



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

**UNIVERSITY EXAMINATIONS 2012/13 ACADEMIC YEAR
1ST YEAR 1ST SEMESTER EXAMINATION FOR THE DIPLOMA
IN BUILDING AND CIVIL ENGINEERING**

COURSE CODE: TBC 2216

COURSE TITLE: BUILDING CONSTRUCTION TECHNOLOGY I

DATE: 20/4/2013 11.00-13.00PM

DURATION: 2 HOURS

INSTRUCTIONS

This paper consists of 4 questions

Answer Question ONE and any other TWO Questions

Use clear sketches to illustrate your answers where necessary

QUESTION ONE

- a) Explain any four factors to consider when setting out an in situ concrete stairs
4 Marks
- b) State any four advantages of suspended floors 4 Marks
- c) Explain the importance of hardcore in the ground floor 3 Marks
- d) Identify the methods of earthwork support to trenches in different types of soils
4 Marks
- e) Explain how you would prevent damp in a cavity wall 3 Marks
- f) List any four constructional requirements of a cavity wall 4 Marks
- g) Explain the following terms as used in scaffolding 3 Marks
 - i. Transoms
 - ii. Ledgers
 - iii. Standards
- h) State any four safety precautions in the erection of scaffolding 4 Marks

QUESTION TWO

- a) State the purposes of foundations 3 Marks
- b) Explain any three types of shallow foundations 6 Marks
- c) List and explain any three types of deep foundation 6 Marks

QUESTION THREE

- a) Discuss the three methods of setting out a building 8 Marks
- b) List any four safety precautions in trench excavations 4 Marks
- c) Explain any three causes of settlement in soils 3 Marks

QUESTION FOUR

- a) Discuss the qualities of a good formwork 5Marks
- b) Draw a sectional view of timber formwork for a rectangular RCC column
4 Marks
- c) Explain using well labeled diagrams the two types of scaffolding
6 Marks