



MACHAKOS UNIVERSITY

University Examination 2018/2019

SCHOOL OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF BUILDING AND CIVIL ENGINEERING
FIRST YEAR SEMESTER TWO EXAMINATION FOR

..... **IN CIVIL ENGINEERING**

CONSTRUCTION MATERIALS

DATE:

TIME:

INSTRUCTIONS

5. a) Mention four types of clay products used in the construction industry. (4 marks)
- b) Outline the procedure of manufacturing clay bricks. (16 marks)
6. a) Briefly explain the classification of rocks on the basis of their geological formation, physical characteristics and chemical composition. (16 marks)
- b) Mention four methods of quarrying stones. (4 marks)
7. a) Briefly describe the following processes of manufacturing cement:
- Dry process
- Wet process. (8 marks)
- b) i) Mention three tests done on building stones.
- ii) State and briefly explain two methods of seasoning timber (9 marks)
- c) Outline the best practice for storage of cement. (3 marks)
8. a) i) Differentiate between ferrous and non-ferrous metals (2 marks)
- ii) State three methods of casting iron. (3 marks)

b) Define the following heat treatment processes for steel;

-Hardening

-Tempering

-Annealing

-Normalizing

(8 marks)

c) i) Mention any four non-ferrous metals

(2 marks)

ii) List down three types of steel and mention two uses of each.

(5 marks)