



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY  
SCHOOL OF ENGINEERING AND TECHNOLOGY**

**UNIVERSITY EXAMINATION FOR DIPLOMA IN BUILDING AND CIVIL ENGINEERING  
1<sup>ST</sup> YEAR 1<sup>ST</sup> SEMESTER 2015/2016 ACADEMIC YEAR**

**MAIN**

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**COURSE CODE: TBC 2111**

**COURSE TITLE: WORKSHOP TECHNOLOGY I**

**EXAM VENUE:** **STREAM: (Dip. Building & civil engineering)**

**DATE:** **EXAM SESSION:**

**TIME: 1<sup>1</sup>/<sub>2</sub> HOURS**

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**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) State SIX safety rules that are applicable in any workshop of your choice. (6 marks)
- b) List FOUR tools used in Masonry practice. (4 marks)
- c) With the aid of a neat sketch explain any TWO joints used in joinery works. (6 marks)
- d) State any TWO requirements of formwork. (4 marks)

### **QUESTION TWO**

- a) With the aid of appropriate sketches distinguish between queen closer and king closure (4 marks)
- b) Sketch one brick wall, Flemish bond brick laying. (6 marks)

### **QUESTION THREE**

- a) Using a neat sketch, explain how bonding is achieved in masonry walling. (6 marks)
- b) Distinguish between uncoursed and coursed random rubble stone masonry. (4 marks)

### **QUESTION FOUR**

- (a) State any FOUR properties of a good mortar. (4 marks)
- (b) State any THREE plastering failures and explain their causes. (6 marks)

### **QUESTION FIVE**

- (a) Explain the functions of the following carpentry tools
  - i. Dovetail saw
  - ii. Try plane
  - iii. Brace
  - iv. Mallet(4 marks)
- (b) Sketch TWO types of timber doors. (6 marks)