FUSCO'S SCHOOL (I.C.S.E)
Indiranagar, Bangalore
ANNUAL EXAMINATION 2016-17
Subject: Mathematics

Time: $2\frac{1}{2}$ **hrs.**
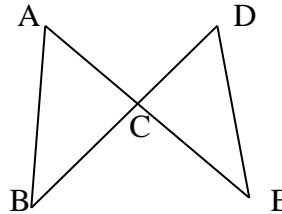
Class: VII   **Marks : 80**

Section – A

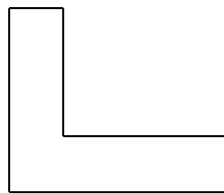**Question 1**

    a. Find the cost of distempering four walls of a room at the rate of Rs. 30 per m^2 .   3
Each wall is a square of side 4m.

    b. Construct a quadrilateral ABCD, such that : AD = 5cm , AB = 5cm ,   3
BD = 6cm, CD = 4.5 cm , and BC = 5.5cm.

    c. In the given figure, prove that :   4

        i. $\triangle ACB \cong \triangle ECD$

        ii.   AB = ED

Question 2

    a. Two numbers are in the ratio 10 : 11. Their sum is 168.Find the numbers.   3

    b. On selling an article for Rs. 2,640, a profit of 10 percent is made.   3
      Find : (i)   cost price of the article.
               (ii) new selling price of it , in order to gain 15%.

    c. Find the area and perimeter of the given figure.All angles are 90^0 and all   4
   sides are in cm

Question 3

    a. Construct a rectangle ABCD, if : AB = 4.2cm and BC= 5.8cm.   3

    b. Find the cost price of an article , which is sold for Rs. 4050at a loss of 10% .   3
      Also find the new selling price of the article which must give a profit of 8% .

    a. A rectangular garden is 200m long and 150m broad. Find: 4

      i.   The length of its perimeter .

      ii.   The cost of fixing fence at the rate of Rs.50 Per metre.

     iii.   The area of the garden and the cost of ploughing it at the rate of Rs.8
            per square metre.

Question 4

a. Prove that :
   i.   Δ ABC ≅ Δ ADC
   ii. < B = < D
   iii. AC biscects angle DCB
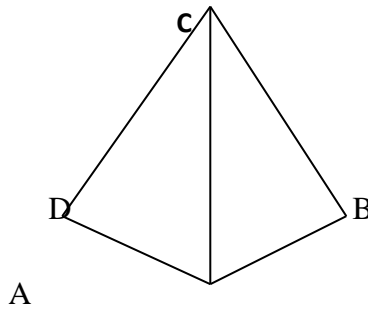
b. Find the perimeter and the area of a square whose each side is 4.2 cm.   3
c .If m : n = 4 : 9 and n : s = 3 : 7, find m : s   3

4

Section – B

Question 5

a. A pair of shoes , marked at Rs. 320, are sold at a discount of 15 percent.   3
   Find: (i)   discount,
             (ii)selling price of the shoes.

b. Find the area in m^2 and the perimeter in metre for the rectangle whose :   3
   i.   length = 20m and breadth = 15m
   ii. length = 1.2m and breadth = 10cm

c. Construct a quadrilateral ABCD, such that :AB = 4 cm, BC = 5 cm,   4
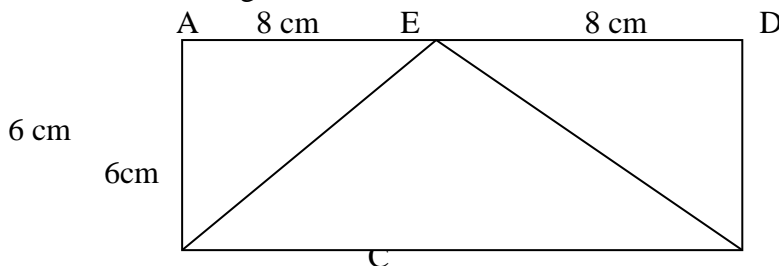   AD = 6 cm, <ABC = 90^0 and <BAD = 120^0.

Question 6

a. Find the area of the shaded part of the figure given below . In the figure   3
   ABCD is a rectangle.

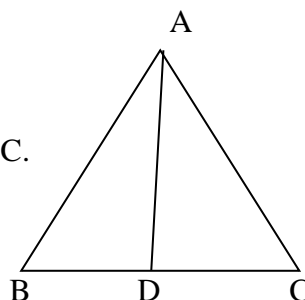b. Construct a parallelogram ABCD, if : AB = 6 cm, BC = 4.8cm and   3
   < ABC = 60^0.

c. In the given figure ,< 1 = < 2 and AB = AC,   4
   Prove that :
   i.   < B = < C
   ii. $BD = DC$
   iii. AD is perpendicular to BC.

Question 7

  a. The selling price of an article is Rs. 1200 and cost price is $\frac{5}{4}$ times of its   4
     selling price. Find :
       i.   Cost price of the article,
      ii.   Profit or loss as percent.

  b. Find the mean proportion between :   3
       i.   3 and 27
      ii. $\frac{1}{4}$ and $\frac{1}{16}$

  c. Find the selling price , if CP = Rs. 500 and gain = 25%.   3

Question 8

  a. Construct a square ABCD,if : AB =5.7 cm.Measure its diagonals.   3
  b. Find the other side and the area of a rectangle whose length(l) and
     Perimeter(p) are: l = 10m and p = 34m.   3
  c. Find the lengths of the base and the height of the triangles whose area and ratio   4
     of base(b) and height(h) are given: area = 360m^2 and b : h = 4.5.