



TECHNICAL UNIVERSITY OF MOMBASA
**Faculty of Engineering &
Technology**

DEPARTMENT OF BUILDING & CIVIL ENGINEERING
DIPLOMA IN BUILDING & CIVIL ENGINEERING (DBCE 13J)

EBC 2105: WORKSHOP TECHNOLOGY II

SPECIAL/SUPPLEMENTARY EXAMINATION

SERIES: OCTOBER 2013

TIME ALLOWED: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*

This paper consists of **FIVE** questions.

Answer any **THREE** questions

Maximum marks for each part of a question are as shown

This paper consists of **THREE** printed pages

Question One

- a) List FIVE types of sanitary appliances. (5 marks)
- b) With the aid of sketches, explain the eating system in direct hot water domestic system (8 marks)
- c) With the aid of a sketch, explain the direct domestic cold water system (7 marks)

Question Two

- a) With the aid of a sketch, explain the welding of TWO metals using Gas welding. (10 marks)
- b) Sketch and label the following:
 - (i) Manhole (MH)
 - (ii) Soak pit
 - (iii) Single stack (10 marks)

Question Three

- a) Sketch the following:
 - (i) Plain nipple
 - (ii) Straight socket
 - (iii) Female and female elbow
 - (iv) Un equal tee ("T")
 - (v) Pitcher (10 marks)
- b) With the aid of a sketch, explain the bending of a small diameter plastic pipe using a plate. (10 marks)

Question Four

- a) State FIVE advantages of screws over nails (5 marks)
- b) Sketch the following hinges"
 - (i) Parliament
 - (ii) Rising
 - (iii) Tee
 - (iv) Strap
 - (v) Butt (10 marks)
- c) State FIVE employment opportunities for a carpenter (5 marks)

Question Five

- a) Sketch and state where each of the following timber joints may be used:
 - (i) Lap

- (ii) Bird's mouth
- (iii) Mortise and Tenon
- (iv) Loose Tongue and Grooned (10 marks)

b) Describe the following:

- (i) Starch glue
- (ii) Casein glue (7 marks)

c) Differentiate shelf life from pot life of glue (3 marks)