



MACHAKOS UNIVERSITY

University Examinations for 2020/2021

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

FIRST YEAR TERM I EXAMINATION FOR

CERTIFICATE IN BUILDING TECHNOLOGY AND CIVIL ENGINEERING.

CONSTRUCTION MATERIALS 1

DATE: 11/6/2021

TIME: 2:30 – 5:30 PM

INSTRUCTIONS

ANSWER ALL QUESTIONS

1.
 - a) Explain six physical characteristics of a construction materials (10 marks)
 - b) Explain four mechanical characteristics of construction materials (10 marks)
2.
 - a) give four properties of first-class bricks (4 marks)
 - b) Illustrate the following types of bricks
 - i) Coping brick
 - ii) Perforated brick
 - iii) Hollow brick
 - iv) Queen brick (10 marks)
 - c) Describe four common defects in bricks (6 marks)
3.
 - a) Give six qualities of a good construction stone (12 marks)
 - b) Describe three tests done to a construction stone (6 marks)
4.
 - a) Draw a cross-section of a mature tree and name all the parts (12marks)
 - b) Give four timber defects (4 marks)
 - c) State four characteristics of good timber (4 marks)

5. a) Describe the following clay products
- i) Terracotta
 - ii) Majolica
 - iii) Porcelain
 - iv) Earthenware (8 marks)
- b) Explain four methods used in stone dressing (8 marks)
- c) Explain two tests done to timber (4 marks)