



THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A Constituent College of JKUAT)

(A Centre of Excellence)

Faculty of Engineering & Technology

DEPARTMENT OF BUILDING & CIVIL ENGINEERING

CERTIFICATE IN BUILDING CONSTRUCTION

EBC 1127: WORKSHOP TECHNOLOGY I

SPECIAL/SUPPLEMENTARY EXAMINATION

SERIES: OCTOBER 2012

TIME: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*

This paper consist of **FIVE** questions in **TWO** sections **A & B**
Answer question **ONE (COMPULSORY)** and any other **TWO** questions
Maximum marks for each part of a question are as shown
This paper consists of **THREE** printed pages
SECTION A (Compulsory)

Question One (30 marks)

- a) (i) Name **THREE** backsaws and handsaws used in woodwork **(6 marks)**
(ii) With the aid of sketches, differentiate between a tongued and grooved joint and a rebated joint **(4 marks)**
- b) (i) Name **THREE** types of fittings and joints that may be used in plumbing works **(6 marks)**
(ii) Sketch and state the use of a reamer **(4 marks)**
- c) (i) What are the **FOUR** purposes of a bond in brickwork? **(8 marks)**
(ii) State the difference between plastering and rendering. **(2 marks)**

SECTION B (Answer any TWO questions)

Question Two (20 marks)

- a) State **FOUR** requirements of a good mortar **(4 marks)**
- b) With the aid of sketches, differentiate between a hollow block and cellular block **(6 marks)**
- c) Describe the uses of the following fittings in scaffolding. **(10 marks)**
- i) Swivel coupler
 - ii) Double coupler
 - iii) Base plate
 - iv) Reveal pin
 - v) Joint pin

Question Three (20 marks)

- a) Briefly differentiate between carpentry and joinery works giving an example of each. **(4 marks)**
- b) Name **THREE** backsaws and handsaws **(6 marks)**
- c) With the aid of sketches, describe and label a beveledged chisel **(5 marks)**
- d) Name and sketch **FIVE** methods of widening joints in woodwork **(5 marks)**

Question Four (20 marks)

- a) State the uses of each of the following tools: **(8 marks)**
- i) Hack saw
 - ii) Wheel cutter
 - iii) Auger
 - iv) Reamer

- b) Name **FOUR** sources of drinking water. (4 marks)
- c) Name **FOUR** types of sheet metal joints (4 marks)
- d) Give **FOUR** safety rules as regards to a tidy workshop. (4 marks)

Question Five (20 marks)

- a) List **FOUR** examples of power tools used by a plumber. (4 marks)
- b) Give typical examples of defects that are normally found on the following tools:
- i) Cold chisel
 - ii) Hammer
 - iii) File
- c) Name **THREE** bench planes used in woodwork stating the use of each. (6 marks)
- d) With the aid of sketch, describe a wood float (4 marks)