



# MACHAKOS UNIVERSITY

University Examinations 2017/2018

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF MECHANICAL AND MANUFACTURING ENGINEERING

SECOND YEAR SECOND SEMESTER EXAMINATION FOR DIPLOMA IN  
MECHANICAL ENGINEERING

MVED 204/2VEHICLE ELECTRICS AND ELECTRONICS II

DATE: 18/12/2017

TIME: 8:30 – 10:30 AM

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## INSTRUCTIONS

This paper consists of *FIVE* questions

Answer question *ONE* (compulsory) and any other *TWO* questions

1. a) Explain the following as used in coil ignition system.
    - i Dwell angle.
    - ii Centrifugal advance mechanism.
    - iii Vacuum advance mechanism.
    - iv Condenser. (6 marks)
  - b) List three advantages and THREE disadvantages of transistorized ignition system. (6 marks)
  - c) With the aid of a sketch explain the operation of the coil ignition system. (18 marks)
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2. With the aid of a sketch, explain the operation of capacitor discharge ignition system. (20 marks)

3. a) Explain the operation of the moving iron temperature gauge (10 marks)  
b) With the aid of a sketch, explain the operation of oil pressure switch. (10 marks)
4. a) Name FIVE circuits of the Accessories/Auxilliries. (5 marks)  
b) Explain the operation of the limit switch in wiper motors. (15 marks)
5. A vehicle with a faulty wiper motor system is brought in the workshop for repair, explain the procedure you would adopt to make it serviceable. (20 marks)