B.Sc. IN LEATHER GOODS AND ACCESSORIES DESIGN (BSCLGAD)

Term-End Examination

⊓⊓ӠᄃӠ   **December, 2016**

BFW-051 : GEOMETRIC CONSTRUCTION

Time : 3 hours   *Maximum Marks : 70*

Note :   (i)   *All questions of Section A are* **compulsory.**

   (ii) *Answer any* **four** *questions from Section B.*

   (iii) *Answer any* **two** *questions from Section C.*

SECTION A

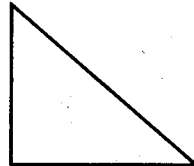1. Objective type questions :

Select the correct answer from the given four alternatives.   *5×2=10*

(a)   Which of the following is a regular geometric shape (2-D) ?

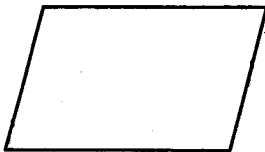(i)   (ii)

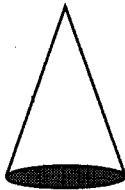(iii)   (iv)
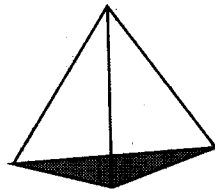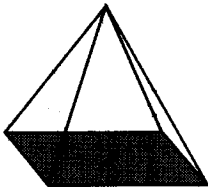
(b) Which of the following is a regular geometric shape (3-D) ?

(i)

(ii)

(iii)

(iv)

(c) The total number of Archimedean solids are

(i) 11

(ii) 13

(iii) 12

(iv) 14

(d) The total number of regular tessellations are

(i) 2

(ii) 4

(iii) 3

(iv) 5

(e) Dodecahedron is a 3-D composition, which is made up of _____ as 2-D surfaces.

(i) triangles

(ii) pentagons

(iii) hexagons

(iv) nonagons

2. Identify the *True* or *False* from the following statements :   5×2=10
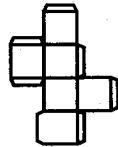
   (a) Archimedes developed a number of 11 2-D forms.

   (b) Icosahedron is a platonic solid.

   (c) Hexagon may compose regular tessellation.

   (d) It is not possible to draw an equilateral nonagon in a class-room.

   (e) Plastic scale is always better than steel scale for any geometric construction.

3. Match the following :   5×2=10

   (a) Paper net of Octahedron   (i)

   (b) Paper net of Icosahedron   (ii)
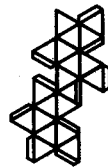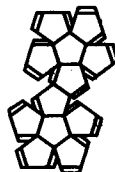
   (c) Paper net of Cube   (iii)

   (d) Paper net of Dodecahedron   (iv)

   (e) Paper net of Tetrahedron   (v)

SECTION B

*Answer any **four** of the following :*

4. Bisect an angle of 15°, by using compass and scale only.   5

5. Draw any two regular tessellations of your choice. (Side length value = 5 cm).   5

6. Draw a pentagon (R = 5 cm).   5

7. Draw a septagon or heptagon (R = 5 cm).   5

8. Explain duals in short with illustrations.   5

9. Write the names of all platonic solids.   5

SECTION C

*Answer any **two** of the following :*

10. Identify all of the marked/numbered parts in the following image :   *10*
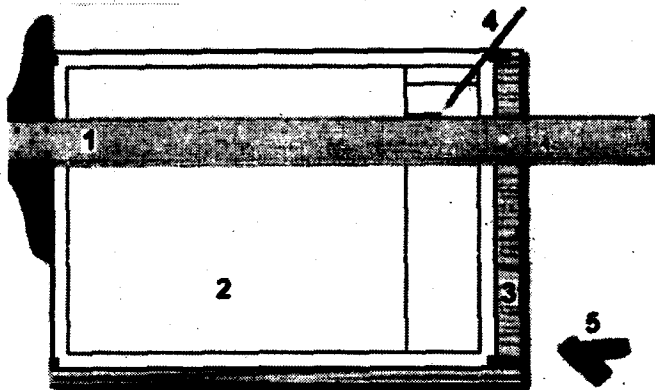
11. Differentiate between 2-D and 3-D geometry. Elaborate.   *10*

12. Discuss Archimedean solids in detail.   *10*

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