



MACHAKOS UNIVERSITY
University Examinations for 2021/2022 Academic Year
SCHOOL OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF BUILDING & CIVIL ENGINEERING
FIRST YEAR SECOND TERM EXAMINATION FOR
DIPLOMA IN BUILDING TECHNOLOGY
DIPLOMA IN CIVIL ENGINEERING

2705&7 / 105 CP: CONSTRUCTION PLANT AND EQUIPMENT

DATE:7/4/2022

TIME: 2.30-5.30 PM

INSTRUCTIONS

- *This paper consists of **SIX** questions.*
- *Answer **FIVE** questions.*
- *All questions carry equal marks.*
- *Maximum marks for each part of the question are as shown.*

1.

- a) State **Five** safety precautions observed when operating excavating plant. (5 marks)
- b) Explain **Three** operations carried out by excavating plant. (9 marks)
- c) Sketch and label a longitudinal elevation of a bulldozer. (6 marks)

2.

- a) State **Five** factors that influence the selection of compacting plant. (5 marks)
- b) State **Four** types of compacting plant, giving one situation where each is used. (6 marks)
- c) Explain **Three** operations carried out by compacting plant. (9 marks)

3.

- a) State **Five** factors that influence the selection of concreting plant. (5 marks)
- b) Explain **Three** operations carried out by concreting plant. (9 marks)

- c) Explain **Three** activities involved in periodic maintenance of concreting plant. (6 marks)
- 4.
- a) State **Five** factors that influence the selection of bitumen laying plant. (5 marks)
- b) Explain **Three** activities involved in routine maintenance of bitumen laying plant. (6 marks)
- c) Explain **Three** operations carried out by bitumen laying plant. (9 marks)
- 5.
- a) State **Four** types of transporting plant, giving one situation where each is used. (6 marks)
- b) Explain **Three** operations carried out by transporting plant. (9 marks)
- c) Sketch and label a longitudinal elevation of a dumper. (6 marks)
- 6.
- a) State **Five** reasons for using construction plant and equipment in a construction site. (5 marks)
- b) Explain **Three** types of plant maintenance. (9 marks)
- c) Sketch and label a longitudinal elevation of a backactor. (6 marks)