

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

Time : 1 hr. 45 min.

Full Marks : 60

Class VI

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 \bullet and put \otimes on correct answer.

1. Heavy shower washes the leaves of trees. This helps trees to grow faster as the rain water
 - a) deposits the dirt of the leaves at the base of the trees.
 - b) cleans leaves to become cooler.
 - c) cleans leaves to perform photosynthesis better.
 - d) both b) and c)
2. Vehicles are to be arranged as pollution per person least to most. Correct arrangement is
 - a) train, cycle, bus, motor car
 - b) cycle, train, motor car, bus
 - c) motor car, cycle, bus, train
 - d) cycle, train, bus, motor car
3. The earth, the moon and the sun are denoted by E, M and S. At the time of solar eclipse, their positions will be respectively
 - a) EMS
 - b) MES
 - c) ESM
 - d) MSE

4. The number of rotations completed by the moon about the earth by the time the earth completes one rotation about the sun is
a) 29 b) 12 c) 13 d) 27
5. Time required by light to come to us from the star Proxima Centaury, nearest to us except the sun, is about
a) 4 days b) 4 weeks c) 4 months d) 4 years
6. The group of animals that stay in trees is
a) bat, monkey, house lizard. b) monkey, squirrel, cockroach.
c) weaver bird, dog, parrot. d) weaver bird, parrot, bat.
7. The group of substances we get from trees directly is
a) cinchona, cinnamon, cotton b) cinnamon, poha, honey
c) cinnamon, sooji, honey d) poha, honey, sooji
8. A group of herbivorous animals is
a) fox, house lizard, cow b) cow, goat, deer
c) snake, goat, spider d) snake, frog, house lizard
9. Liver is attacked by the parasites of
a) amoebiosis b) tuberculosis c) malaria d) dengue
10. From our head lice eat
a) blood b) tissue c) hair d) dandruff
11. A group of substances obtained from animal source is
a) silk, milk, pulse b) paper, sugar, egg
c) rice, fish chop, pulse d) silk, milk, honey
12. Slowest of the processes mentioned below is
a) germination of paddy seeds.
b) formation of coal.
c) developing a white layer on lime water.
d) drying of wet garments.
13. A pair of substances which do not conduct heat well is
a) iron and aluminum. b) copper and wood.
c) wood and bakelite. d) bakelite and iron.

14. The pair of incidents representing chemical change are
- burning of wood and magnetization of iron.
 - dissolving sugar in water and vaporization of water.
 - making curd from milk and melting of ice.
 - making curd from milk and burning of wood.
15. Both physical and chemical changes occur simultaneously when
- colour of cut fruits changes.
 - burns a candle.
 - water of ponds evaporates.
 - halogen tablet dissolves in water.
- 16-17. Four identical plates of steel, brass, plastic and paper are kept under the sun for a few minutes.
16. Light is reflected best by the plate made of
- steel
 - brass
 - plastic
 - paper
17. Change of shape will be maximum for the plate made of
- steel
 - brass
 - plastic
 - paper
18. A pair of non-metals is
- sodium and charcoal.
 - oxygen and hydrogen.
 - calcium and chromium.
 - charcoal and calcium.
19. Atoms present in methane and ammonia are respectively
- carbon, hydrogen and nitrogen, hydrogen.
 - carbon, nitrogen and hydrogen, phosphorus.
 - hydrogen, nitrogen and hydrogen, carbon.
 - hydrogen, nitrogen and carbon, phosphorus.
20. Inside the earth, temperature and pressure are respectively too
- low and high
 - high and low
 - high and high
 - low and low
21. Name of an ore of aluminum is
- hematite
 - alumina
 - mineral
 - bauxite
22. In SI system, unit of temperature is
- Candela
 - Kelvin
 - Centigrade
 - Ampere

23. Height of a table is nearly
 a) 25 mm b) 25 cm c) 25 inch d) 25 ft
24. A heavy ball is hanging from one end of a spring. The other end of the spring is fixed at a place. If the ball is pulled down and then released, the ball will
 a) go to its original position slowly.
 b) go to its original position very fast.
 c) oscillate about its original position.
 d) be at the place where it is pulled down.
25. An arrow is released from a stretched bow. This is a case of transformation of
 a) kinetic energy to potential energy
 b) potential energy to kinetic energy
 c) kinetic energy to wind energy
 d) wind energy to kinetic energy
26. A ball falls on a floor from a height of 10 m and it rebounds by 5 m. As the ball drops, its kinetic energy is converted into
 a) sound energy b) heat energy
 c) kinetic energy d) all of a) to c)
27. Sharp nails penetrate in wood better than blunt nails when struck by hammer with identical forces. It happens because, in the case of sharp nail
 a) effective force is greater. b) force is more directed.
 c) pressure is greater. d) pressure is more directed.
28. Consider the two groups mentioned below :

Group A	Group B
1. Red blood-corpuses	i. helps in blood clotting.
2. White blood-corpuses	ii. carries oxygen to different parts of the body.
3. Platelets	iii. fights against attack from external germs.

Correct match for the groups above is

- a) A1→Bi, A2→Bii, A3→Biii
 b) A1→Bii, A2→Bi, A3→Biii

- c) A1→Biii, A2→Bi, A3→Bii
 d) A1→Bii, A2→Biii, A3→Bi
29. More than three bones are joined at
 a) wrist b) elbow c) knee d) shoulder
30. Corners of nails break due to deficiency of
 a) vitamin B b) vitamin C c) calcium d) iron
31. Name of the angle between hour hand and minute hand of a clock at 6 AM is
 a) acute angle b) right angle c) obtuse angle d) straight angle
32. Number of time(s) the hour hand and the minute hand of a clock will be in right angle between 6 a.m. and 9 a.m. of the same day is
 a) 0 b) 1 c) 3 d) 6
33. In $\triangle ABC$, $\angle A$ is an acute angle. The other two angles are of equal measure. They may be
 a) obtuse angle b) acute angle
 c) right angle d) straight angle
34. Chords drawn in a circle have lengths (in cm) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. Length of radius of the circle may be (in cm)
 a) 1 b) 3 c) 5 d) 7
35. 18 men have equal ability to work. They can complete a work in 10 days. All of them start work. But 9 of them stop work after working for 2 days and others continue to work. The total number of days required to complete the work is
 a) 18 b) 16 c) 15 d) 12
36. 3 hours are required to reach a distance when travelling at 50 Km/hr. The number of hours needed to reach the same distance travelling at 15 Km/hr is
 a) 15 b) 10 c) 9 d) 6
37. Place values of 7 and 8 in the number 3075683 are respectively
 a) 70000 and 80 b) 7000 and 800
 c) 700 and 80 d) 7 and 8

38. The difference between the place values of 4 and 5 in the number 12345678 is
 a) 45000 b) 400005000 c) 35000 d) 350000
39. In roman numbers like XXIX, CI, LIV, LXII etc. I is used to indicate
 a) 1 more to the preceding b) 1 less of the following
 c) one hundred d) either of a) and b)
40. The sum of x and 6 is multiplied to the difference of y and 8. It is expressed as
 a) $x + 6y - 8$ b) $(x + 6)(y - 8)$
 c) $(x - 6)(y - 8)$ d) $(x - 6)(y + 8)$
41. Total number of wheels of m bicycles and n auto rickshaws is
 a) $2m \times 3n$ b) $3m \times 2n$ c) $2m + 3n$ d) $3m + 2n$
42. Multiplying $\frac{2}{7}$ by 4, we get
 a) $\frac{1}{14}$ b) $\frac{8}{7}$ c) $\frac{2}{11}$ d) $\frac{2}{3}$
43. A rectangle has length x m. and breadth y m. Its perimeter and area are respectively
 a) $2(x + y)$ m. and xy m. b) $2(x + y)$ sq. m. and xy sq. m.
 c) $2(x + y)$ m. and xy sq. m. d) $(x + y)$ m. and $2xy$ sq. m.
44. 15% students of your class take part in sit and draw competition. If they are 9 in number, the number of students in the class is
 a) 40 b) 50 c) 60 d) 70
45. Reciprocal of $\left(\frac{3}{5} \div \frac{1}{10}\right)$
 a) 6 b) $\frac{1}{6}$ c) $\frac{3}{50}$ d) $\frac{50}{3}$
46. A bamboo has length 8.94 m. Its 2.22 m is cut aside. The remaining part is divided into 6 equal parts. Each part will have length (in m.)
 a) 1.12 b) 1.22 c) 2.12 d) 2.22

47. A four digit number is formed by the digits 7, 3, 8, 6. When the digits at hundred's and ten's place are interchanged, the number is increased by 180. These two digits are respectively
- a) 7 and 3 b) 7 and 6 c) 8 and 6
d) 6 and 8
48. A number is formed by three digits p, q and r. The number may be
- a) pqr b) $100q - 10p + r$
c) $100q + 10p - r$ d) $100q + 10p + r$
49. You spent 25% and 15% of your money respectively to buy books and bag respectively. You spent Rs.75 more for buying books than buying bag. Then initially you had Rs.
- a) 300 b) 450 c) 675 d) 750
50. Number of surfaces of a hollow cylinder open at both ends is
- a) 1 b) 2 c) 3 d) 4
51. H.C.F and L.C.M. of two numbers are 5 and 1275. If one of the numbers be 85, the other number is
- a) 75 b) 105 c) 155 d) 255
- 52-53.** If a, b, c, d, e, f represent 5, 4, 3, 2, 1, 0 respectively, then
52. value of the product abcdef is
- a) 120 b) 1 c) 2 d) 0
53. value of $a - b - c - d - e + f$ is
- a) -5 b) 5 c) -15 d) 15
54. Length and breadth of a rectangle are 45 hectometer and 2.5 meter respectively. Its area is
- a) 1.125 sq. hectometer b) 11.25 sq. meter
c) 67.5 sq meter d) 375 sq. hectometer
55. A three-digit number remains a three digit number after changing one of its digits. The maximum increase or the maximum decrease of the number is
- a) 9 b) 900 c) 800 d) 100

56. Angle between minute hand and hour hand of a clock is 120° .
The time may be
a) 4pm b) 6 pm c) 8 pm d) both a) and c)
57. The smallest number to be subtracted (or added) from (or to) 1000 to get a perfect square number is
a) 1 b) 24 c) 25 d) 89
58. Perfect square number among the following is
a) 729 b) 365 c) 178 d) all of a) to c)
59. A circular rim has equally spaced 12 holes. If two sticks are placed from the centre of the rim to two consecutive holes, the angle between the two sticks in degrees will be
a) 25 b) 30 c) 35 d) 40
60. If both the digits of a two digit number are increased by 3, the number will increase by
a) 3 b) 30 c) 33 d) 63
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