

UGANDA MARTYRS UNIVERSITY

FORT PORTAL CAMPUS

FACULTY: ENGINEERING AND APPLIED SCIENCE

DEPARTMENT: DEPARTMENT OF CIVIL ENGINEERING

COURSE CODE: DCE2104: COURSE NAME: CONSTRUCTION TECHNOLOGY III

FINAL ASSESSMENT

ACADEMIC YEAR 2023/2024 SEMESTER I

DIPLOMA IN CIVIL ENGINEERING

Date of Examination: 13TH DECEMBER 2023

Time allowed: 3 hours (9:00Am – 12:00Pm)

Instructions to Candidates:

Read the following before answering the examination questions.

- 1) This Exam contains **Six (6)** questions.
- 2) Attempt any **four (4)** questions of your choice.
- 3) All Questions carry equal marks.
- 4) Show all the necessary workings.
- 5) Start each question on a fresh page.
- 6) Read other instructions on the answer booklet.
- 7) Do **NOT** write anything on this question paper.

You should have the following in this Examination.

Answer Booklet, Drawing instruments, graph papers, non-programmable calculator and IEE Tables for the current ratings and voltage drops, 17th edition.

Question one

- a) What do you understand by the term doors in relation to construction technology?
(2marks)
- b) Discuss five main principles to be observed in the construction of timber doors.
(10marks)
- c) With the aid of neat sketches, draw the following types of joints used during the construction of timber doors.
(8marks)
 - I. Tongue and groove joint
 - II. Mortice and tenon joint

Question two

- a) Define the window in relation to the building industry
(2marks)
- b) Explain three basic functions of Windows
(6marks)
- c) Discuss six functional requirements of Windows
(12marks)

Question three

- a) With the aid of neat sketches, discuss the following types of doors (6marks@)
 - I. Ledged match board doors
 - II. Ledged and braced match-boarded doors
 - III. Framed ledged and braced match doors
- b) Explain the term glazing
(2marks)

Question Four

- a) Distinguish glass from glazing
(2marks)
- b) Discuss the following types of glass
(6marks@)
 - I. Drawn glass
 - II. Float glass
 - III. Rolled and rough-cast glass

Question Five

- a) Define the term iron mongery
(2marks)
- b) Mention and explain at least three types of nails used in the building industry.
(6marks)
- c) Discuss the following types of screws
(12marks)
 - i. Roundhead
 - ii. Recessed head
 - iii. Coach screws

Question six

- a) Differentiate plastering from rendering (2marks)
- b) Explain the following types of plaster (6marks)
- I. Lime plaster
 - II. Gypsum plaster
 - III. Cement plaster
- c) As a civil engineer you have been requested by your municipal engineer to plaster junior staff quarters, from your experience obtained during industrial training, discuss the procedures to be followed during plastering (12marks)

END