



THE TECHNICAL UNIVERSITY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF BUILDING & CIVIL ENGINEERING

CERTIFICATE IN BUILDING & CIVIL ENGINEERING (CT II 12M)

EBC 1102: CONSTRUCTION MATERIALS II

SPECIAL/SUPPLEMENTARY EXAMINATION

SERIES: FEBRUARY 2013

TIME: 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 **TWO** printed pages

Question One

- a) Outline **FOUR** major ingredients of an ordinary glass **(6 marks)**
- b) Outline the following treatment to glass:
(i) Annealing
(ii) Tempering **(4 marks)**
- c) State **SIX** properties of glass **(6 marks)**
- d) Differentiate “wired glass” from “laminated glass”. **(4 marks)**

Question Two

- a) With the aid of a sketch, briefly describe the continuous extrusion method of forming plastics. **(10 marks)**
- b) With the aid of sketches, briefly describe the cylinder blowing method of forming sheet glass. **(10 marks)**

Question Three

- a) Differentiate between:
(i) Bitumen and tar
(ii) Straight run bitumen and cutback bitumen
(iii) Pitch and bitumen emulsion **(12 marks)**
- b) State **EIGHT** general properties of bituminous materials. **(8 marks)**

Question Four

- a) (i) Briefly describe the **TWO** major classes of plastics.
(ii) Give **TWO** examples of plastics in the classes described in (a) (i) **(10 marks)**
- b) (i) Name **TWO** materials added during manufacture of plastics.
(ii) State **ONE** reason why each of additives in b(i) is added to the plastics. **(4 marks)**
- c) State **SIX** general properties of plastics. **(6 marks)**

Question Five

- a) State **FOUR** reasons of painting. **(4 marks)**
- b) Briefly explain the procedure of painting new woodwork. **(8 marks)**
- c) Briefly describe **TWO** methods of removing old paint **(4 marks)**

d) State **FOUR** ingredients in an oil paint

(4 marks)