



# MACHAKOS UNIVERSITY

University Examination 2018/2019

**SCHOOL OF ENGINEERING AND TECHNOLOGY**  
**DEPARTMENT OF BUILDING AND CIVIL ENGINEERING**  
**FIRST YEAR SEMESTER TWO EXAMINATION FOR**  
**DIPLOMA IN CIVIL ENGINEERING MODULE 1 TVET**

**2707/102/CT: CONCRETE TECHNOLOGY 1**

**DATE: 18/4/2019**

**TIME: 8:30 – 11:30 AM**

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## INSTRUCTIONS

Attempt all the questions

1. a) i) Define the term batching (2 marks)  
ii) Discuss two method used in batching of concrete materials (8 marks)
- b) Discuss two methods of mixing concrete (6 marks)
- c) State four properties of good concrete (4 marks)
2. a) Discuss two method of transporting concrete (8 marks)
- b) Using sketches describe the following types of transporting concrete :-
  - i) lorry mounted mixer
  - ii) front dumper (12 marks)
3. a) State 5 precautions taken when placing the concrete (5 marks)
- b) Sketch two equipment used in compacting concrete (10 marks)
- c) Describe 2 methods used in compacting concrete (5 marks)
4. Explain four method of curing concrete (20 marks)
5. a) Explain four qualities of hardened concrete (8 marks)
- b) Outline the procedure for striking formwork (8 marks)
- c) Differentiate between additive and admixtures, state two example of each (4 marks)