



TECHNICAL UNIVERSITY OF MOMBASA

Faculty of Engineering and Technology

DEPARTMENT OF MECHANICAL AND AUTOMOTIVE ENGINEERING
UNIVERSITY EXAMINATION FOR:

DIPLOMA IN MECHANICAL ENGINEERING (DMEN 6)
EAU 2308 ENGINE TECHNOLOGY AND PRACTICE IV
END OF SEMESTER EXAMINATION

SERIES: DEC 2016 PAPER-B

TIME: 2 HOURS

DATE: 2016

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 ANY THREE.

Do not write on the question paper.

Question ONE

(a) State the stages of combustion in a compression ignition engine.

(4marks)

(b) With the aid of a diagram describe the construction and operation of an injector.

(16marks)

Question TWO

(a) Illustrate the fuel supply layout for a diesel engine.

(5marks)

(b) Describe with the aid of a diagram the operation of a mechanical fuel pump.

(15marks)

Question THREE

(a) State **TWO** advantages and **TWO** disadvantages of a gas turbine engine.

(4marks)

(b) Use a schematic diagram to briefly explain the working of the a straight through gas turbine combustor

(16) marks)

Question FOUR

(a) Describe the method of adjusting the maximum combustion pressure in a diesel engine cylinder

(10 marks)

(b) Describe a procedure for carrying out Automatic advance pressure adjustment on a Delphi DPA fuel injection pump.

(10 marks)

Question FIVE

Describe the procedure for testing the phase angle of an injection pump

(20marks)

