

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

00450 Term-End Examination

December, 2017

MFW-050 : GEOMETRIC CONSTRUCTION

Time : 3 hours

Maximum Marks : 70

Note : Attempt any seven questions. All questions carry equal marks.

1. Define platonic solids and name them. Mention the number of vertices, edges and faces of platonic solids. 10

2. Calculate the measure of the interior angles of a regular pentagon and a regular decagon. 10

3. What do you understand by the terms "Fibonacci Spiral" and "Fibonacci Series" ? Give examples from nature where you can see the Fibonacci Spiral. 10

4. (a) What is the “Dual” of a cube ?
- (b) How many edges and vertices does a pyramid have ?
- (c) What is the vertices configuration of a cuboctahedron and a truncated icosahedron ? $3+3+4=10$
5. Define Archimedian solids and state the characteristics of Archimedian solids. 10
6. The circumference of the base of a cylindrical vessel is 132 cm and its height is 25 cm. How many litres of water can it hold ?
(Given : $1000 \text{ cm}^3 = 1 \text{ litre}$) 10
7. In Figure 1, $\angle ABC = 69^\circ$, $\angle ACB = 31^\circ$. Find $\angle BDC$. 10

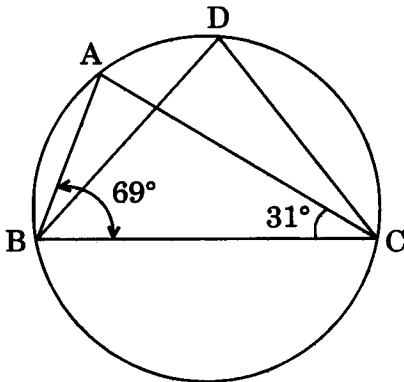


Figure 1

8. In Figure 2, find the value of x and y , and then show that $AB \parallel CD$.

10

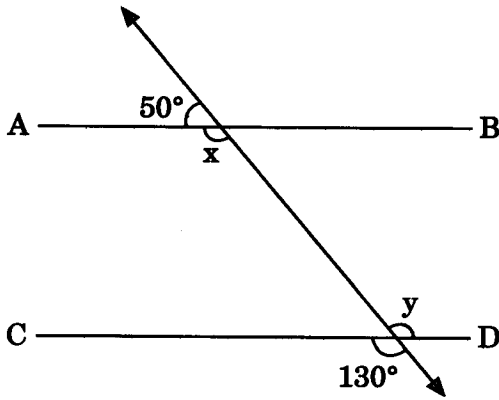


Figure 2
