin differs at different parts of the body. Skin of places arranged from thick to thin is

   a) hand palm, foot palm, hand   b) foot palm, hand palm, hand

   c) hand, foot palm, hand palm   d) foot palm, hand, hand palm

7. The bone from waist to knee is called

   a) humerus   b) tibia   c) ulna   d) femur

8. Bones are held between bone-joints by

   a) cartilage   b) tendon   c) ligament   d) both b) and c)

9. Blood is pumped at the body through the tubes called

   a) artery   b) heart   c) vein   d) lungs

10. Full form of O.R.S. is

    a) Oral Rehydration Syrup   b) Oral Reactivation Solution

    c) Oral Rehydration Solution   d) Oral Reactivating Syrup

11. Size of particles arranged from small to large are in

    a) clayey soil, cement, sandy soil b) cement, clayey soil, sandy soil

    c) clayey soil, sandy soil, cement d) sandy soil, clayey soil, cement

12. Nutrients are provided to plants by organic fertilizers slowly as those

    a) contain small percentage of nutrients

    b) need to be broken to get the nutrients

    c) need help of microorganisms of soil to decompose

    d) all of a) to c)

13. Roots of trees in hilly areas

  a) are very short.

  b) crack hills and penetrate inside it.

  c) surrounds the hill surface.

  d) all of a) to c).

14. Ability of water bodies to purify water increases when

  a) water-volume is large.

  b) water-volume is small.

  c) more oxygen is dissolved in water.

  d) both a) and c).

15. Chemical to be added to water bodies to purify water very fast is

  a) potassium permanganate   b) potassium sulphate

  c) calcium oxide   d) sodium chloride

16. At the beginning of rainy season, rain water is slightly

  a) alkaline   b) acidic

  c) salty   d) may be either a) or b)

17. The animal not domesticated among goose, cow, parrot and goat is

  a) goose   b) cow   c) parrot   d) goat

18. An aquatic invertebrate is

  a) rohu fish   b) frog   c) magur fish   d) prawn

19. A non-polluting cooking gadget(s) is (are)

  a) solar cooker   b) wooden chullah

  c) electric heater   d) both b) and c)

20. Production of the crop that needs more water is

  a) jute   b) paddy   c) pulses   d) cauliflower

21. In the process of cultivation, power tiller has ended use of

  a) spade   b) sickle   c) plough   d) both b) and c)

22. We eat only seed parts of

  a) mango, banana, paddy, watermelon

  b) paddy, wheat, mustard, coconut

  c) mango, wheat, mustard, coconut

  d) both b) and c)

23. We eat only pulp and no seed of
    a) mango, banana, paddy, watermelon
    b) paddy, wheat, mustard, coconut
    c) mango, custard apple, mustard, coconut
    d) banana, apple, watermelon, custard apple

24. Use of chemical fertilisers and insecticides in paddy cultivation has
    a) reduced production of fishes in paddy field.
    b) reduced use of water in cultivation.
    c) increased taste and quality of paddy.
    d) both b) and c).

25. Trees of forests help in increasing
    a) wind speed   b) rain   c) animals   d) both b) and c)

26. Charcoal refers to incomplete combustion of
    a) coal   b) wood   c) brick   d) both a) and c)

27. Two very harmful substances in smoke of coal oven are
    a) carbon-di-oxide and small particles of coal.
    b) carbon-di-oxide and carbon-mono-oxide.
    c) carbon-mono-oxide and small particles of coal.
    d) carbon-di-oxide and oxides of nitrogen.

28. Which one of the following is called a non-conventional energy?
    a) solar electricity   b) thermal power
    c) electricity from diesel   d) both a) and c)

29. Boats sail on water using power of
    a) wind   b) flow of water
    c) human muscle   d) all of a) to c)

30. Environment friendly vehicle(s) is (are)
    a) motor cycle   b) cycle
    c) auto-rickshaw   d) all of a) to c)

31. Sum of greatest and smallest four digit numbers is
    a) 10000   b) 10999   c) 99991   d) 11000

32. The digit at unit's place of the number $254 \times 253 + 387 \times 387$ is
    a) 9   b) 0   c) 8   d) 3

33. Digits of a three digit number are consecutive from cent's place to unit's place and in a descending order. If the sum of the digits be 21, the number is

   a) 321   b) 876   c) 678   d) 123

34. Instead of writing 87065 you wrote eight thousand seven hundred sixty-five. How less did you write?

   a) 78300   b) 78290   c) 79010   d) 79300

35. Correct one of the following is

   a) $\dfrac{5}{6} < \dfrac{7}{8}$ b) $\dfrac{9}{11} < \dfrac{7}{13}$ c) $\dfrac{12}{19} = \dfrac{24}{37}$ d) $\dfrac{6}{15} > \dfrac{8}{13}$

36. L.C.M. and H.C.F. of two mutually prime numbers are respectively

   a) their product and 1.

   b) 1 and their product.

   c) twice the bigger number and half the smaller number.

   d) twice their product and their difference.

37. A five digit number has 8 at the position of highest place value. The number is divided by 8. Number of digits in the quotient is

   a) 3   b) 4   c) 5   d) 6

38. A person lived 24000 days. His (her) age in nearest years at the time of his(her) death was

   a) 58   b) 66   c) 68   d) 73

39. H.C.F. of 20, 60 and 100 is

   a) 2   b) 10   c) 20   d) 300

40. L.C.M. of 25, 40 and 60 is

   a) 600   b) 400   c) 300   d) 200

41. Simplified value of $\dfrac{5}{8} + \dfrac{11}{16} + \dfrac{15}{32}$ is

   a) $1\dfrac{7}{8}$ b) $1\dfrac{15}{16}$ c) $1\dfrac{27}{64}$ d) $1\dfrac{25}{32}$

42. Simplified value of $3\dfrac{7}{18} - 1\dfrac{13}{36}$ is

   a) $2\dfrac{1}{18}$ b) $2\dfrac{1}{36}$ c) $1\dfrac{17}{18}$ d) $3\dfrac{7}{36}$

43. A number is multiplied by 7. Now 108 is subtracted from the product and we get the original number. The product is

a) 18   b) 98   c) 126   d) 119

44. Rabin spends eight month's income in nine months. If his total savings in nine months be Rs. 36000/-, his monthly income is

a) Rs.31500   b) Rs.32000/-   c) Rs.34000/-   d)Rs.36000/-

45. A fraction has 11 in the denominator. Values of numerator for which the fraction will be closest to 0.5 are

a) 2, 3   b) 3, 4   c) 5, 6   d) 7, 8

46. Two fractions are $\dfrac{7}{9}$ and $\dfrac{7}{15}$. If their denominators are made equal to 45, the numerators will be respectively

a) 17 and 27   b) 35 and 21   c) 21 and 35   d) 28 and 42

47. Sum of the present ages of Ela, her elder sister and mother is 71 years. Sum of their ages (in years) after 8 years will be

a) 95   b) 78   c) 87   d) 102

48. A rectangle has length 36 m. and breadth 25 m. Its area and perimeter are respectively

a) 900 sq. m. and 122 sq. m.   b) 122 m. and 900 sq. m.

c) 900 m. and 122 sq.m.   d) 900 sq. m. and 122 m.

49. A girl of height 1.53m cleared 1.82 m in high jump. Compared to her height she jumped

a) 0.71 cm more   b) 71 cm less

c) 29 cm more   d) 0.29 cm less

50. The digit at thousand's place in the result of subtracting 70982 from 100000 is

a) 0   b) 9   c) 2   d) 1

51. Each side of a square is of length 34 cm. A diagonal of the square is drawn. Area of one of the triangles in the square is

a) 578 sq cm.   b) 289 sq cm.   c) 272 sq cm.   d) 20 sq cm.

52. You and your classmates stand in 6 rows and each row has 6 students. Number of your classmates is

a) 12   b) 31   c) 35   d) 36

53. A vegetable garden has 22 rows of papaya plants where each row has 22 plants. All except 30 of the plants have fruits. Number of papaya plants having fruits is

a) 404   b) 440   c) 444   d) 454

54. You walked 2.450 km in the morning and 2.050 km in the evening. You walked a total distance of

a) 2. 655 km   b) 3.950 km   c) 4.500 km   d) 5.500 km

55. The angle between hour hand and minute hand of a clock at 11 a.m. in degrees is

a) 20   b) 30   c) 40   d) 45

56. You walked along the circumference of a circular path. You completed three-fourth of the circumference. The angle subtended at the centre by your initial and final positions in degrees is

a) 270   b) 260   c) 250   d) 240

57-58. A mobile number starts and ends both with 8. There are 3 sixes, 2 fours, 2 ones and 1 zero in the number.

57. Sum of the digits of the mobile number is

a) 34   b) 0   c) 44   d) 48

58. Product of the digits of the mobile number is

a) 221184   b) 0   c) 192   d) 27648

59. Seven copies of a book costs Rs. 147. The cost of two copies of such books is

a) Rs. 47   b) Rs. 45   c) Rs. 44   d) Rs. 42

60. There are sticks of lengths (in cm) 2, 3, 4, 5, 6, 7, 8. Three sticks are taken at a time to form triangles. It was not possible to form a triangle when the chosen sticks are of length (in cm)

a) 2, 3, 4   b) 2, 4, 5   c) 3, 4, 6   d) 2, 4, 7

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