



TECHNICAL UNIVERSITY OF MOMBASA

SCHOOL OF ENGINEERING AND TECHNOLOGY

Department of BUILDING AND Civil engineering

UNIVERSITY EXAMINATION FOR:

DIPLOMA IN CIVIL ENGINEERING

DCE 2307 : CIVIL ENGINEERING DRAWING (CAD)

SPECIAL / SUPPLEMENTARY EXAMINATION

SERIES: APRIL 2025

TIME: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- Answer booklet
- Laptop or desktop computer

This paper consists of FIVE questions. Attempt any THREE questions

Maximum marks for each part of a question are shown

Do not write on the question paper.

QUESTION ONE (20 Marks)

- a) Explain the functions of the following commands
 - i) Trim Command
 - ii) Extend Command
 - iii) zoom extents(6 Marks)
- b) Define Dimensions. Explain how to dimension drawing using the dimension command. (7 Marks)
- c) Define Text. Explain how to insert a text in a drawing using the text command (14 Marks)

QUESTION TWO (20 Marks)

- a) List three methods of entering commands in AutoCAD. (3 Marks)
- b) Define **Layers**. Briefly describe 3 basic layer properties. (4 Marks)
- c) Explain the functions of the following commands
 - i) Pan Command
 - ii) Zoom Command
 - iii) Ortho Mode(3 Marks)
- d) Redraw the Slab beam in diagram 2, Include missing reinforcements, text and dimension. Plot and save final drawing as a PDF document. (10 Marks)

QUESTION THREE (20 Marks)

Using line illustration, describe how to:

- a) Chamfer at distance 50mm
 - b) Draw an 8 sided polygon
 - c) Fillet at Radius100mm
 - d) Offset an object at a distance of 200mm
- (20 Marks)

QUESTION FOUR (20 Marks)

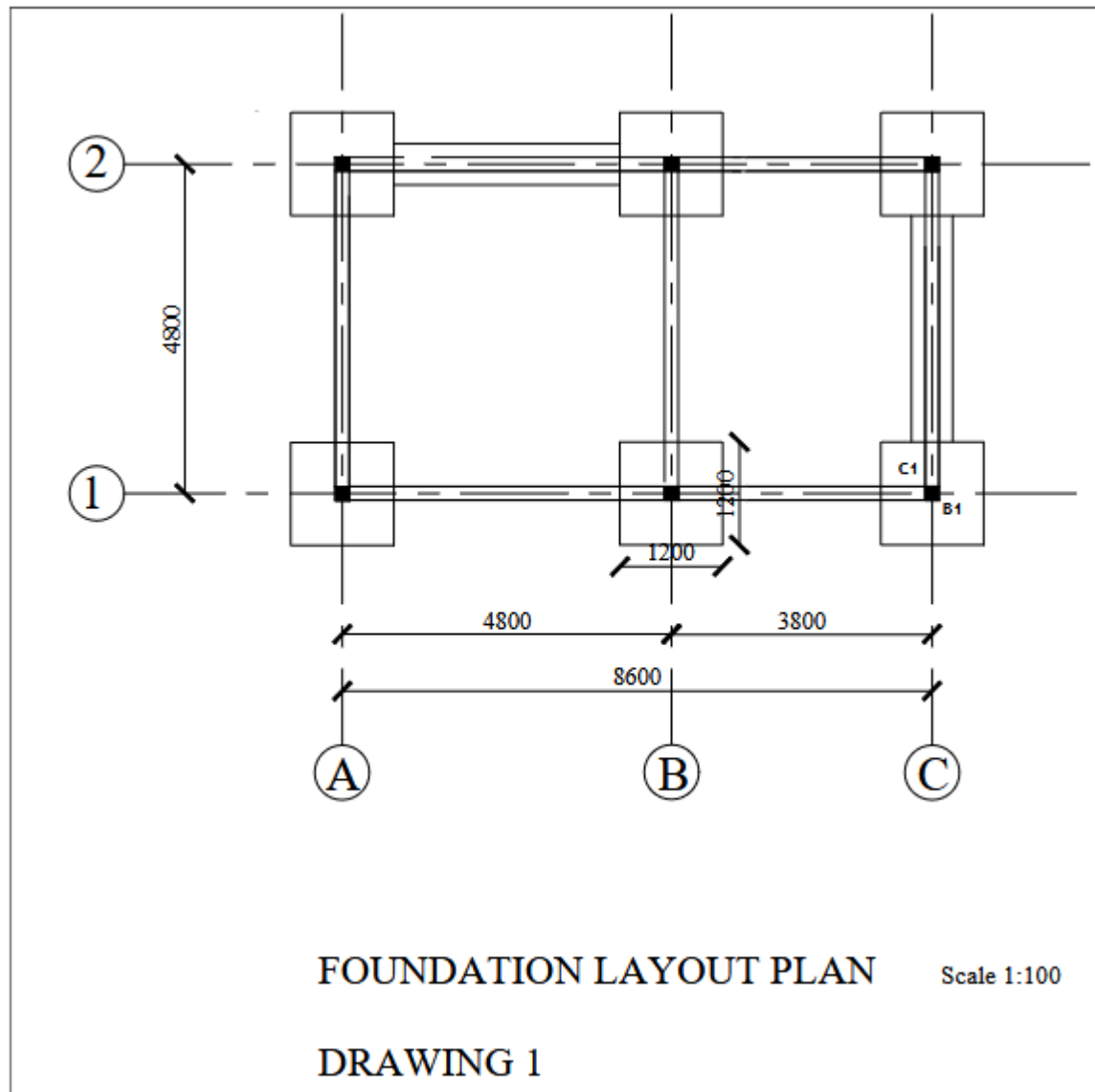
- a) Describe the AutoCAD workspace (3 Marks)
- b) Describe the user interface in AutoCAD (3 Marks)
- c) Explain the function of Zoom extents (3 Marks)
- d) Explain what a User Interface is in AutoCAD (3 Marks)
- e) Define Absolute coordinates and give a worked entry example (6 Marks)

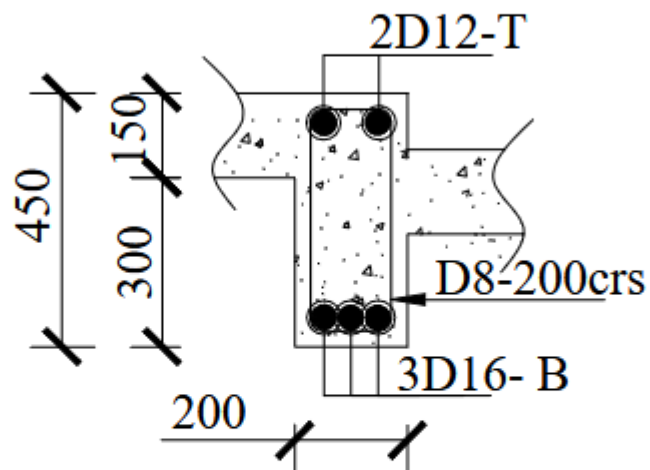
QUESTION FIVE (20 Marks)

Create layers and redraw the foundation plan shown in diagram 1, The Redrawn plan should include -foundation trenches, all missing dimensions and Text. Plot and save final drawing as a PDF document.

N/B all Columns are same size & Column Bases are same size.

(20 Marks)





BEAM 02

DRAWING 2