SCIENCE

1. Which of the following is a non-living thing?
   a) Tree b) Dog
   c) Stone d) Fish
2. Which group of organisms can make their own food using sunlight?
   a) Animals b) Fungi
   c) Plants d) Bacteria
3. Which of the following animals lays eggs?
   a) Cat b) Cow
   c) Hen d) Dog
4. Which of the following is an example of an aquatic plant?
   a) Neem b) Rose
   c) Lotus d) Mango
5. The presence of backbone is a characteristic of:
   a) Invertebrates b) Vertebrates
   c) Fungi d) Amoeba
6. Which of the following can live both in water and on land?
   a) Fish b) Frog
   c) Snake d) Whale
7. Mosses and ferns are examples of:
   a) Flowering plants b) Non-flowering plants
   c) Fungi d) Algae
8. Which of these is not a characteristic of living organisms?
   a) Growth b) Reproduction
   c) Respiration d) Shining
9. Which device helps us to see very tiny objects that cannot be seen with naked eyes?
   a) Telescope b) Microscope
   c) Binoculars d) Camera
10. The instrument used to measure temperature is called:
    a) Barometer b) Thermometer
    c) Hygrometer d) Manometer
11. What type of plants are herbs?
    (1) Tall plants with single woody stems.
    (2) Small plants with soft, green stems.
    (3) Medium-sized plants with woody stems.
    (4) Plants with thick stems to store water.
12. The place where living beings live is called their
    (1) Adaptation (2) Habitat
    (3) Habit (4) Movement
13. Which of the following are characteristics of living beings?
    (i) Respiration (ii) Reproduction
    (iii) Adaptation (iv) Excretion
    Choose the correct answer:
    (1) (ii) and (iv) only
    (2) (i) and (ii) only
    (3) (i), (ii) and (iv) only
    (4) (i), (ii), (iii) and (iv)
14. Which of the following combinations of features would you observe in grass?
    (1) Reticulate venation and tap root
    (2) Parallel venation and fibrous root
    (3) Reticulate venation and fibrous root
    (4) Parallel venation and tap root
15. Which adaptation helps camels survive in the desert?
    (1) Long legs and wide hooves
    (2) Thick fur
    (3) Ability to fly
    (4) Short legs

Rough Work

16. Which of the following is NOT a habitat?
(1) Forest (2) Desert
(3) Tree (4) Ocean

17. Which animals live in both land and water?
(1) Reptiles (2) Birds
(3) Mammals (4) Amphibians

18. What is the primary function of iodine in our diet?
(1) Strengthens bones
(2) Improves vision
(3) Prevents goitre
(4) Supports digestion

19. Why do plants grow towards the light?
(1) To escape darkness
(2) To get more sunlight for photosynthesis
(3) To find more water
(4) To produce oxygen

20. What is metamorphosis?
(1) A plant growing towards the light
(2) A caterpillar turning into a butterfly
(3) Water boiling to become steam
(4) Seeds sprouting into plants

21. Blue-black colour with iodine solution on a sample is used to test the presence of:
(1) Protein (2) Starch
(3) Fat and Oil (4) Water

22. Which of the following foods is rich in proteins?
(1) Apples (2) Almonds
(3) Milk (4) Rice

23. Which of the following is a primary source of energy for the body?
(1) Proteins (2) Fats
(3) Carbohydrates (4) Vitamins

24. What is used to test for the presence of starch in foo1d?
(1) Iodine solution
(2) Copper sulphate
(3) Caustic soda
(4) Litmus paper

25. Read the following statements about diseases.
(i) They are caused by germs.
(ii) They are caused due to a lack of nutrients in our diet.
(iii) They can be passed on to another person through contact.
(iv) They can be prevented by taking a balanced diet.
Which pair of statements best describes a deficiency disease?
(1) (1) and (ii)
(2) (ii) and (iil)
(3) (ii) and (iv)
(4) (i) and (iii)

26. Science is best described as:
(1) Memorising facts and figures
(2) A way of thinking, observing, and doing things to understand the world
(3) Reading about experiments without doing them
(4) Learning only about stars and planets

27. Which of the following is NOT an example of the scientific method in daily life?
(1) Checking why a pen is not writing
(2) Finding out why a tyre is flat
(3) Cooking dal and noticing it spills
(4) Playing a video game for fun

Rough Work

28. While cooking, your mother notices that the milk has spilled over although she had filled only half the vessel. Which of the following BEST explains this situation using the scientific method?
(1) Milk was too hot, so it spilled.
(2) Milk boils and produces steam which pushes the milk upwards and causes it to spill.
(3) The vessel was not cleaned properly.
(4) The stove flame was blue in colour.

29. A student observes that his torch is not working. He thinks the bulb might be fused, but after replacing it, the torch still doesn't work. Which step of the scientific method does this situation represent?
(1) Observation
(3) Testing the guess
(2) Guessing a possible answer (hypothesis)
(4) Analysing results and forming new questions

30. The first step in the scientific method is:
(1) Making a guess
(3) Analysing results
(2) Observing something interesting or not understood
(4) Performing experiments

31. Which of the following is a standard unit of measurement?
(1) Hand span (2) Footstep
(3) Metre (4) Cubit

32. Which of the following instruments is used to measure the length of a pencil?
(1) Measuring tape (2) Ruler/Scale
(3) Vernier caliper (4) Stopwatch

33. 1 kilometre =
(1) 1000 metres (2) 100 metres
(3) 10000 metres (4) 10 metres

34. Which of the following shows rectilinear motion?
(1) Blades of a fan
(2) A train moving on a straight track
(3) Earth rotating on its axis
(4) Pendulum

35. The motion of a swing is an example of:
(1) Circular motion
(2) Periodic motion
(3) Oscillatory motion
(4) Rectilinear motion

36. Which statement is correct about magnetic poles?
(1) Like poles attract each other
(2) Unlike poles repel each other
(3) Like poles repel and unlike poles attract
(4) Magnets have only one pole

37. The direction of a freely suspended bar magnet is:
(1) East-West (2) North-South
(3) Finding directions (4) Finding height

38. Magnetic compass is used for:
(1) Measuring speed
(2) Measuring distance
(3) Random
(4) None of these

39. Which of the following is used in cranes to lift heavy iron pieces?
(1) Natural magnet (2) Bar magnet
(3) Electromagnet (4) Horseshoe magnet

Rough Work

40. Electricity is produced by:
    a) Magnet b) Generator
    c) Screw d) Lever

Maths

41. Ekta is asked to collect data for size of shoes of students in her class VI.
    Her findings are recorded in the manner shown below: 5, 7, 8, 4, 6, 6, 7, 5, 8, 4, 6, 5, 7, 6, 5, 6, 5, 5, 6, 8, 6,7
    Prepare a table using tally marks, and find how many students worn the shoes of size 7?
    (1)2 (2)3
    (3)4 (4)5

42. Following table shows the number of students of a college in different years.

Years	2003	2004	2005	2006	2007	2008
Number of Students	400	535	620	472	600	680

    Total number of students in last three years is
    (1) 1500 (2) 1627
    (3) 1752 (4) 1812

43. Students are decorating a rectangular bulletin board that measures $8\frac{1}{4}$ m by $4\frac{2}{3}$ m What is the area of the ATO bulletin board in square meters?
    (1) $25\frac{5}{6}$ sq .m (2) $30\frac{1}{3}$ sq .m
    (3) $32\frac{1}{6}$ sq .m (4) $38\frac{1}{2}$ sq .m

44. Using the digits 1, 2, 3, 4 without repetition, the greatest 4-digit number that can be made is
    (1) 4312 (2) 4321
    (3) 4213 (4) 4231

45. Make the greatest 4-digit number by using any one digit of 2, 6, 5 twice.
    (1) 6652 (2) 6625
    (3) 6256 (4) 6265

46. Arrange the following numbers in descending order: 4000,8500,50600,7235
    (1) 50600,8500,7235,4000
    (2) 50600,8500,4000,7235
    (3) 50600,7235,8500,4000
    (4) 50600,7235,4000,8500

47. Which of the following numbers comes just before 1000?
    (1) 999 (2) 1001
    (3) 990 (4) 909

48. 1 billion. how many million?
    (1) 10 (2) 100
    (3) 1000 (4) 10000

49. Which of the following rounding off is correct?
    (1) 841 - 800 (2) 286 - 200
    (3) 9870 - 9800 (4) 87 - 80

50. In Roman numerals L stands for
    (1) 100 (2) 50
    (3) 70 (4) 90

51. The HCF of two numbers is 11 and their LCM is 7700. If one of the numbers is 275, then the other
    (1) 279 (2) 283
    (3) 308 (4) 318

Rough Work

52. Product of two co-prime numbers is 117. Their LCM should be
(1) 1 (2) 117
(3) equal to their HCF (4) cannot be calculated.

53. The least number of 5-digits which is exactly divisible by 16, 24, 36 and 54 is
(1) 10638 2) 10368
(3) 13068 (4) 10845

54. Find the greatest number of 5-digits which when divided by 3,5,8 and 12 will have 2 as remainder
(1) 99999 (2) 99958
(3) 99960 (4) 99962

55. Which of the following is a pair of co-prime?
(1) (55, 57) (2) (46, 50)
(3) (72, 78) (4) none of these

56. What least value should be given to *so that the number 653*47 is divisible by 11?
(1) 9 (2) 6
(3) 7 (4) 1

57. 12345 × 15-2469 × 25 =
(1) 1,43,350 (2) 1,24,460
(3) 1,22,420 (4) 1,23,450

58. The difference of smallest 3-digit number and its predecessor is
(1) 1 (2) 0
(3) 2 (4) 100

59. The successor of the smallest counting number is:
(1) 0 (2) 1
(3) 2 (4) 3

60. The population of a village is 1500. If 489 are men and 472 are women, find the number of children.
(1) 549 (2) 439
(3) 559 (4) 539

61. Whole number are closed under the operation
(1) addition
(2) subtraction
(3) multiplication
(4) addition and multiplication

62. Which of the following statements is CORRECT?
(1) successor of a number can be obtained by sub tracting 1.
(2) The difference between successor and predecessor of a number is the smallest composite number.
(3) The difference between least natural number and least whole number is 1.
(4) all of these

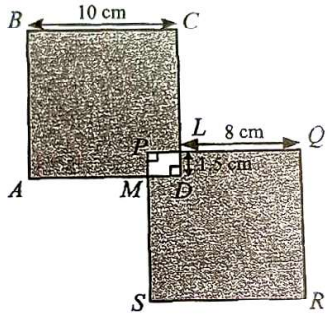
63. If p and q are two integers such that p is the predecessor of q, then p-q is equal to
(1) 1 (2) 0
(3) 2 (4)-1

64. If A and B represent two integers other than zero, then | A |+| B|-|B|-|A|
(1) may be negative (2) may be positive
(3) may be 0 (4) must be 0

65. A floor is 10 m long and 7.5 m wide. A square carpet of side 3.5 m is laid on the floor. Find the area of the floor that is not carpeted to.
(1) 58.25 sq. m (2) 60.75 sq. m
(3) 62.75 sq. (4) none of these

Rough Work

66. If ABCD and PQRS are two identical squares, then find the area of the shaded region.



(1) 180 cm² (2) 170 cm²
(3) 194 cm² (4) 173 cm²

67. What fraction of an hour is 20 minute?

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

68. Piyush reads $\frac{3}{5}$ of a book. He finds that there are still 80 pages left to be read. Total number of pages in book is _____.

(1) 100 (2) 200
(3) 300 (4) 400

69. A man spends $\frac{4}{15}$ of his monthly income on house rent, $\frac{1}{2}$ on food and $\frac{1}{5}$ on other items. He saves Rs. 800 in the end. What was his monthly income?

(1) Rs. 24000 (2) Rs. 22000
(3) Rs. 25000 (4) Rs. 20000

70. Which of the following options shows the integers arranged in descending order?

(1)-43,-37,-12,0,6,18
(2)-43,-12,-37,0,6,18
(3) 18,6,0,-12,-37,-43
(4) 18,6,0,-43,-37,-12

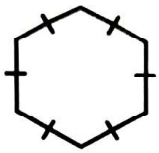
71. Find the value of P and Q.

(i) The sum of two integers is 71. If one of them is 101, then other integer is ___P___.

(ii) The product of an integer and ___Q___is zero.

	P	Q
(1)	172	0
(2)	184	1
(3)	172	1
(4)	172	2

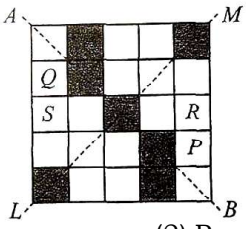
72. The order of rotational symmetry of figure is -



(1)3 (2)6
(3)4 (4)0

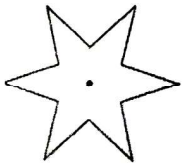
73. Which of the following square(s) must be shaded so that the given figure is symmetric along both lines LM and AB?

Rough Work



(1) R and S (2) P only
(3) Q and P (4) Q only

74. The number of lines of symmetry in the given figure is



(1) 1 (2) 3
(3) 6 (4) infinitely many

75. If we add 'x' to –25 we get 15, then the value of x is
(1) –35 (2) –10
(3) 10 (4) 40

76. Find the value of the expression below :
0–1+2–3+4–5+6–7+8–9...–17+18–19+20
(1) 10 (2) 0
(3) –10 (4) 20

77. Evaluate: [{(364 × 8) + 85} – 3474 ÷ 9] + 3×15 ÷5
(1) 2620 (2) 7833
(3) 1620 (4) 6833

78. What fraction of a day is 12 hours?
(1) 1/2 (2) 1/4
(3) 1/3 (4) 1/6

79. Which of the following is a proper fraction?
(1) 1/2 (2) 5/4
(3) 3/2 (4) 9/2

80. How many fifths are there in $3\frac{1}{5}+4\frac{3}{5}$?
(1) 18 (2) 28
(3) 39 (4) 42

Reasoning

81. CAT : KITTEN :: DOG : ?
A) Puppy B) Calf
C) Cub D) Lamb

82. Book : Reading :: Fork : ?
A) Drawing B) Eating
C) Writing D) Cooking

83. Eye : Vision :: Ear : ?
A) Smell B) Taste
C) Hearing D) Touch

84. Doctor : Hospital :: Teacher : ?
A) Classroom B) Market
C) Field D) Lab

85. Water : Thirst :: Food : ?
A) Hunger B) Energy
C) Strength D) Fatigue

86. A man walks 4 km north, then 3 km east. In which direction is he from the starting point?
A) North-East B) South-East
C) North-West D) South-West

87. Ravi walks 10 m north, then turns left and walks 5 m, then turns right and walks 10 m. How far is he from his starting point?
A) 10 m B) 15 m
C) $5\sqrt{17}$ m D) 20 m

88. A girl walks 6 m south, then 8 m east. What is the shortest distance between her starting and ending points?
A) 10 m B) 12 m
C) 14 m D) 8 m

89. A boy is facing east. He turns 270° clockwise. Which direction is he facing now?
A) North B) West
C) South D) East

90. Neha walks 5 km towards the west, then 3 km towards the south. What direction is she from her starting point?

Rough Work

A) South-West B) South-East
C) North-West D) North-East

91. If 6+3=27, 8+2=40, then 5+4=?
A) 45 B) 20
C) 25 D) 36

92. If 7×3=35 and 8×4=48, what is 9×2=?
A) 20 B) 18
C) 22 D) 36

93. If $4\#3=4^2+3^2$, find 5#2=?
A) 25 B) 27
C) 29 D) 30

94. If "×" means "+", "+" means "-", "-" means "÷", and "÷" means "×", then the value of 6+3-2×4÷2 is —
A) 4 B) 6
C) 8 D) 12.5

95. If 2*3=10 and 3*4=17, find 4*5=?
A) 26 B) 25
C) 27 D) 28

96. 5.7, ?, 10.5, 12.9, 15.3, 17.7
(1) 7.9 (2) 9.3
(3) 8.1 (4) 6.9

97. 0, 4, 18, 48, 100, ?
(1) 190 (2) 170
(3) 180 (4) 200

98. DEF, HIJ, MSO, ?
(1) IKJ (2) STU
(3) OPQ (4) XYZ

99. ZCBA, YFED, XIHG, ?
(1) WLKM (2) WJKL
(3) WKLJ (4) WLKJ

100. DWEV, FUGT, HSIR, ?
(1) JKQP (2) JPQK
(3) JQKP (4) JPKQ

Rough Work