Mathematics

1) 0.7683 + 0.369 + 0.05 + 0.8 = _____?
a) 1.8065   b) 1.9873   c) 1.8110   d) None of these

2) 14.3 + 16.78 - ? = 9.009
a) 22.089   b) 22.071   c) 21.810   d) None of these

3) The H.C.F. of 0.54, 1.8 and 7.2 is _____?
a) .18   b) 1.8   c) .018   d) 18

4) The L.C.M. of 3, 2.7 and .09 is_____?
a) 27   b) 2.7   c) .027   d) .27

5) 3.1469 + 6.837 +? =15
a) 24.9839   b) 5.7634   c) 5.0161   d) None

6) 1.086 - .3983 -.339 = ?
a) .6208   b) 1.3948   c) .0048   d) .0187

7) 14.3 + 16.78 - ? = 9.009
a) 40.089   b) 22.071   c) 21.810   d) None

8) 852.2109 + 106.78 − 59.157 = ?
a) 899.8339   b) 889.8339   c) 899.9833   d) 804.5879

9) 5463 + 546.3 - 54.63 ÷ ? = 5999.3
a) .05463   b) .5463   c) 5.463   d) None

10) Which of the following sets of fractions is in descending order?
a) $\frac{3}{5}, \frac{7}{9}, \frac{6}{7},$ b) $\frac{7}{9}, \frac{3}{5}, \frac{6}{7},$ c) $\frac{7}{9}, \frac{6}{7}, \frac{3}{5},$ d) $\frac{6}{7}, \frac{7}{9}, \frac{3}{5},$

11) What decimal of an hour is a second?
a) .0025   b) .0256   c) .00027   d) .000126

12) If $1.125 \times 10^k = 0.001125$, then the value of k is?
a) -4   b) -3   c) -2   d) -1

13) 0.393939… is equivalent to the fraction
a) $\frac{39}{100}$ b) $\frac{39}{99}$ c) $\frac{93}{100}$ d) None

14) The fraction for 0.535353…is
a) $\frac{26}{53}$ b) $\frac{27}{53}$ c) $\frac{28}{53}$ d) $\frac{53}{99}$

15) 0.8̄ expressed as a fraction is

a) $\frac{8}{10}$ b) $\frac{88}{100}$ c) $\frac{88}{99}$ d) $\frac{8}{9}$

16) 1.6̄ expressed as a fraction is

a) $\frac{16}{10}$ b) $\frac{16}{9}$ c) $\frac{5}{3}$ d) None

17) The value of 0.57̄ is

a) $\frac{57}{10}$ b) $\frac{57}{99}$ c) $\frac{26}{45}$ d) $\frac{52}{9}$

18) (.08 x .007) is equal to

a) .056   b) .0056   C) .00056   D) .56

19) The L.C.M of 26, 56,104, and 182 is

a) 546   b) 1274   c) 728   d) 784

20) The H.C.F of 3556 and 3444 is

a) 25   b) 26   c) 28   d) 23

21) The perimeter of a rectangular field is 480 meters and the ratio between the length and breadth is 5:3 the area of the field is

a) 7200 m^2 b) 15000 m^2 c) 13500 m^2 d) 54000 m^2

22) If the length and breadth of a rectangular plot are increased by 50% and 20% respectively, then the new area is how many times the original area?

a) $\frac{5}{9}$ b) 10   c) $\frac{9}{5}$ d) None of these

23) The length of a rectangle is increased by 60%. By what percent would the width have to be decreased to maintain the same area?

a) 37.5%   b) 60%   c)75%   d) 120%

24) If each side of a square is increased by 50%, the ratio of the area of resulting square to the area of the given square is?

a) 5:4   b) 9:4   c) 4:5   d) 4:9

25) The length of a blackboard is 8 cm more than its breadth. If the length is increased by 7 cm and breadth is decreased by 4 cm, the area remains the same. The length and breadth of the black board (in cms) will be

a) 28,20   b) 34,26   c) 40,32   d) 56,48

26) If the diagonal of a square is doubled to make the diagonal of another square, the area of the new square will?

a) Become two fold   b) Become three fold   c) Become four fold   d) remains the same

27) A hall 20m long and 15m broad is surrounded by a verandah of uniform width of 2.5m. The cost of flooring the verandah at Rs. 3.50 per square metre is

a) Rs. 500   b) Rs.600   c) Rs. 700   d) Rs. 800

28) The number of marble slabs of size 20cm x 30 cm required to pave the floor of a square room of side 3 meters, is

a) 100   b) 150   c) 225   d) 25

29) If each side of a square is increased by 25%, its area is increased by

a) 25%   b) 50%   c) 40.5%   d) 56.25%

30) A man walking at the speed of 4 kmph crosses a square field diagonally in 3 minutes. The area of the field is

a) 18000 m^2 b) 20000 m^2 c) 19000 m^2 d) 25000 m^2

31) If the perimeters of a square and a rectangle are the same, then the areas A and B enclosed by them would satisfy the condition

a) A<B   b)A≤ B   c) A>B   d) A≥B

32) The ratio of the area of a square to that of the square drawn on its diagonal is

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

33) If the ratio of the areas of two squares is 9:1, the ratio of their perimeter is

a) 9:1   b) 3:1   c) 1:3   d) 3:4

34) If the diagonal of a rectangle and a square , each is equal to 80cm and the difference of their areas is 100 sq.cm, the sides of the rectangle are

a) 35cm, 15 cm   b) 30cm, 10 cm   c) 28cm, 12 cm   d) 25cm, 15 cm

35) If the diagonal of a rectangle is 17 cm long and the perimeter of the rectangle is 46 cm, then the area of the rectangle is

a)112 cm^2 b) 120 cm^2 c) 132 cm^2 d) 289 cm^2

36) The areas of two concentric circles forming a ring are 154 sq. cm and 616 sq. cm. The breadth of the ring is

   a) 7cm   b)14 cm   c) 21 cm   d) 28 cm

37) The circumference of two concentric circles forming a ring is 88 cm and 66 cm respectively, The width of the ring is

 a) 3.5 cm   b) 10.5 cm   c) 7 cm   d) 14cm

38) The diameter of a wheel is 1.26 m. How far will it travel in 500 revolutions?

a) 2530m   b) 1980m   c) 1492m   d) 2880m

39) If the diameter ofa circle is increased by 100%, its area will decrease by

a) 100%   b) 200%   c) 300%   d) 400%

40) If the circumference of a circle is increased by 50%, then its area will be increased by

a) 50%   b) 100%   c) 125%   d) 225%

41) The area of a circular field is 13.86 hectares. The cost of fencing it at the rate of 40 paise per metre is

a) Rs. 554.40   b) Rs. 528   c) Rs. 369   d) Rs. 648

42) The area of the largest circle that can be drawn inside a square of side 14 cm in length is

a) 154 cm^2 b) 84 cm^2 c) 204 cm^2 d) None of these

43) The area of largest possible square inscribed in a circle of unit radius (in sq. units) is

  a) 2   b) π c) $2\sqrt{2}\,\pi$ d) $4\sqrt{2}\,\pi$

44) The ratio of the areas of the incircle and circumcircle of an equilateral triangle is

a) 1:$\sqrt{2}$ b) 1: $\sqrt{2}$ c) 1:4   d) 1:2

45) The area of a circle inscribed in an equilateral triangle of side 24cm, is

 a) 18 π cm^2 b) 24 π cm^2 c) 36 π cm^2 d) 48 π cm^2

46) A circular wire of radius 42 cm is cut and bent into the form of a rectangle whose sides are in the ratio of 6:5. The smaller side if the triangle is

a) 30cm   b) 60cm   c) 72cm   d) 132cm

47) Four circular cardboard pieces , each of radius 7 cm are placed in such a way that each piece touches two other pieces. The area of the space enclosed by the four pieces is

a) 21cm^2 b) 42cm^2 c) 84cm^2 d) 168cm^2

48) Four horses are tethered at four corners of a square plot of side 63 meteres so that they just cannot reach one another. The area left ungrazed is

a) 675.5 m^2 b) 780.6 m^2 c) 785.8m^2 d) 850.5 m^2

49) The difference between the local value and the face value of 7 in the numeral 657903 is

a) 0   b) 7896   c) 6993   d) 903

50) $\frac{392}{\sqrt{?}}$ = 28

a) 144   b) 196   c) 24   d) 48

Science

51. Frozen water is called_____
A) Fog   B) ice   C) steam   D) vapor

52. Which animal has wings?
A) Bird   B) frog C) mouse D) rabbit

53. About how long does it take Earth to make one revolution around the Sun?
A) A day   B) a week C) a month D) a year

54. The presence of substance called_____ makes a leaf green

a) Chlorophyll   b) Xanthophyll c) carotene d) carotenoid

55. A plant takes in water from the soil & _____ from the air.

a) H_2O b) CO_2 c) O_2 d) C2O2

56. In the presence of sunlight green leaves change air & water into the food in form of _____

a)Carbohydrate   b) Protein c) Starch d) Sugar

57. The main vein is caused _____

a) Midrib   b) Side vein   c) main vein   d) None

58. During _____ a leaf takes in carbon dioxide & gives out Oxygen

a) Respiration b) Translocation c) Photo Periodism d) Photosynthesis

59. The food prepared by plants is in the form simple _____

a) Carbohydrate   b) starch c) sugar d) all the above

60. Plant store food in the form of _____

a) Starch   b) salt   c) CO_2 d) H2O

61. Moulds don't have _____

a) Xanthophylls   b) Chlorophyll   c) carotenoid   d) carotene

62. Plants that grow on water called _____

a) Terrestrial   b) Aquatic   c) Amphibians d) All of the above

63. _____ trees are found in very cold places

a) Cactus   b) Mangrooves   c) Spruce   d) None

64. Plants that grow in hot and damp areas are _____

a) Teak   b) Coconut c) Tea d) All

65. _____ is one such plant that grows in desert.

a) Teak   b) Cactus   c) Duckweed   d) None

66. In _____ areas, the soil is sticky & clayey

a) Desert b) Forest c) Marshy d) both a & c

67. Fixed plant is one of the types of _____

a)Terrestrial b) Aquatic c) both a& b d) None

68. _____ is floating plants

a) Duckweed   b) water hyacinth   c) lettuce d) all

69. Lotus is _____ plant

a) Fixed   b) Floating   c) Under water d) None

70. _____ plants clean the water by removing the CO_2 breathed out by aquatic animals like fish and turtles.

a) Fixed   b) Under water   c) Floating   d) a&b

71. Bamboo shoots have a High nutritional value and are rich in _____

a) Vitamins   b) Protein   c) Both a & b d) None

72. _____ leaves provide a nesting place for some tiny birds.

a) Under water b) Fixed   c) Floating d) All

73. Paper walls first made by the people of _____ from grass called papyrus.

a)   China   b) Bihar c) Egypt   d) both a & c

74. _____ is examples of insectivorous plant

a) Pitcher plant   b) Cactus   c) Sundrew d) both a & c

75. The smallest living mammal is ---------------

a) Rats   b) cats   c) Kitti's hog nosed bat d) None of the above

76. within the shell is the egg white called-----------

a) Globulin   b) Yolk   c) Albumin   d) both a & c

77. A ---------- egg develops into a tadpole

a) Lizards   b) Frog's   c) Fish   d) All the above

78. The baby insect which comes out of the egg is called -----------

a) Adult   b) Nymph   c) both a & b   d) young one

79. Houseflies have -------- stages in their life cycle

a) 3   b) 4   c) 6   d) None of the above

80. The young one that hatches from the egg of these insect is called ---------

a) Nymph   b) Adult   c) Baby   d) Larva

81. The larva of housefly is called ----------

a) Maggot   b) Nymph   c) Caterpillar   d) Larva

82. The larva of butterfly is called -----------

a) Maggot   b) Nymph   c) Caterpillar   d) None of the above

83. ----------- is the resting stage in which it stops eating.

a) Caterpillar   b) Larva   c) Pupa   d) Maggot

84. All ------------- hatch from the egg.

a) Reptiles   b) Fish   c) Frog   d) All the above

85. ------------ have three stages in their lifecycle

a) Grasshopper b) cockroaches   c) Butterfly   d) both a & b

86. ---------------- means shedding of old skin or shell.

a) Changing   b) Melting   c) Moulting   d) All the above

87. The chicks comes out after ------------- days

a) 15   b) 31   c) 21   d) 26

88. ---------- bodies are covered with hair.

a) Cats   b) Mammals   c) Horses   d) all the above

89. A ------------lays thousand of egg at a time in water.

a) Turtles   b) Snake   c) Fish   d) both b & c

90. ---------- is the period of time for which a living thing lives or is expected to live.

a) Reproduction   b) Lifespan   c) Growth   d) both a & b

91. Fish and crabs have --------------- that helps them to breadth in water.

a) Nose   b) Gills   c) Wings   d) Mouth

92. The leaves of some plants like the croton have chlorophyll, but they appear dark----------

a) Green   b) Red   c) Yellow   d) Pink

93. Spines prevents the loss of ---------------

a) Carbon dioxide   b) Oxygen   c) Water   d) both b & c

94. ------ are cereal plants.

a) Wheat   b) Rice   c) Tur   d) both a & b

95. Dried grass is used as -------------------

a) Preparing medicines b) Packing material   c) Making paper d) All the above

96. Animals that fly are called ------------ animals

a) Arboreal   b) Aerial   c) both a & b   d) None of the above

97. Some animals like Lizards and frogs sleep for several month to protect them from the cold. This is called-------------

a) Aestivation   b) hibernation   c) Moulting   d) None of the above

98. Plant eating animals are called ------------

a) Herbivores   b) Carnivores   c) Omnivores d) All the above

99. Some animals live on or inside the bodies of other animals for their food are called --------------

a) Parasites   b) Host   c) both a & b   d) None of the above

100. Terrestrial animal's breadth through -------------

a) Air holes   b) Gills   c) Lungs   d) Scales