



MACHAKOS UNIVERSITY

University Examinations for 2019/2020 Academic Year

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF MECHANICAL ENGINEERING

FIRST YEAR THIRD SEMESTER EXAMINATION FOR

ARTISAN IN AUTOMOTIVE

VEHICLE TRADE THEORY

DATE: 18/12/2020

TIME: 8.30-11.30 AM

INSTRUCTIONS

ANSWER ALL THE QUESTIONS

1. a) State the function of water as a coolant in the cooling of a running engine (3 marks)
b) With the aid of a Sketch, explain Thermo-siphon cooling system (17 marks)
2. a) State the three function of transmission system in a vehicle. (6 marks)
b) With the aid of a labeled Sketch, explain the operation of a dry plate clutch. (14 marks)
3. a) State the purpose of braking system in a vehicle (3 marks)
b) List two methods of operating the Blake shoes (2 marks)
c) With the aid of a labeled diagram, explain the operation of hydraulic Blake system (15 marks)
4. a) State the two functions of ignition system (2 marks)
b) With aid of a labeled sketch explain the operation of a coil ignition system (18 marks)
5. a) State two function of lubrication system. (2 marks)
b) With the aid of a labeled sketch, explain the operation of a lubrication system (18 marks)