



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

DEPARTMENT OF BUILDING & CIVIL ENGINEERING
CERTIFICATE IN BUILDING & CIVI ENGINEERING (CTI 12S)

EBC 1208: CONSTRUCTION MATERIALS II

END OF SEMESTER EXAMINATION

SERIES: APRIL 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) Define the following terms:
- (i) Paint
 - (ii) Varnish
- (4 marks)**
- b) Explain **FOUR** reasons of painting. **(8 marks)**
- c) Briefly explain the process of painting new wood work. **(8 marks)**

Question Two

- a) Define the following terms:
- (i) Glass
 - (ii) Cullet
- (4 marks)**
- b) Outline **FOUR** main ingredients used in glass manufacture and state their functions. **(8 marks)**
- c) Briefly describe the following treatment to glass:
- (i) Annealing
 - (ii) Tempering
- (6 marks)**
- d) State **FOUR** glass products **(2 marks)**

Question Three

- a) Briefly describe the **TWO** classes of plastics. **(6 marks)**
- b) State **SIX** properties of plastics **(6 marks)**
- c) With the aid of a sketch, briefly describe the injection moulding method of forming plastics. **(8 marks)**

Question Four

- a) Differentiate the following:
- (i) Bitumen and tar
 - (ii) Rock asphalt and laved asphalt
 - (iii) Cut back bitumen and straight run bitumen
- (12 marks)**
- b) State **FOUR** properties of bituminous materials. **(4 marks)**
- c) (i) State the ingredients of mastic asphalt
- (4 marks)**
- (ii) State **THREE** uses of mastic asphalt

Question Five

- a) Briefly describe the following types of glass:
- (i) Laminated glass
 - (ii) Float glass
 - (iii) Coloured glass** **(9 marks)**
- b) State **THREE** reasons which may cause loss of adhesion of paint in woodwork. **(3 marks)**
- d) State **FOUR** uses of bituminous materials. **(4 marks)**
- e) Distinguish between plastics and rubbers. **(4 marks)**