



MACHAKOS UNIVERSITY

University Examinations for 2021/2022

SCHOOL OF ENGINEERING AND TECHNOLOGY
BUILDING AND CIVIL ENGINEERING DEPARTMENT
FIRST SEMESTER FIRST YEAR EXAMINATION FOR
DIPLOMA IN BUILDING AND CIVIL
CONCRETE TECHNOLOGY 1

DATE: 26/11/2021

TIME: 2.30-5.30 PM

INSTRUCTIONS:

- *This Examination contains FIVE questions*
- *Attempt all questions*

- (a) Name four components that make the concrete. (4 marks)
 - (b) Explain the following terms as used to describe the properties of aggregates
 - (i) Toughness (3 marks)
 - (ii) Durability (3 marks)
 - (iii) Soundness (3 marks)
- (a) State three factors that affects the workability of concrete (6 marks)
 - (b) With aid of clear sketches explain the wet process of cement manufacturing. (14 marks)
- State and explain four types of concrete (8 marks)
- With aid of clear sketches explain the dry process of cement manufacturing. (12 marks)
- (a) With the aid of clear sketches explain the procedure of slum test. (9 marks)
 - (b) With aid of clear sketches explain the compressive strength test of concrete (8 marks)