



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)

END OF SEMESTER 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 in AutoCAD

- i) Zoom command
 - ii) Scale command
 - iii) Offset command
- (6 Marks)

- b) There are 3 systems of entering Points in AutoCAD. Name and explain in detail How each system enters the points. (14 Marks)

QUESTION TWO (20 Marks)

- a) Define Absolute points and Relative Points
- b) Explain the function of Object snaps used in AutoCAD
- c) Explain the use of Selection sets in AutoCAD
- d) Which fields does one find maximum use of AutoCAD? (20 Marks)

QUESTION THREE (20 Marks)

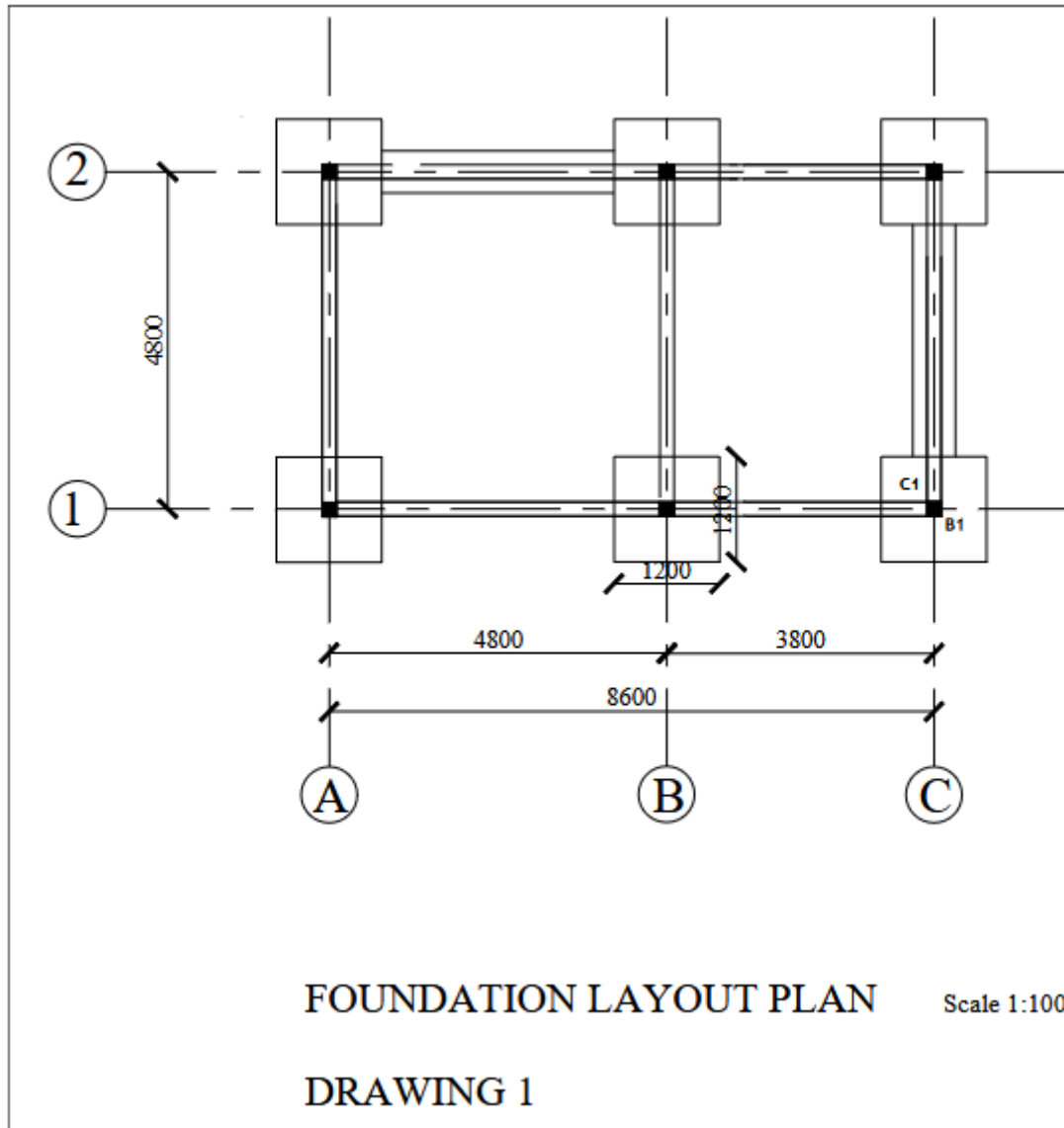
Create layers and redraw the foundation plan shown in diagram 1, The Redrawn plan should include foundation trenches, all missing dimensions and Text. Plot and save final drawing as a PDF document. (20 Marks)

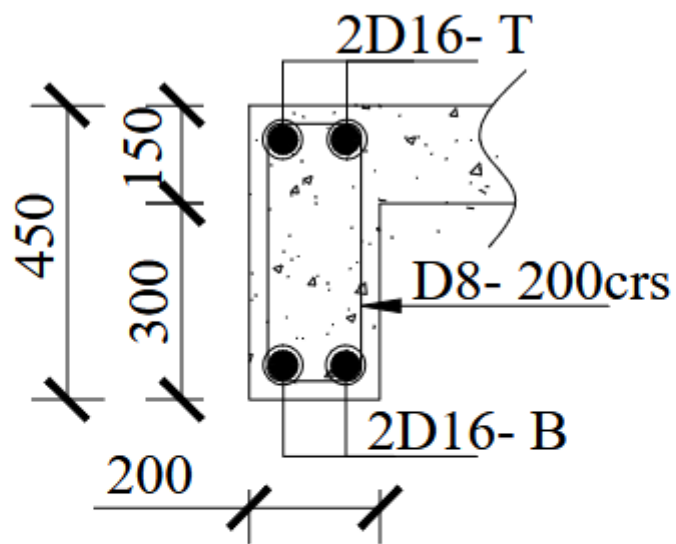
QUESTION FOUR (20 Marks)

- a) Differentiate between the Chamfer and Fillet commands in AutoCAD. (5 Marks)
- b) Outline the procedure for opening an existing drawing in AutoCAD. (5 Marks)
- c) Redraw the beam 01 in diagram 2, include missing reinforcements, text and Dimension. Plot and save final drawing as a PDF document. (10 Marks)

QUESTION FIVE (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)





BEAM 01

DRAWING 2