



MACHAKOS UNIVERSITY COLLEGE

(A Constituent College of Kenyatta University)

University Examinations for 2015/2016

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

FIRST SEMESTER EXAMINATION FOR CERTIFICATE IN BUILDING CONSTRUCTION TECHNOLOGY

BCE BT 207: BUILDING TECHNOLOGY III

Date: 3/12/2015

Time: 2:00 – 4:00 PM

INSTRUCTIONS:

- This paper comprises of FIVE questions
 - Question ONE is compulsory and carries 30 marks
 - Answer any other TWO questions
1.
 - a) With the aid of a neat labeled sketch, identify ten parts of an arch. (15 marks)
 - b)
 - i) Define the term “centre” as used in construction of arches (2 marks)
 - ii) Sketch and label a typical centre for spans upto 1.5m (7 marks)
 - c) With the aid of neat sketches, show two methods of fixing a wall plate (6 marks)
 2.
 - a)
 - i) What is a parapet wall? (2 marks)
 - ii) State two functions of a parapet wall (4 marks)
 - iii) With aid of a neat sketch illustrate the details of a parapet wall. (6 marks)
 - b) Draw a neat labeled sketch of the single flying shore system (8 marks)
 - 3.

- a)
 - i) Define the term coping (2 marks)
 - ii) With aid of neat sketches, illustrate four types of copings (8 marks)
 - b)
 - i) State five basic erection regulations for scaffolds (5 marks)
 - ii) Sketch and label the putlof scaffold (5 marks)
- 4.
- a)
 - i) Identify the two functions of a wall plate (2 marks)
 - ii) Outline four main parts of a dead shoring system (4 marks)
 - b)
 - i) Differentiate between pre-cast and cast in-site lintels giving two advantages and two disadvantages of each. (6 marks)
 - ii) Sketch and label the parts of a beam form work (8 marks)
- 5.
- a)
 - i) Define the term shoring (2 marks)
 - ii) Explain four situations where shoring may be required (4 marks)
 - b)
 - i) Outline five functions of a roof (5 marks)
 - ii) Differentiate between a mono-pitch and a lean to roof (2 marks)
 - c) With aid of neat sketches illustrate four types of single roofs (8 marks)