



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)