



**THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE**

***Faculty of Engineering & Technology***

**DEPARTMENT OF CIVIL AND BUILDING ENGINEERING**

**CERTIFICATE IN CONSTRUCTION TECHNICIAN II (09A)**

**EB 1108 CONSTRUCTION TECHNOLOGY**

**END OF SEMESTER II EXAMINATIONS**

**APRIL/MAY 2010 SERIES**

**TIME: 2 HOURS**

**Instructions to Candidates**

You should have the following for this examinations:

- Answer booklet
- Pocket calculator

This paper consists of **FIVE**, Questions in **TWO** Sections 'A' and 'B'.  
Answer Question **ONE** in Section **A** and choose **TWO** Questions from Section **B**.

Maximum marks for each part of a question is as shown.

**SECTION A - COMPULSORY**

**Question ONE**

- (a). Sketch the following window furniture.
- (i). Extrusion Hinges
  - (ii). Fasteners
  - (iii). Pin-stay
- (12 Marks)**
- (b). Sketch and label the following parts of a roof (a). Hipped end, Gable end, Hip rafters, Valley rafter, Jack rafter, common rafter, purlins, verge. Fascia board.
- (8 Marks)**
- (c). With the aid of a line diagram describe indirect cold water system.
- (10 Marks)**

**SECTION B - ANSWER ANY TWO QUESTIONS.**

**Question TWO**

- (a). With the aid of a sketch describe the following timber connectors:
- (i). Toothed plate
  - (ii). Split ring
  - (iii). Truss plates
- (12 Marks)**
- (b). With the aid of sketches describe the following types of stairs.
- (i). Quarter turn
  - (ii). Half-turn with winders.
- (10 Marks)**

**Question THREE**

- (a). With the aid of sketches, describe the following:
- (i). Door frames
  - (ii). Door lining
- (10 Marks)**
- (b). Describe the procedure of hanging/fixing.
- (4 Marks)**
- (c). Sketch and detail:
- (i). Narrow butt hinge
  - (ii). Parliament hinge
  - (iii). Mortise lock
- (6 Marks)**

#### **Question FOUR**

- (a). State the **FIVE** performance requirements of windows. **(5 Marks)**
- (b). With the aid of a line sketch, describe the opening of horizontal sash window. **(4 Marks)**
- (c). State:
- (i). **SIX** advantages of louvers.
  - (ii). **FIVE** disadvantages of louvers **(11 Marks)**

#### **Question FIVE**

- (a). State the precaution in using scaffolding. **(5 Marks)**
- (b). With the aid of a sketch, describe independent scaffold. **(9 marks)**
- (c). Sketch the following scaffold detail:
- (i). Metal base plate joint with standard.
  - (ii). Standard, ledger and Transom joint. **(6 Marks)**