



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF MEDICAL ENGINEERING

UNIVERSITY EXAMINATION FOR:

BSC IN MEDICAL ENGINEERING

EEE 4230: WORKSHOP TECHNOLOGY AND PRACTICE II

END OF SEMESTER EXAMINATION

SERIES: APRIL 2016

TIME: 2 HOURS

DATE: 18 May 2016

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, Drawing instruments, Scientific calculator, examination pass and student ID

This paper consists of ~~Choose No~~ questions. ~~Attempt~~Choose instruction.

Do not write on the question paper.

Question ONE

- a) (i) Describe any THREE classes of fire and explain how each is suitably suppressed
- (ii) Describe any THREE primary hazards associated with electricity on the human body

(30 Marks)

Question TWO

- a) (i) Distinguish the two types of pipe threads used by the British Standard Pipe (BSP), and explain the pipe thread sizing
- (ii) Discuss the function of oil used when cutting pipe threads with a die and stock

(12 Marks)

b) Describe how metallic electrical conduit pipe systems are classified

(8 Marks)

Question THREE

Discuss each of the four basic parts that form an electric circuit for an industrial set-up, and use a sketch to illustrate

(20 Marks)

Question FOUR

Given the following items,

- TWO Switches
- ONE lamp
- Alternating Current supply

a) Use conventional symbols to draw neatly wiring diagrams for the following conditions

- i. Switches in parallel
- ii. Switching lamp from two places

(12 Marks)

b) Distinguish between an open circuit and a short circuit citing their probable causes

(8 Marks)

Question FIVE

a) Distinguish any THREE metal pipe bending methods

(12 Marks)

b) Describe how you would make a right angled steel pipe bend using bending dies

(8 Marks)