

COURSE CODE: GNE 201 SESSION/SEMESTER: FIRST SEMESTER/ 2018/2019

COURSE TITLE: ENGINEERING DRAWING

LEVEL: 200L

TIME ALLOWED: 3 HOURS

INSTRUCTION: ATTEMPT QUESTIONS 1, 2 AND ANY OTHER TWO

Question 1 (20 marks)

a) The Isometric block (Figure Q1) is to be drawn and projected (15 Marks)

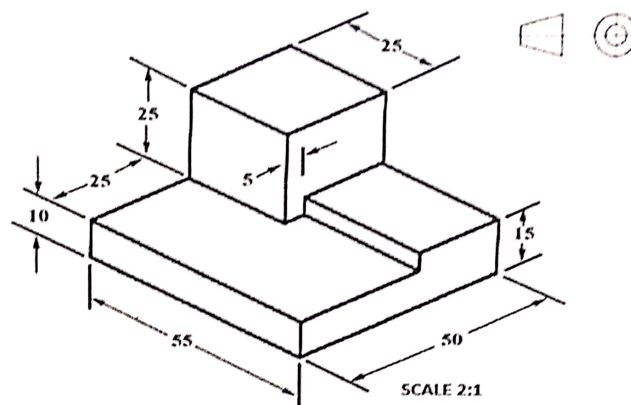


Figure Q1: Isometric block

b) Explain the following terms in relation to AutoCAD as follows:

- i. World Coordinate System (WCS)
- ii. Mirror
- iii. Scale
- iv. Chamfer
- v. Explode

(5 marks)

Question 2 (20 marks)

a) A cylinder 50mm diameter and 70mm axis as shown in Figure Q2 is completely penetrated by another of 40 mm diameter and 70 mm axis horizontally. Both axes intersect and bisect each other. Draw projections showing curves of intersections (15 marks).

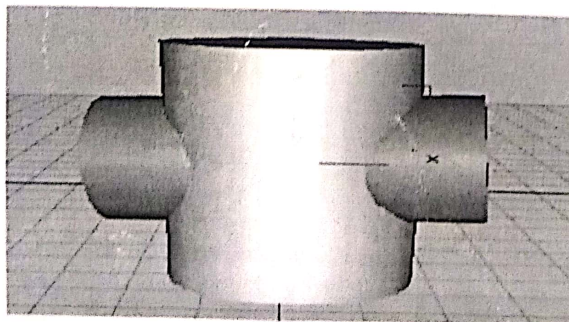


Figure Q2: Cylinder standing and cylinder penetrating

- c) Explain the following four different types of 3D models as follows:
- i. Wireframe models
 - ii. Surface models
 - iii. Solids models
 - iv. Mesh Models
 - v. Extrude **(5 marks)**

Question 3 (10 marks)

- a) 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 (15 marks)

- a) 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 (15 marks)

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

- c) Explain the following four different types of 3D models as follows:
- i. Wireframe models
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 - v. Extrude (5 marks)

Question 3 (10 marks)

- a) Define the following methods of projection
- i. Axonometric projection,
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 - iv. Orthographic projection (8 marks)
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Question 5 (15 marks)

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