



# MACHAKOS UNIVERSITY

University Examinations for 2020/2021

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

SECOND YEAR SECOND TERM EXAMINATION FOR

CERTIFICATE IN BUILDING TECHNOLOGY

GENERAL BUILDING CONSTRUCTION 2

DATE: 30/8/2021

TIME: 8:30 – 11:30 AM

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## INSTRUCTIONS:

Answer the following five questions.

1. (a) Explain the following terms as used in doors;  
Jamb, shutter, reveal, panel, transoms. (5 marks)
- (b) Outline five rules to be observed when deciding on the location of doors. (5 marks)
- (c) Identify the six classes of doors with regard to the working principles. (3 marks)
- (d) With the aid of simple sketches, differentiate between rolling and collapsible steel doors. (7 marks)
2. (a) State three classes of doors based on material of use, giving one example in each case. (6 marks)
- (b) Sketch and label the rear elevation of a battened and braced door. (8 marks)
- (c) Outline any three construction details that need to be considered in construction of panel doors. (6 marks)
3. (a) Identify four types of joints used to join the head and post of a wooden Frame (4 marks)
- (b) State five factors considered in selection of size, shape, location and number of windows. (5 marks)
- (c) State ANY three classifications of windows. (3 marks)

- (d) Name and sketch ANY four types of hinges used for doors and windows. (8 marks)
4. (a) Sketch and label the front elevation of a glazed window. (10 marks)  
(b) With the aid of a simple sketch, show the location of the following types of windows.-gable window,  
-sky light.
- (c) sketch and label the sectional plan of a corner steel window. (6 marks)
5. (a) Explain the term "stair". (2 marks)  
(b) With the aid of a neat sketch, illustrate ten parts of a wooden stair. (10 marks)  
(c) Describe the four types of stairs. (4 marks)
4. State three materials used in stairs construction. (3 marks)