



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF ENGINEERING AND TECHNOLOGY
UNIVERSITY EXAMINATION FOR DIPLOMA IN BUILDING AND CIVIL
ENGINEERING
1ST YEAR 2ND SEMESTER 2015/2016 ACADEMIC YEAR
MAIN CAMPUS

COURSE CODE: TBC 2121

COURSE TITLE: WORKSHOP TECHNOLOGY II

EXAM VENUE: LR 2

STREAM: (Dip. Building & Civil Eng.)

DATE: 21/04/16

EXAM SESSION: 2.00 – 3.30PM

TIME: 1 ½ HOURS

Instructions:

- 1. Answer Question ONE (COMPULSORY) and ANY other 2 questions**
- 2. Candidates are advised not to write on the question paper.**
- 3. Candidates must hand in their answer booklets to the invigilator while in the room**

QUESTION ONE

- a) List any FIVE basic plumbing tools. (5 marks)
- b) Explain any TWO reasons why it is mandatory to maintain design gradient while laying sewers. (5 marks)
- c) Explain the procedure of lighting flame in gas welding exercise. (6 marks)
- d) Explain ONE reason why steel pipes are commonly used for plumbing in buildings compared to other pipe materials. (4 marks)

QUESTION TWO

- a) Compare and contrast two systems of supplying cold water into building. (6 marks)
- b) Explain the functions of the following fittings in plumbing
 - i. Union
 - ii. Nipple
 - iii. Plug
 - iv. Adaptor(6 marks)

QUESTION THREE

- a) State any FOUR safety procedures in arc welding. (4 marks)
- b) Explain the principle of arc welding using a welding circuit. (6 marks)

QUESTION FOUR

- a) Explain how you can set the following flame types in Oxy-Acetylene gas welding
 - i. Neutral flame
 - ii. Carburizing
 - iii. Oxidizing.(6 marks)
- b) Explain the principle of Oxy-flame cutting in steel. (4 marks)

QUESTION FIVE

- (a) State the functions of the following facilities in sanitary plumbing
 - i. Traps
 - ii. Inspection chambers(6 marks)
- (b) Why is it important that pipes below design minimum size of pipe is not used when laying sewers. (4 marks)