



MACHAKOS UNIVERSITY COLLEGE

(A Constituent College of Kenyatta University)

University Examinations for 2014/2015

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

EXAMINATION FOR CERTIFICATE IN CONSTRUCTION TECHNOLOGY

BCE BT 116 : BUILDING TECHNOLOGY

DATE: 2/4/2015

TIME: 3 HRS

Instructions

- *This paper consists of five questions*
- *Answer question one (compulsory) and any other two questions*

SECTION A (30 MARKS)

1. a) i) Differentiate between the following terms:- English bond and Flemish bond (4 marks)
ii) Outline the procedure of setting out a simple rectangle house. (5 marks)
b) the figure below shows an unbounded plan of a one brick return wall. Draw the plan, 1st and 2nd courses in English bond. (7 marks)
- c) With the aid of neat sketches show five types of finishes applied to brick joints. (5 marks)
- ii) State the purpose of the following components in a ground floor construction

- I) hardcore
 - II) Blinding
 - III) Damp proof membrane (9 marks)
2. A) i) State four (4) reasons for dressing stones (4 marks)
- ii) with the aid of a neat sketch describe three (3) methods of reducing levels before commencing any building works (6 marks)
3. A) i) Draw a neat sketch of a corner profile board showing all necessary details. (6 marks)
- ii) Define the term building process. (3 marks)
- b) i) State two functions of a wall plate (4 marks)
- ii) Describe two methods of fixing wall plates to a building (4 marks)
- c) Name three types of surface finishes to dressed stones. (3 marks)
4. A) Define the following terms:
- i) Centres
 - ii) Lintels
 - iii) Cills
 - iv) Threshold
 - v) Jambs (5 marks)
- II) State three classes of stones (3 marks)
- bi) State three purposes of reinforcing foundations (3 marks)
5. A) State the length of the third and longest side if two of the other sides are 6m and 8m. (7 marks)
- b) Explain why the builders use wedges instead of nails in the construction of trench timbering (5 marks)
- c) Explain two functions of a wall plate. (4 marks)