



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

DEPARTMENT OF BUILDING & CIVIL ENGINEERING

DIPLOMA IN ARCHITECTURE

ECV 2102: CONSTRUCTION MATERIALS 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) Describe the following process of forming plastics:
- (i) Compression moulding
 - (ii) Transfer moulding
 - (iii) Injection moulding
 - (iv) Slush moulding
 - (v) Blow moulding
 - (vi) Rotational moulding
- (9 marks)
- b) Describe TWO methods of joining plastics (5 marks)
- c) State the common tests carried out on plastics (6 marks)

Question Two

- a) Describe the THREE main classifications of paints (6 marks)
- b) Describe the main composition of a paint formulation (9 marks)
- c) State the common types of paint defects (5 marks)

Question Three

- a) Describe the properties of Bitumen and Bituminous products (6 marks)
- b) Describe the following types of Bituminous products: (9 marks)
- (i) Bitumen
 - (ii) Coal Tar
 - (iii) Pitch
- (9 marks)
- c) State the common uses of Bituminous materials in the construction industry (5 marks)

Question Four

- a) State the THREE main types of glass (6 marks)
- b) Describe the following types of glass products in the construction industry (6 marks)
- (i) Laminated glass
 - (ii) Double glazing units
 - (iii) Glass blocks
- (6 marks)
- c) Describe the following forms of glass works:
- (i) Toughening
 - (ii) Engraving
 - (iii) Sand blasting
 - (iv) Chipping
- (8 marks)

Question Five

a) Describe the following types of lime:

(i) High calcium lime

(ii) Magnesium lime

(iii) Hydraulic lime

marks)

(6

b) Describe the manufacturing process of lime

(5 marks)

c) Describe the following types of mortars:

(i) Portland mortar

(ii) Plasticizer mortar

(iii) Masonry mortar

marks)

(9