



# MACHAKOS UNIVERSITY

University Examinations for 2019/2020 Academic Year

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

FIRST YEAR THIRD SEMESTER EXAMINATION FOR

CERTIFICATE IN AUTOMOTIVE ENGINEERING

VEHICLE BODYWORK THEORY

**DATE: 16/12/2020**

**TIME: 2:30 – 5:30 PM**

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**INSTRUCTIONS:**

Answer ALL questions in this section

**QUESTION ONE (20 MARKS)**

- a) List five (5) safety rules in a vehicle body shop (5marks)
- b) Explain the procedure for applying first aid to stop bleeding from a cut (5 marks)
- c) State five safety requirements to be observed when spray painting (5 marks)
- d) Explain the fire triangle (5 marks)

**QUESTION TWO (20marks)**

Sketch and explain the purpose of each of the following tools

- a) Dinging hammer (5 marks)
- b) Utility dolly (5 marks)
- c) Body file (5 marks)
- d) Surface spoon (5 marks)

**QUESTION THREE (20 MARKS)**

- a) State two types of paints (5 marks)
- b) Sketch a spray gun and explain its operation (15 marks)

**QUESTION FOUR (20 MARKS)**

- a) State three qualities of upholstery material used in a car (6 marks)
- b) Sketch an estate car and name the following parts
- (i) Front bumper (ii) B-post (iii) Door sill (iv) Front wing (v) Cant sill (14 marks)

**QUESTION FIVE (20 MARKS)**

- a) Sketch three frame sections used in motor vehicle construction (10 marks)
- b) Sketch the commercial vehicle chassis frame and name the parts (10 marks)