



THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A Constituent College of JKUAT)

Faculty of Engineering & Technology

DEPARTMENT OF BUILDING & CIVIL ENGINEERING

**DIPLOMA IN BUILDING & CIVIL ENGINEERING
[Institutional Based Programmes]**

EBC 2323: BUILDING TECHNOLOGY V

END OF SEMESTER EXAMINATION

SERIES: DECEMBER 2012

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 **THREE** printed pages

Question One (30 marks)

- a) Explain **TWO** methods of maintaining building. **(8 marks)**
- b) State **FOUR** reasons for maintaining buildings. **(4 marks)**
- c) Outline the procedure of writing a maintenance survey report. **(8 marks)**

Question Two (20 marks)

- a) State **FIVE** factors that will encourage fire in a building. **(5 marks)**
- b) Define the following terms related to fire.
 - (i) Fire grading
 - (ii) Fire load
 - (iii) Fire stop
 - (iv) Fire protection
 - (v) Fire intensity **(5 marks)**
- c) Explain the uses of fire fighting equipments. **(10 marks)**

Question Three (20 marks)

- a) Explain the following defects in a lecture hall.
 - (i) Dead spots
 - (ii) Formation of echoes
 - (iii) Reverberation **(10 marks)**
- b) Explain the following modes of sound transmission.
 - (i) Impact
 - (ii) Air born **(6 marks)**
- c) Define the following:
 - (i) Reverberation time
 - (ii) Absorbent **(4 marks)**

Question Four (20 marks)

- a) Explain the properties of the following thermal insulating materials.
 - (i) Quits
 - (ii) Boards
 - (iii) Insulating plaster
 - (iv) Loose fills
 - (v) Light weight concrete **(10 marks)**
- b) Define the following:

- (i) Surface resistance
 - (ii) Thermal resistance
 - (iii) Thermal resistivity
 - (iv) Thermal conductivity
- (10 marks)**

Question Five (20 marks)

- a) With the aid of sketches, describe the construction of a car park. **(10 marks)**

- b) Explain the following:
 - (i) Land scaping
 - (ii) Fencing

(10 marks)