



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

DEPARTMENT OF BUILDING & CIVIL ENGINEERING
DIPLOMA IN BUILDING & CIVIL ENGINEERING (DBCE 12S)
DIPLOMA IN ARCHITECTURE (DARC 12S)

EBC 2206 BUILDING TECHNOLOGY II & SERVICES

SPECIAL/SUPPLEMENTARY EXAMINATION

SERIES: MARCH 2014

TIME ALLOWED: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- Answer Booklet
- Scientific Calculator

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) Explain **FIVE** principal factors to consider when constructing framed structures **(10 marks)**
- b) (i) Define 2nd carpenters fixing.
(ii) Differentiate interior design from finishes
(iii) With the aid of a sketch, outline the procedure of fixing a wooden skirting **(10 marks)**

Question Two

- a) (i) Sketch a reinforced simple supported concrete beam with SIX reinforcement bars.
(ii) Sketch its cross-section
(iii) Prepare a bar schedule for the beam in Q2(i) **(10 marks)**
- b) (i) List the constituents of reinforced concrete as used in framed structures
(ii) Explain the importance of each of the constituent in Q2 (b) (i) **(10 marks)**

Question Three

- a) Sketch and label the cross-section of a single span pre cast concrete truss **(5 marks)**
- b) Sketch and label the details of the pre cast concrete truss in Q3 (a) **(10 marks)**
- c) State FIVE advantages of precast concrete units used in framed structures **(5 marks)**

Question Four

- a) With the aid of a sketch, explain the following:
(i) Cladding
(ii) Curtain walling
(iii) Facings **(10 marks)**
- b) Sketch and label the parts of a fire place **(5 marks)**
- c) Define the following:
(i) Prestressed concrete
(ii) Dry lining
(iii) Architrave
(iv) Metal lath
(v) Flue **(5 marks)**

Question Five

- a) With the aid of sketches, describe TWO methods of fixing stanchion to the foundation base.
(10 marks)

b) With the aid of a sketch, describe the construction of a self supporting upper floor
(10 marks)