



THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

Faculty of Engineering & Technology

DEPARTMENT OF CIVIL AND BUILDING ENGINEERING

DIPLOMA IN ARCHITECTURE
DIPLOMA IN CIVIL ENGINEERING
DIPLOMA IN BUILDING
DIPLOMA IN BUILDING & CIVIL
CERTIFICATE TECHNICIAN I
CERTIFICATE IN ARCHITECTURE

(DA10/DC10/DB10/DBC10/CTI09/CA10)

EB 2127 : WORKSHOP TECHNOLOGY I

END OF SEMESTER EXAMINATIONS

APRIL/MAY 2010 SERIES

TIME: 3 HOURS

Instructions to Candidates

You should have the following for this examination:

- Answer booklet
- Scientific calculator

This paper consists of **FIVE** Questions.

Answer **THREE** Questions.

Question **ONE** is **COMPULSORY**

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

SECTION - PLUMBING

Question ONE

- (a). State the use of each of the following tools:
- (i). Wheel cutter
 - (ii). Hacksaw
 - (iii). Reamer
 - (iv). File
 - (v). Mallet
 - (vi). Pipe wrench
- (6 Marks)**
- (b). Sketch and label the parts of a water stand pipe. **(6 Marks)**
- (c). Differentiate the following:
- (i). Threads from burrs.
 - (ii). Welding from soldering
 - (iii). Galvanising from painting
- (6 Marks)**
- (d). Outline the importance of plumbing in building industry. **(12 Marks)**

Question TWO

- (a). Sketch the following pipe fittings:
- (i). Cap
 - (ii). Hexagonal ripple
 - (iii). Cross
 - (iv). Male-female elbow
 - (v). Pitcher
- (10 Marks)**
- (b). State where each of the following pipe may be used:
- (i). Asbestos cement
 - (ii). Cast iron
 - (iii). Copper
 - (iv). Steel
 - (v). Reinforced concrete
- (10 Marks)**

SECTION - MASONRY

Question THREE

- (a). State the use of each of the following tools:
- (i). Plumb bob
 - (ii). Steel float
 - (iii). Wooden float
 - (iv). Mallet
 - (v). Frenchman
 - (vi). Jointer
- (6 Marks)**
- (b). State **FOUR** areas where a mason may seek for employment. **(4 Marks)**
- (c). With the aid of a sketch, outline the procedure of a plastering a block wall. **(10 Marks)**

Question FOUR

- (a). State **FOUR** reasons for bonding a wall. **(4 Marks)**
- (b). Sketch the mode of failure of an unbounded brick wall. **(6 Marks)**
- (c). Sketch the following:
- (i). Queen closer
 - (ii). King closer
 - (iii). Half bat
 - (iv). Tothing
 - (v). Racking back
- (10 Marks)**

SECTION - CARPENTRY

Question FIVE

- (a). State **SIX** precaution (care) to be observed when using tools in a workshop. **(6 Marks)**
- (b). State the use of the following tools:
- (i). Compass saw
 - (ii). Dove tail saw
 - (iii). Rebate plane
 - (iv). Bullnose plane
 - (v). Mallet
 - (vi). File
- (6 Marks)**

(c). Sketch the following timber joints:

- (i). Bird's mount
- (ii). Tongue and groove

(4 Marks)

(d). Sketch a roof and label the following:

- (i). Putin
- (ii). Ridge
- (iii). Rafter

(4 Marks)