



MACHAKOS UNIVERSITY

University Examination 2018/2019

**SCHOOL OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF BUILDING AND CIVIL ENGINEERING
FIRST YEAR SECOND SEMESTER EXAMINATION FOR
CERTIFICATE IN BUILDING TECHNOLOGY (TVET)**

1704/103 BUILDING CONSTRUCTION 1

DATE: 18/4/2019

TIME: 8.30-11.30 AM

INSTRUCTIONS

Answer all the five questions

1. a) i) Compare and contrast environmental considerations in relation to a building location (5 marks)
ii) Briefly describe the evolution of the built environment (5 marks)
- b) With well labeled sketches, show the detail of the following types of foundations
 - i. Traditional strip foundation (5 marks)
 - ii. Wide strip foundation. (5 marks)
2. a) List four functional requirements of a good foundation (8 marks)
- b) With the aid of neat sketches, differentiate between a brick wall in Flemish and English bonds (12 marks)
3. a) State five functions of a wall (10 marks)
- b) Explain the following terms as applied to walls:
 - i. Plastering and Rendering (4 marks)
 - ii. Pointing and jointing (4 marks)
- c) Briefly explain the term "Settlement" (2 marks)
4. a) List Four Functions of hardcore under a floor slab (4 marks)

- b) Make neat sketches of the following types of single roofs (16 marks)
- i. lean to roof
 - ii. couple roof
 - iii. closed couple roof
 - iv. collar roof
5. Make neat well labelled sketches of the following types of doors
- a) ledged and battened door
 - b) ledged, braced and battened door
 - c) framed, ledged, battened and braced door (20 marks)