



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

**UNIVERSITY EXAMINATIONS**

**2013/2014 ACADEMIC YEAR**

**SECOND YEAR, SECOND SEMESTER EXAMINATION FOR DIPLOMA IN  
BUILDING AND CIVIL ENGINEERING**

**TBC- 2224 CONSTRUCTION MATERIAL TECHNOLOGY II**

**August 2013**

**TIME: 1.5 HOURS**

**INSTRUCTIONS TO CANDIDATES**

**This paper consists of 5 questions**

**Answer Question ONE and any other TWO Questions**

### **QUESTION ONE**

- a) State THREE demerits of timber as construction material. ( 6 Marks)
- b) State any THREE advantages of steel as a construction material. (6 Marks)
- c) State any THREE general requirements of suitability of a rock for building stones. (6 Marks)
- d) State any SIX application areas of plastics within building construction work (6 Marks)
- e) Compare and contrast the suitability of steel pipe or plastic pipe for water conveyance as large pipes( water mains). (6 marks)

### **QUESTION TWO**

- a) Discuss any TWO wood defects (5 Marks )
- b) State any FIVE requirements of good wood preservative (10 Marks )

### **QUESTION THREE**

- a) Discuss the difference between cast and wrought iron and their application ( 9 marks)
- b) Explain any TWO methods of preventing corrosion in steel ( 6 Marks)

### **QUESTION FOUR**

- a) Distinguish between tar and asphalt (5 Marks)
- b) Explain any FIVE properties required for bricks as a construction material. (10 Marks)

### **QUESTION FIVE**

- (a) What do you understand by polymerization and how is the theory used in the manufacture of plastics (5 Marks)
- (b) State any FIVE positive properties of plastics which make them popular as a construction material ( 10 Marks)