



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF BUILDING & CIVIL ENGINEERING

UNIVERSITY EXAMINATION FOR:
DIPLOMA IN BUILDING AND CIVIL ENGINEERING

EBC 2104 : WORKSHOP TECHNOLOGY AND PRACTICE II

END OF SEMESTER EXAMINATION

SERIES: DECEMBER 2016

TIME: 2 HOURS

DATE: 22 Dec 2016

Instructions to Candidates

You should have the following for this examination

- Answer Booklet, examination pass and student ID*
- Drawing instruments.*

This paper consists of five questions.

Attempt any THREE questions.

Do not write on the question paper.

Question One

During a workshop practice activity students were required to prepare mortar by hand mixing

- i. Discuss the possible hazards that the students could likely be exposed to. **(5 marks)**
- ii. List at least **five** personal protective equipment (PPEs) and any **five** safety measures that you would advise for the success of the activity **(10 marks)**
- iii. Discuss the various tools and equipment required for this activity **(5 marks)**

Question Two

- a) With the aid of a diagram discuss **five** components of a scaffolding **(10 marks)**
- b) State the uses of the following scaffolding fittings **(10marks)**
 - i. Reveal pin
 - ii. Base plate
 - iii. Swivel coupler
 - iv. Double coupler
 - v. Putlog coupler

Question Three

- a) With the aid of sketches, discuss the following commonly used bonds in masonry **(12 marks)**
 - i. Flemish bond
 - ii. Stretcher bond
 - iii. English bond
- b) Name and discuss the uses any **four** commonly used tools or equipment in a carpentry and joinery workshop **(8 marks)**

Question Four

Sketch the following types of wood joints

- i. Butt joint
- ii. Scabbed joint
- iii. Half lap joint
- iv. Dado and rabbet joint
- v. Mortise and tenon joints **(20 marks)**

Question Five

- a) Define finishing in relation to carpentry and joinery **(2 marks)**
- b) Discuss four major purposes of finishes in carpentry works **(8 marks)**
- c) Discuss the following types of finishes stating where they are commonly used **(10 marks)**
 - i. Opaque wood finish
 - ii. Transparent wood finish