



TECHNICAL UNIVERSITY OF MOMBASA

**SCHOOL OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF ARCHITECTURE AND BUILT ENVIRONMENT**

UNIVERSITY EXAMINATION FOR:

DIPLOMA IN ARCHITECTURE

DIPLOMA IN QUANTITY SURVEYING

EBC 2101: WORKSHOP TECHNOLOGY AND PRACTICE 1

SPECIAL / SUPPLEMENTARY EXAMINATIONS

SERIES: APRIL 2025

TIME 2 HOURS

Instructions to candidates

You should have the following for this examination

- Answer booklet
- Examination pass
- Student ID

This paper consists FIVE questions. Answer THREE questions

Do not write on the question paper.

QUESTION ONE (20 Marks)

a) Explain any FOUR causes of accidents in a workshop. (8 Marks)

- b) With the aid of a sketch outline the direct cold water supply system. (8 Marks)
- c) State any FOUR effects of a poor drainage system to the environment. (4 Marks)

QUESTION TWO (20 Marks)

- a) Outline FOUR types of pipe joints used in plumbing. (8 Marks)
- b) State THREE advantages of the following pipes
 - i) Galvanized steel
 - ii) Pvc pipes (6 Marks)
- c) Explain the purpose of the following sanitary appliances
 - i) Bidet
 - ii) Water closet
 - iii) Sink (6 Marks)

QUESTION THREE(20 Marks)

- a) With the aid of a sketch outline the direct hot water cylinder system. (8 Marks)
- b) Name TWO tools used for EACH of the following tasks
 - i) Making female threads
 - ii) Making male threads
 - iii) Removing burrs from cut pipes
 - iv) Tightening/untightening fittings
 - v) Gripping pipes while working on them
 - vi) Bending pipes (6 marks)
- c) Outline TWO methods in which traps may lose their water seal (6 marks)

QUESTION FOUR

- a) Sketch TWO tools used for the following tasks in plumbing
 - i. Marking
 - ii Measuring angles

(6marks)

b) Sketch the following tools and explain their use

- i. Plunger
- ii. Hacksaw
- iii. Pipe wrench

(6 marks)

c) Name FOUR items of attire worn in a workshop and explain the purpose of each item

(8

marks)

QUESTION FIVE

a) State FOUR conditions that require the installation of a manhole in a sewer system

(4 marks)

b) Sketch four types of ordinary traps used with sanitary appliances

(8

marks)

c) Sketch and state the use of the following pipe fittings

- i. Wye tee
- ii. Female-male 90° elbow
- iii. Straight tee
- iv. Cup

(8marks)