



THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A Constituent College of JKUAT)
Faculty of Engineering and Technology

DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

DIPLOMA IN ARCHITECTURE (DA10A)

DIPLOMA IN BUILDING & CIVIL ENGINEERING (DBC 10A)

EBC 2319: COMPUTER AIDED DESIGN (CAD II)

END OF SEMESTER EXAMINATION

SERIES: APRIL 2012

TIME: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*
- *Laptop/Desktop Computer*
- *Save your answer in AutoCAD using your FULL names followed by your student number.*

This paper consists of **FIVE** questions in **TWO** sections **I & II**

Answer question **ONE** plus any other **TWO** questions

Maximum marks for each part of a question are clearly shown

This paper consists of **SIX** printed pages

SECTION I (Compulsory – 20 marks)

Question 1 (20 marks)

- a) List down the steps involved when plotting or printing a drawing (10 marks)
- b) The two-view projection shows a stand consisting of two hexagonal prisms. Circular holes have been cut right through each face of the smaller hexagonal prism and rectangular holes with rounded ends have been cut right through the faces of the larger.
Construct a 3D model of the stand on a Three: Right view point (20 marks)

SECTION II (Answer any TWO questions – 40 marks)

Question 2 (20 marks)

The figure below is a floor plan of a three bed roomed house. Design the 3D view of the complete house and provide well design doors, windows and roof. (20 marks)

Question 3 (20 marks)

Design an intersecting roof for a 5000mm by 8000mm house providing all the necessary measurement of the following details (20 marks)

- (i) Ridge board
- (ii) Purlins
- (iii) Rafters
- (iv) Wall plate
- (v) Fascia board
- (vi) Gutter
- (vii) Ridge cap

Question 4 (20 marks)

Design the following:

- (i) The 1770mm x 1350mm windows shown below giving all necessary details (10 marks)
Include the walls and window sill as below

- (ii) The 900mm x 2100mm six panel doors shown below giving all the details (10 marks)
Include the walls , floor and skirting as shown below.

Question 5 (20 marks)

The figure below is a floor plan of a three bedroomed house. Design the 3D view of the complete house and provide well designed doors, windows and roof. (20 marks)