



# MACHAKOS UNIVERSITY

University Examinations for 2019/2020 Academic Year

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF MECHANICAL AND MANUFACTURING ENGINEERING

THIRD YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR

DIPLOMA IN MECHANICAL ENGINEERING

MVED 106/2 ENGINE TECHNOLOGY AND PRACTICE I

DATE: 22/01/2021

TIME: 8.30-10.30 AM

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## INSTRUCTIONS

*Answer Question One and Any Other Two Questions*

### QUESTION ONE (30 MARKS)

- a) Illustrate three engine configurations (15 marks)
- b) Distinguish between a diesel and a petrol engine (15 marks)

### QUESTION TWO (20 MARKS)

Using a well labelled diagram explain the otto cycle

### QUESTION THREE (20 MARKS)

using a well labelled diagram explain the construction and operation of the two stroke cycle petrol engine

### QUESTION FOUR (20 MARKS)

A vehicle has been brought to motor vehicle workshop with a leaking cylinder head gasket, explain the procedure you will follow to replace the gasket

### QUESTION FOUR (20 MARKS)

Explain the method of carrying out the following inspections:-

- a) Warped or bend cylinder head
- b) Bend camshaft