ANANDALAYA
PERIODIC TEST – 2
Class – VIII

Subject: Mathematics   M.M: 50
Date   : 24/09/2018   Time: 2 hours

General Instructions:
1. All questions are compulsory.
2. This question paper contains 22 questions.
3. Questions 1 – 7 in Section A are very short-answer type questions carrying 1 mark each.
4. Questions 8 – 13 in Section B are short-answer type questions carrying 2 marks each.
5. Questions 14 – 18 in Section C are short -answer type questions carrying 3 marks each.
6. Questions 19 – 22 in Section D are long-answer type questions carrying 4 marks each.

SECTION-A

1. Name the simple closed curve made up of only four straight line segments. (1)

2. When a die is thrown, find the probability of getting only prime numbers. (1)

3. What will be unit digit in the cube of 998224? (1)

4. What is the smallest number by which 8 should be multiplied to make it perfect square? (1)

5. Find, whether 4000 is a perfect square number. (1)

6. What is the measure of each interior angle of a regular octagon? (1)

7.. How many non- square numbers lie between squares of 179 and 180? (1)

SECTION-B

8. The interior angles of a pentagon are in the ratio 3 : 4 : 5 : 7 : 8 . Find the measure of each of the angles. (2)

9. Show that 9216 is a perfect square. Also, find the number whose square is 9216. (2)

10. Find the cube root of 74088. (2)

11. Write true(T) or false(F) for the following statements. (2)
    (a) The product of two square numbers is a square number.
    (b) The square of a prime number is a prime number.
    (c) No square number is negative.
    (d) A perfect square number never ends with odd number of zeros.

12. State whether True(T) or False(F) (2)
    (i) A polygon is regular if all of its sides are equal.
    (ii) A kite is a convex quadrilateral.
    (iii) Diagonals of rectangle bisect each other at right angles.
    (iv) A quadrilateral can have all four angles as obtuse.

13. Find the smallest number by which 23805 must be divided so that resulting number is a perfect square number. (2)

14. ABCD is a quadrilateral. AO and BO are angle bisectors of angle ∠A and ∠B which meet at O. If ∠C = 75⁰ and ∠D = 65⁰ , find the ∠AOB. (3)
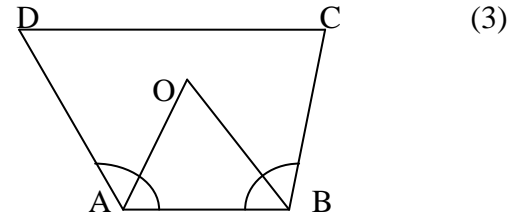

15. Draw a quadrilateral JUMP in which JU = 6.7 cm, UM = 5.5 cm , MP= 7.4 cm, PJ = 5 cm and UP = 7.6 cm. (3)

16. Draw a pie chart for the per cent of money spent on various types of books by a library in one year. (3)

Type of book	Fiction	Classics	Sports	Biography	Magazines	Others
Percentage (%)	20%	15%	10%	12.5%	22.5%	20%

17. Find the least number which should be subtracted from 194485 to make it perfect square. Also find the square root of the number so obtained. (3)

18. Find the least number by which 54000 should be divided to make it perfect cube. Also find the cube root of the number so obtained. (3)

SECTION-D

19. Find the value of x and hence find the values of interior angles ∠A , ∠B , ∠C and ∠D. (4)
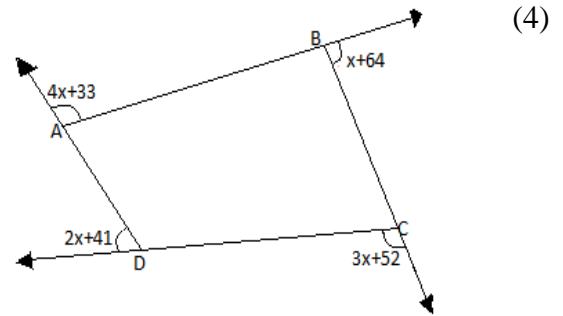
20. Construct a quadrilateral ZEAL in which ZE = 5.4 cm , EA = 6.2 cm , ∠Z = 60⁰ , ∠E = 115⁰, ∠A = 90⁰. Write steps of construction. (4)

21. The marks obtained (out of 20) by 30 students of a class in a test are as follows: 14, 16, 15, 11, 15, 14, 13, 16, 8, 10, 7, 11, 18, 15, 14, 19, 20, 7, 10, 13, 12, 14, 15, 13, 16, 17, 14, 11, 10, 20. Prepare a frequency distribution table for the above data using class intervals of equal width in which one class interval is 4 –8. Also draw a histogram for the table thus obtained. (4)

22. A gardener has 8805 plants. He wants to plant them in such a way that the number of plants in a row are equal to the number of rows. After, plantation started, he found that some more plants are needed to fulfill his wish. Find the number of plants needed. Also find the number of rows and number of plants in one row after successful completion of his wish. (4)