



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

DEPARTMENT OF BUILDING & CIVIL ENGINEERING
CERTIFICATE IN BUILDING & CIVIL ENGINEERING (CBCE 14M)

EBC 1205: BUILDING TECHNOLOGY II

END OF SEMESTER EXAMINATION

SERIES: APRIL 2015

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 of the **FIVE** questions

Maximum marks for each part of a question are as shown

Use neat, large and well labeled diagrams where required

This paper consists of **THREE** printed pages

Question One

- a) Define the following terms as used in fireplace and chimney: **(5 marks)**
- (i) Hearth
 - (ii) Jambs
 - (iii) Fire place
 - (iv) Fire back
- b) Draw and label a section of a chimney stack **(10 marks)**
- c) State FIVE functional requirements of a chimney **(5 marks)**

Question Two

- a) Outline FIVE types of paints **(5 marks)**
- b) Explain the following elements of paints: **(5 marks)**
- (i) Base
 - (ii) Vehiecle
 - (iii) Pigment
 - (iv) Thinner
 - (v) Prier
- c) Explain FIVE characteristic of oil paints **(5 marks)**
- d) Briefly explain process of painting **(5 marks)**

Question Three

- a) Explain functions of suspended ceiling **(6 marks)**
- b) State THREE types of suspended ceiling **(5 marks)**
- c) Define the term dry linning and give THREE advantages of its use **(5 marks)**
- d) Discuss the following forms of a framed structures: **(6 marks)**
- (i) Shed frame
 - (ii) Building frame
 - (iii) Rigid frame

Question Four

- a) What are the advantages and disadvantages of steel portal frames **(8 marks)**
- b) Outline FIVE advantages of a solid timber portal frame **(5 marks)**
- c) Define the term underpinning **(1 mark)**

d) Explain THREE situations where underpinning is applied

(6 marks)

Question Five

a) Sketch a mobile scaffold and show all its members

(10 marks)

b) Draw a detailed beam form work

(10 marks)