

**MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY
(MMUST)**

**UNIVERSITY EXAMINATIONS
2012/2013 ACADEMIC YEAR**

**FIRST YEAR SECOND SEMESTER EXAMINATIONS
FOR THE DIPLOMA IN CIVIL AND STRUCTURAL ENGINEERING**

COURSE CODE: DCE O56

COURSE TITLE: WORKSHOP PRACTICE I

DURATION: 3 HOURS

INSTRUCTIONS TO CANDIDATES:

Answer ALL FIVE questions. Marks for each question are indicated in the parenthesis.

Question one (20maks)

- (a) Explain why masonry construction is commonly used in the world. (5marks)
- (b) What is the meaning and purpose of brick bonding? (5 marks)
- (c) Distinguish between Flemish bond and English bond. (5marks)
- (d) Describe five types of bricks and clearly indicate where they are commonly used(5marks)

Question two (20maks)

- (a) Explain factors that influence the degree of compaction of concrete blocks. (5marks)
- (b) Explain how you can ensure production of good quality blocks. (5marks)
- (c) Explain the process of laying tiles in a rectangular room. (10 marks)

Question three (20maks)

- (a) Describe three types of earth moving and excavation plants. (6 marks)
- (b) Distinguish between Tabular and patent scaffolds. (3 marks)
- (c) Outline safety precaution measures to be observed while working with scaffolds. (5marks)
- (d) Discuss the importance of plastering masonry walls. (6 marks)

Question four (20maks)

- (a) Explain the meaning of seasoning of timber and give four reasons why it is necessary to season timber. (4 marks)
- (b) Distinguish between air seasoning and kiln seasoning (4 marks)
- (c) What are the advantages of kiln seasoning over air seasoning? (3 marks)
- (d) What are the factors that influence the rate of drying in kiln seasoning of timber? How are these factors controlled in the kiln? (5 marks)
- (e) Describe two natural defects of timber (4 marks)

Question five (20maks)

- (a) With aid of sketches describe five types of timber joints, clearly stating where they are commonly used (10 Marks)
- (b) Describe three types of carpentry and joinery saws (6 Marks)
- (c) State how you can take care and maintain carpentry and joinery saws (4 marks).