



MACHAKOS UNIVERSITY

University Examinations for 2021/2022 Academic Year

DIRECTORATE OF TVET

SECOND YEAR FIRST TERM EXAMINATION FOR

CERTIFICATE IN BUILDING TECHNOLOGY

GENERAL BUILDING CONSTRUCTION II

DATE: 25/7/2022

TIME: 8:30 – 11:30 AM

INSTRUCTIONS

- *This paper consists of **Five** questions.*
- *Answer **All** questions*
- *Maximum marks for each part of the question are as shown.*

QUESTION ONE

- a) List two materials used for making window frames (2 marks)
- b) With the aid of a labelled sketch, draw a standard wood casement window with one fixed light, casement sash, one vent light (8 marks)
- c) State four functions of a door (4 marks)
- d) Sketch and draw a wooden door frame (6 marks)

QUESTION TWO

- a) Sketch timber a staircase to include the following details (10 marks)
- Newel post
 - Baluster
 - Hand rail
 - Tread
 - Riser
 - Landing
 - String
 - Waist
- b) State four functional requirements of a staircase (4 marks)

- c) With the aid of sketches, describe three types of staircases (6 marks)

QUESTION THREE

- a) i) define the term roof (1 mark)
ii) with the aid of sketches, differentiate between flat and pitched roofs (8 marks)
- b) Describe three functional requirements of a roof (5 marks)
- c) With reference to a roof truss, draw and label members of a roof (6 marks)

QUESTION FOUR

- a) i) define the following terms (8 marks)
- I. Sheet glass
 - II. Putty
 - III. Beads
 - IV. Glazing
 - V. Storm drains
- ii) state two window furniture (2 marks)
- b) Describe the procedure of constructing pavings in external works (10 marks)

QUESTION FIVE

- a) Describe the following type of glass (4 marks)
- i. Translucent glass
 - ii. Wired glass
- b) define the term landscaping (2 marks)
- c) describe the following landscaping plants (6 marks)
- i. Shrubs
 - ii. Grasses
 - iii. Climbers
- d) Sketch and label the following types of doors (8 marks)
- i. Ledged and braced door
 - ii. Paneled door