

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

EXAMINATION FOR THE AWARD OF DEGREE OF

AGEN 112: INTRODUCTION TO WORKSHOP TECHNOLOGY

STREAMS:

TIME: 2 HOURS

DAY/DATE: MONDAY 13/04/2015

11.30 AM – 1.30PM

INSTRUCTIONS:

Answer ALL Questions in Section One and any other Two Questions in Section Two

SECTION ONE

1. List ten personal safety requirements in a workshop. [5 marks]
2. Explain four characteristics of measuring instruments [6 marks]
3.
 - (i) Explain the term welding [2 marks]
 - (ii) Explain four limitations of welding [4 marks]
 - (iii) List four advantages of gas welding [4 marks]
4. Giving examples explain the following:
 - (i) Unsafe working conditions [4 marks]
 - (ii) Unsafe practices on the part of the worker [5 marks]

SECTION TWO

5. Explain the following forging operations
 - (a)
 - (i) Upsetting [4 marks]
 - (ii) Draw down [4 marks]

- (iii) Bending [4 marks]
- (b) Draw a micrometer caliper and name all the parts [8 marks]
6. Briefly explain the following methods of making joints
- (a) (i) Soldering [4 marks]
- (ii) Brazing [4 marks]
- (b) Sketch a good proportion of a vernier caliper name the parts and give its advantages and limitations. [12 marks]
7. (a) Explain Five variables that can influence weldability [5 marks]
- (b) By use of diagrams describe the three types of welding flames used in gas welding and give their field of application. [15 marks]
-