

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

**Term-End Examination 00062  
December, 2011**

**MFW-050 : GEOMETRIC CONSTRUCTION**

*Time : 3 hours*

*Maximum Marks : 70*

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**Note :** All questions are compulsory.

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1. Select the correct word from the options and fill up the space. 10

- |                    |                     |
|--------------------|---------------------|
| (a) Line           | (b) Surface         |
| (c) Space          | (d) Straight line   |
| (e) Line segment   | (f) Ray             |
| (g) Plane          | (h) Solid           |
| (i) Solid Geometry | (j) Plane Geometry. |
- (i) A \_\_\_\_\_ is a flat surface
- (ii) \_\_\_\_\_ is the set of all points
- (iii) \_\_\_\_\_ is the boundary of a solid
- (iv) \_\_\_\_\_ is a three dimensional geometric figure.

- (v) A \_\_\_\_\_ is the path formed by a moving point.
- (vi) A length of a \_\_\_\_\_ is the shortest distance between two non-adjacent points and is made up of collinear points.
- (vii) A \_\_\_\_\_ is a portion of a line.
- (viii) \_\_\_\_\_ is the geometry of three dimensional figures.
- (ix) A \_\_\_\_\_ is an infinite set of collinear points extending from one end point to infinity.
- (x) \_\_\_\_\_ is the geometry of planar figures (two dimensional )

2. Name the platonic solids having : 5

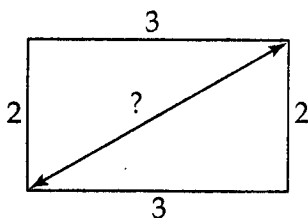
- (a) 04 faces                      (b) 06 faces
- (c) 08 faces                      (d) 10 faces
- (e) 20 faces

3. Illustrate and explain the following angles. 5

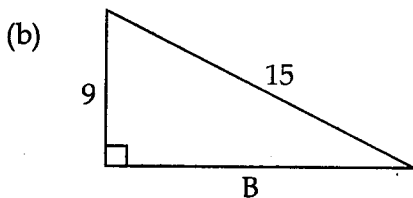
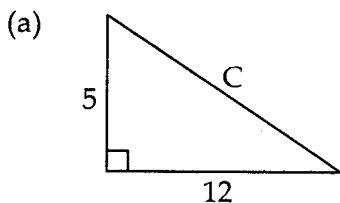
- (a) Right                              (b) Straight
- (c) Obtuse                              (d) Acute

4. Does an 8, 15, 16 triangle have Right Angle or 5  
 $8^2 + 15^2 = 16^2$ .

5. What is the diagonal distance across the rectangle drawn below ? 5

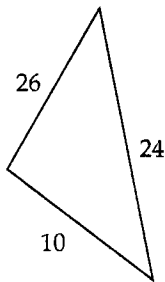


6. Solve the following triangles 10

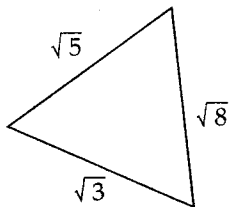


7. Do the triangles given below have right angle. 10  
Explain.

(a)

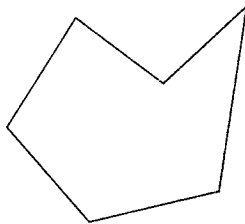


(b)



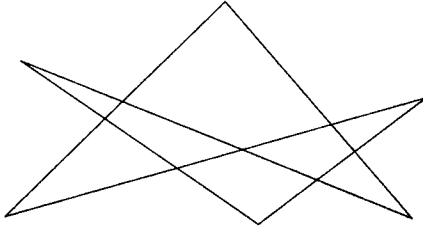
8. Which of the following most accurately describes the polygon in the diagram ? 10

(a)



- (i) Regular Hexagon
- (ii) Irregular convex Hexagon
- (iii) Irregular Concave Hexagon
- (iv) Complex Hexagon

(b)



- (i) Regular Hexagon
- (ii) Irregular Concave Heptagon
- (iii) Irregular Heptagon
- (iv) Irregular Complex Hexagon.

9. Read each clue then decide on the most specific name possible for the polygon being described. **10**

- (a) It is a closed polygon with no parallel sides. It has no right angles. All sides and angles are congruent. It has as many diagonals as it has sides. Its diagonals form a star.
- (b) It is a closed polygon with two right angles. It has one pair of parallel sides. It has only one line of symmetry. If you cut along any one diagonal, you will create one triangle and one quadrilateral.

**OR**

- (a) What is the golden ratio ?
- (b) How is the golden ratio related to the golden rectangle ?