M.Sc. IN LEATHER GOODS AND ACCESSORIES DESIGN (MSCLGAD)

Term-End Examination

)211   **December, 2015**

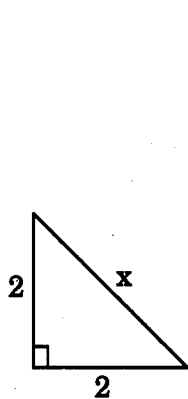## MFW-050 : GEOMETRIC CONSTRUCTION
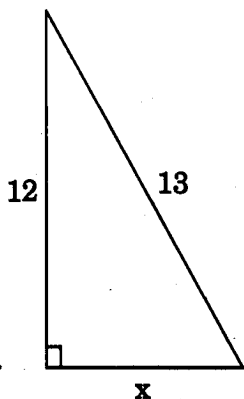
Time : 3 hours   *Maximum Marks : 70*

Note : *Answer any **seven** questions. All questions carry equal marks. Use of scientific calculator is permitted.*
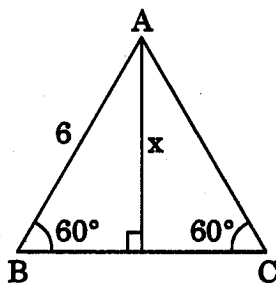
1. Calculate the measure of interior angle of a regular Pentagon and a regular Decagon.   *10*

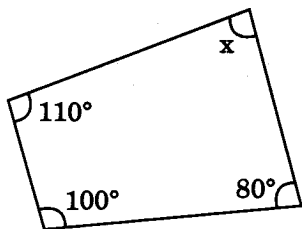2. Define the Pythagoras theorem and calculate 'x' in the following figures :   *10*
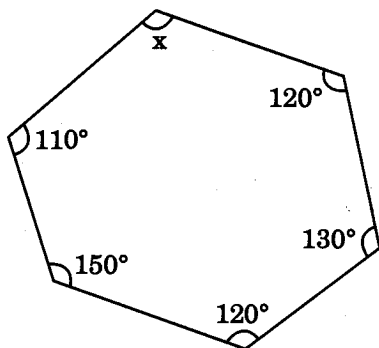

(a)   (b)   (c)

3. Calculate 'x' in the following figures : **10**

(a)

(b)

4. (a) What are complementary angles and supplementary angles ?

(b) What is the sum of all the interior angles of a hexagon ? *2×5=10*

5. Define any *five* of the following : *5×2=10*

(a) Radius of a Circle

(b) Platonic Solids

(c) Regular Hexagon

(d) Fibonacci Spiral

(e) Vertice Configuration of a Polygon

(f) Median of a Triangle
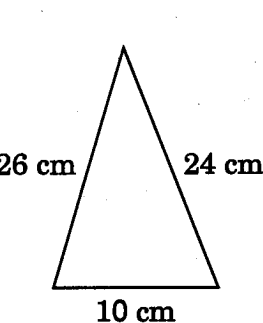
6. (a) What is the golden ratio ?

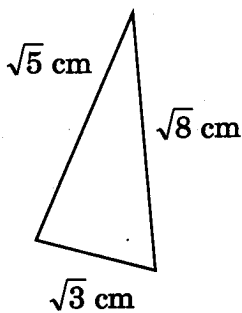(b) How is the golden ratio related to the golden rectangle ? *2×5=10*

7. Do the following triangles have right angles ? Explain. *10*
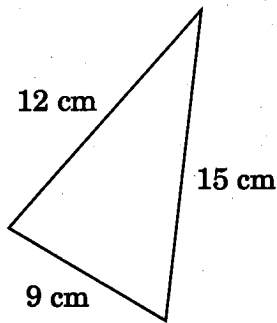

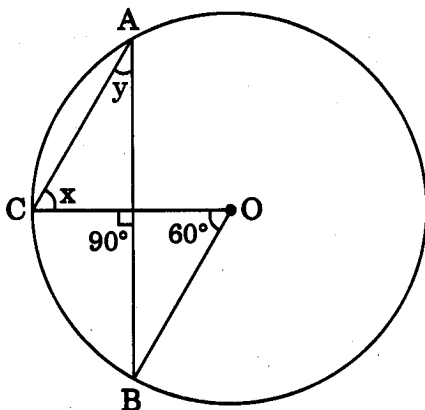(a)   (b)   (c)

8. (a) The sides (in cm) of a right angled triangle containing the right angle are $5x$ and $3x - 1$. If the area of the triangle is 60 cm^2, find the sides of the triangle.

(b) Find the value of x and y from the adjoining figure.

$2 \times 5 = 10$