

2909/106
MOTOR VEHICLE CARE
AND SERVICING
November 2022
Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL
DIPLOMA IN ROAD TRANSPORT MANAGEMENT

MODULE I

MOTOR VEHICLE CARE AND SERVICING

3 hours

INSTRUCTIONS TO CANDIDATES

*This paper consists of SEVEN questions.
Answer any FIVE questions in the answer booklet provided.
All questions carry equal marks.
Candidates should answer the questions in English.*

This paper consists of 2 printed pages.

Candidates should check the question paper to ascertain that both pages are printed as indicated and that no questions are missing.

- 1✓ (a) Sketch the following workshop tools and outline one function of each tool:
- (i) mallet; (3 marks)
 - (ii) hacksaw; (3 marks)
 - (iii) torque wrench; (3 marks)
 - (iv) rectangular file. (3 marks)
- (b) Explain **four** engine oil additives that are used in a motor vehicle. (8 marks)
- 2✓ (a) Explain **four** advantages of having a front mounted engine motor vehicle. (8 marks)
- (b) With the aid of a sketch explain the operations of an oil pressure gauge. (12 marks)
- 3✓ (a) Outline **five** types of lights found in a motor vehicle. (10 marks)
- (b) Outline **five** requirements that a motor vehicle tyre should have for it to perform its function effectively. (10 marks)
4. (a) Explain **four** necessary qualities of clutch fluid for efficient clutch operations. (8 marks)
- (b) Outline **three** possible causes of each of the faults in the motor vehicle braking system:
- (i) brakes too sensitive; (6 marks)
 - (ii) loss of brake fluid. (6 marks)
5. (a) The manufacturers of modern motor vehicles have done away with the mechanical braking system. Outline **five** reasons that may have led to this move. (10 marks)
- (b) Use a sketch to illustrate a measurement of 43.5 mm on a vernier caliper. (10 marks)
6. (a) Outline the meaning of the following markings on a tyre 205/70R16. (8 marks)
- (b) (i) Explain the function of a thermostat. (2 marks)
- (ii) A vehicle has been brought to the workshop with a faulty thermostat. Describe the procedure of testing the thermostat. (10 marks)
7. (a) Outline **four** advantages of the electronic fuel injection system used in motor vehicles. (8 marks)
- (b) Mr. John has a vehicle engine that does not crank. Outline **six** possible causes for the engine not cranking. (12 marks)

THIS IS THE LAST PRINTED PAGE.