



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF BUILDING & CIVIL ENGINEERING

UNIVERSITY EXAMINATION FOR:

DIPLOMA IN BUILDING AND CIVIL ENGINEERING

(INSTITUTION BASED EXAMINATION)

EBC 2204: BUILDING TECHNOLOGY II

SERIES: MARCH 2017

TIME: 2 HOURS

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

-Drawing instruments

This paper consists of **FIVE** questions. Attempt any **THREE** questions

Do not write on the question paper

Mobile Phones are NOT allowed inside the examination room

QUESTION ONE

(a) (i) Sketch and label a cross section of fireplaces, flues and chimneys.

(ii) Explain the functions of the elements in the sketch 1 (a) (i) (10 marks)

(b) Briefly describe the procedure adopted when inspecting a smoky chimney.

(10 marks)

QUESTION TWO

- (a) Explain the procedure of painting:-
(i) New woodwork
(ii) Old woodwork (4 marks)
- (b) Explain the following paint defects and their remedies
(i) Cissing
(ii) Flaking
(iii) Discolorations (6 marks)
- (c) (i) State THREE requirements to be fulfilled by suspended ceiling
(ii) Sketch and label parts of open ceiling (10 marks)

QUESTION THREE

- (a) State the principle factors influencing the type of material used for a particular framed construction. (6 marks)
- (b) Sketch and label shoulder connection of concrete portal frame. (6 marks)
- (c) State TWO advantages of precast concrete portal frame. (2 marks)
- (d) State THREE ways of fire protection to steel frame. (6 marks)

QUESTION FOUR

- (a) Explain the following functional requirements of a wall
(i) Strength and stability
(ii) Fire insulation
(iii) Sound insulation (8 marks)
- (b) State SIX building code requirements of formwork. (6 marks)
- (c) Sketch and label a cross section of typical beam and slab formwork. (6 marks)

QUESTION FIVE

- (a) State FOUR functional requirements of upper floors. (6 marks)
- (b) With the aid of a sketch describe the construction of partially self-centering upper floors. (8 marks)
- (c) With the aid of a sketch describe the construction of brick facing. (6 marks)