



MACHAKOS UNIVERSITY

University Examination 2019/2020

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

SECOND YEAR FIRST SEMESTER EXAMINATION FOR

DIPLOMA IN CIVIL ENGINEERING

BCECD 117: ENGINEERING DRAWING III

DATE: 5/12/2019

TIME: 8.30-10.30 AM

INSTRUCTIONS

Answer question one and any other two questions

QUESTION ONE (30 MARKS)

Q1 Fig 1 shows the floor plan of a proposed university canteen which is to have a pitched roof. Using a scale of 1:20, draw section "A-A" from the foundation to the roof using the following specifications;

Concrete foundation	-600x200mm
Foundation wall	-225thick
Oversite concrete	-100thick
Hardcore	-200 thick
Super structural wall	-150thick
Window B	-1000widex1000high
Lintel	-150x225high
Floor to ceiling height	-2600mm
Wall plate	-100x50mm
Rafters	-100x50mm
Ceiling joist	-50x50mm
Fascia board	-150x25mm
Purlins	-75x50mm
Gi- sheets	-26gauge

QUESTION TWO (20 MARKS)

Q2 Fig 2 shows two views of a wooden block and its perspective layout. Copy the layout and draw the block in ONE POINT perspective.

QUESTION THREE (20 MARKS)

Q3 Fig 3 shows a cast iron mould. Draw the following views in FIRST ANGLE projection;

- a) front elevation in the direction of arrow “F”
- b) End elevation in the direction of arrow “E”
- c) Plan

QUESTION FOUR (20 MARKS)

Fig 4 shows an isometric view of a component. Draw the following views in THIRD ANGLE projection;

- a) Front elevation
- b) Right end elevation
- c) plan

QUESTION FIVE (20 MARKS)

Fig 5 shows two views of a concrete gutter in first angle projection. Draw a two point perspective view of the gutter using the following information;

Distance GL-HL = 60

Distance HL-PPL = 50

Plan inclined at 30°, 60°

SP 60 to the right and 30 below HL