



MACHAKOS UNIVERSITY

University Examination 2019/2020

SCHOOL OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF BUILDING AND CIVIL ENGINEERING
FIRST YEAR THIRD SEMESTER EXAMINATION FOR
CERTIFICATE IN BUILDING TECHNOLOGY
1704/103B: GENERAL BUILDING CONSTRUCTION

DATE: 17/12/2020

TIME: 11:00 – 1:00 PM

INSTRUCTIONS

Answer all the five questions

1.
 - (a) Make a neat, well labeled sketch of a timber corner profile board (10 marks)
 - (b) Explain two aims of setting out buildings (4 marks)
 - (c) Briefly explain three activities involved in site clearance (6 marks)
2.
 - (a) Explain the following terms as applied in foundations;
 - (i) Bearing pressure
 - (ii) Bearing capacity (4 marks)
 - (b) Name and sketch any four types of foundations (16 marks)
3.
 - (a) Outline the purpose of the following;
 - (i) Hardcore
 - (ii) Blinding
 - (iii) Damp proofing membrane (6 marks)
 - (b) By the use of a neat, fully labeled diagram show a typical solid floor details at external walls (16 marks)
4.
 - (a) Define the term timbering and state why it is necessary in excavations (6 marks)
 - (b) By use of a neat fully labeled diagram show typical timbering on loose wet soils (10 marks)
 - (c) Explain the following terms;
 - (i) Backfill
 - (ii) Settlement (4 marks)

5. (a) List down four materials for manufacturing cement (4 marks)
- (b) Outline two factors to be considered when choosing and designing foundations for a domestic house (2 marks)
- (c) List down and briefly explain seven stages of concrete manufacturing process (14 marks)