(*University of Choice*)

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY (MMUST)

MAIN CAMPUS
UNIVERSITY REGULAR EXAMINATIONS
2020/2021 ACADEMIC YEAR

SECOND YEAR FIRST SEMESTER EXAMINATIONS

FOR THE DEGREE OF BACHELOR OF SCIENCE IN CIVIL AND STRUCTURAL ENGINEERING

AND

BACHELOR OF TECHNOLOGY IN BUILDING CONSTRUCTION

COURSE CODE: CSE 215

COURSE TITLE: ENGINEERING DRAWING III

DATE: WEDNESDAY 10TH FEBRUARY 2021 TIME: 9.00 AM – 12.00 PM

INSTRUCTIONS:

1. This paper contains **FIVE** questions
2. Answer **QUESTION ONE** and any other **THREE** Questions
3. Marks for each question are indicated in the parenthesis.
4. Examination duration is **2 Hours**

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 3 Printed Pages. Please Turn Over.

SECTION A (10 MARKS)

Question One

a) Name the TWO types of Engineering drawings you know (2 marks)

b) State and explain the FOUR types of plan drawings (2 marks)

c) Name FOUR sectors in engineering that drawings are essential and a must in implementation of projects. (2 marks)

d) As built drawings are engineering drawings that are done at the end of a project. State FOUR importance of this drawings in a project. (2 marks)

e) State FOUR types of view drawings (2 marks)

SECTION B (30 MARKS)

QUESTION TWO (10 MARKS)

One of the components of a machine shaft is described as follows:

The shaft is circular and hollow. The length is 30cm, outside diameter of 150mm, the internal hollow section is 50mm, it has intermediate hole midway its length of 50mm and perpendicular to its length.

i. Draw the different views of the component (5mks)
ii. Draw the section views considering the horizontal and vertical planes (5mks)

QUESTION THEE (10 MARKS)

Draw site plan with the following features

i. A residential house with a length of 10m and width of 6m (2mks)
ii. Sanitary facilities (2mks)
iii. Tarmacked road neighborhood (2mks)
iv. The area is connected with water supply and sewerage (2mks)

QUESTION FOUR (10 MARKS)

Considering a water supply project, which is to be implemented by MMUST.

a. Name drawings required in implementing a typical water supply scheme having a treatment plant, pipe network and storage tanks. (3mks)

b. The project named above has the following details: 150mm diameter rising main from pump house of 2km length, 48m^3 storage tank raised at 9m from ground level, and a 100mm diameter distribution line to end point of 5km. Using your Engineering drawing knowledge and skills, choose your preferred scale and draw the layout of the water scheme for purposes of implementation. (7mks)

QUESTION FIVE (10 MARKS)

I. Explain the term CAD as used in drawing using software. (1mks)

II. Examples of CAD software you know (2mks)

III. ONE disadvantages and ONE advantages of CAD (2mks)

IV. With the aid of a sketch, show the items in the AutoCAD main window (5mks)