



TECHNICAL UNIVERSITY OF MOMBASA

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF ARCHITECTURE & BUILT ENVIRONMENT

UNIVERSITY EXAMINATION FOR:

DIPLOMA IN QUANTITY SURVEYING

EQS 2305: CONSTRUCTION PLANT AND EQUIPMENT

SPECIAL/SUPPLEMENTARY EXAMINATION

YEAR 3 SEMESTER 1

SERIES: JUL 2025

TIME: 2 HOURS

DATE: JUL 2024

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **FIVE** questions. Attempt question ONE (Compulsory) and any other TWO questions.

Do not write on the question paper.

QUESTION ONE - COMPULSORY

(30 marks)

- a) Explain FIVE considerations for selecting construction plant and equipment to be used in excavating and compacting operations. (10 marks)
- b) Identify and explain any FIVE transporting and lifting construction plant and equipment. (15 marks)
- c) Identify FIVE maintenance and care tips to ensure the longevity and optimal performance of construction plant and equipment. (5 marks)

QUESTION TWO**(15 marks)**

- a) Explain FIVE advantages of buying your construction plant and equipment instead of hiring. (10 marks)
- b) Identify FIVE health and safety precautions that must be taken when working with construction plant and equipment. (5 marks)

QUESTION THREE**(15 marks)**

- a) Mechanization is the process of shifting from working largely by hand to more use of machines at work. Explain FIVE motivations for mechanization in the construction industry. (10 marks)
- b) Distinguish between a “continuous mixer” and a “batch mixer” as types of concrete mixers. (5 marks)

QUESTION FOUR**(15 marks)**

Explain any FIVE drilling and blasting construction plant and equipment.
(15 marks)

QUESTION FIVE**(15 marks)**

- a) Explain FIVE advantages of using manual labour in construction projects. (10 marks)
- b) Identify FIVE factors a site manager will consider when forecasting the construction plant and equipment requirements for the next three months of the project. (5 marks)