



ELIZADE UNIVERSITY, ILARA-MOKIN
FACULTY OF ENGINEERING
DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING

COURSE CODE: GNE 251 SESSION/SEMESTER: FIRST SEMESTER/ 2020/2021
COURSE TITLE: ENGINEERING DRAWING **LEVEL: 200L**
TIME ALLOWED: 3 HOURS
INSTRUCTION: ATTEMPT QUESTION 1, 2 AND ANY OTHER 2 QUESTION

Question 1 (20 marks)

(Q1a) The Isometric block (Figure 1) is to be drawn and projected (15 Marks)

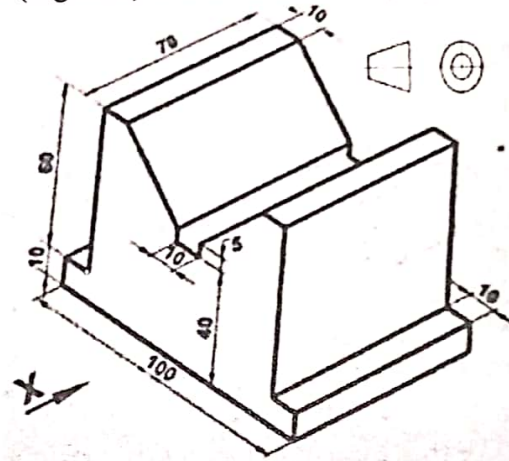


Figure 1: Isometric block

- (b)** Explain the following terms in relation to AutoCAD (i) World Coordinate System (WCS) (ii) Mirror (iii) Scale (iv) Chamfer (v) Explode **(5 marks)**

Question 2 (20 marks)

- (Q2a)** The square pyramid shown in Figure 2 has a slant edge (L) with dimension of 70mm. The dimension of the slant edge (L_1) of the cut portion is given as 40mm. Produce the development of the square pyramid frustum. Dimension all members appropriately. **(15 Marks).**

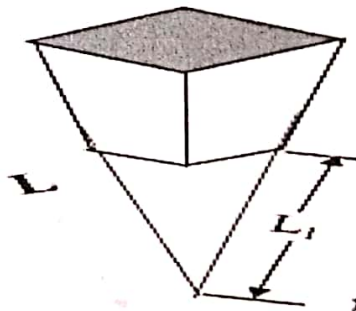


Figure 2: Square Pyramid

- (2b)** Explain the following four different types of 3D models (i) Wireframe models
(ii) Surface models (iii) Solids models (iv) Mesh Models (v) Extrude **(5 marks)**

Question 3 (10 marks)

- (Q3a)** Define the following methods of projection (i) Axonometric projection, (ii) Oblique projection, (iii) Perspective projection, (iv) Orthographic projection **(8 marks)**
- (b)** List four differences between 1st and 3rd angle projections **(2 marks)**

Question 4 (10 marks)

- (Q4a)** Define Freehand sketching listing the four different forms of freehand sketching **(2 marks)**
- (b)** List and explain factors on which type of projection depends **(8 marks)**

Question 5 (10 marks)

- (Q5a)** List 10 software's used in engineering drawing **(5 marks)**
- (5b)** List the advantages of freehand sketching in engineering drawing **(5 marks)**