



MACHAKOS UNIVERSITY

University Examinations for 2021/2022

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF MECHANICAL AND MANUFACTURING ENGINEERING

FIRST YEAR FIRST SEMESTER EXAMINATION FOR

CERTIFICATE IN MOTOR VEHICLE ENGINEERING

MODULE I

VEHICLE TECHNOLOGY

DATE:

TIME:

INSTRUCTIONS

- This paper consists of FIVE questions
- Answer all questions

- State FIVE causes of accidents in a motor vehicle workshop. (5 marks)
 - Explain FIVE ways in which accidents can be minimized in workshop. (15 marks)
- List FIVE causes of clutch slip and explain how they can be corrected. (10 marks)
 - With the aid of a diagram explain the construction and operation of the hydraulically operated clutch release mechanism. (10 marks)
- Sketch the layout of a conventional vehicle and show the position of the main components. (10 marks)
 - Name any TWO alternative engine positions in a vehicle and give TWO advantages and disadvantages for each. (10 marks)
- State THREE functions of a gearbox. (3 marks)
 - With the aid of a diagram explain the construction and operation of a three-speed sliding mesh gearbox. (17 marks)
- Using a well labelled diagram, explain the operation of a single plate clutch. (20 marks)