



MACHAKOS UNIVERSITY

University Examinations 2018/2019

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF MECHANICAL AND MANUFACTURING ENGINEERING

FIRST YEAR FIRST SEMESTER EXAMINATION FOR

ARTISAN IN MECHANICAL ENGINEERING (WELDING AND FABRICATION)

TRADE THEORY

DATE: 18/4/2019

TIME: 11.30-2.30 PM

INSTRUCTIONS:

ATTEMPT ALL QUESTIONS

QUESTION ONE (20 MARKS)

- a) Define the term accident. (2 marks)
- b) List **SIX** objectives of industrial safety. (6 marks)
- c) State **TWELVE** causes of accidents in a workshop. (12 marks)

QUESTION TWO (20 MARKS)

Explain the use, care and maintenance as well as the safety precautions when handling a bench vice. (20 marks)

QUESTION THREE (20 MARKS)

- a) List **SIX** tools used in marking out. (3 marks)
- b) Using a sketch explain the use, care and maintenance and safety when using a scribe. (17 marks)

QUESTION FOUR (20 MARKS)

- a) Name **SIX** tools used for measuring and checking (3 marks)
- b) i Outline the uses, care and maintenance of a vernier callipers
- c) ii Using a neat sketch, show a reading of 1.93 cm on a vernier calliper. (17 marks)

QUESTION FIVE (20 MARKS)

- a) State **TEN** safety precautions to be observed when working in a workshop (5 marks)
- b) Explain **THREE** classes of fires (9 marks)
- c) List **FOUR** firefighting media (6 marks)