



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF SPATIAL PLANNING
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN
WATER RESOURCE AND ENVIRONMENTAL MANAGEMENT
SEMESTER 2016/2017 ACADEMIC YEAR

CENTRE: MAIN CAMPUS

COURSE CODE: PWE 3411

COURSE TITLE: CONSTRUCTION MANAGEMENT I

EXAM VENUE:

STREAM: PUBLIC HEALTH

DATE:

EXAM SESSION:

TIME: 2 HOURS

Instructions:

- 1. Answer question 1 (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 examination room.**

Question one

- a) Define dimensional co-ordination. (2 marks)
- b) Explain the main principle behind dimensional co-ordination. (2 marks)
- c) Outline any TWO advantages of dimensional co-ordination (4 marks)
- d) Discuss any FOUR societal requirement of a building. (4 marks)
- e) Explain the following terms.
 - i) Substructure
 - ii) Super structure. (4 marks)
- f) Explain the role of the following in a building team
 - i) Clerks of works
 - ii) Contractor. (5 marks)
- g) Outline the tasks to be performed by a builder once he/she has the possession of the site. (9 marks)

Question 2

- a) Define sustainable development. (2 marks)
- b) Explain the primary pillars of sustainable construction in development. (4 marks)
- c) Outline FOUR advantages of sustainable development in the construction industry. (4 marks)
- d) What are the statutory instruments? And how are they prepared. (2 marks)
- e) Explain the relationship between construction and the environment. (8 marks)

Question three

- a) Differentiate between the built environment and the general environment.
(4 marks)
- b) Explain any TWO disadvantages of civil construction to the environment, stating the need for environmental impact assessment before commencement of a construction project.
(8 marks)
- c) Explain any FOUR issues sustainable development should address.
(8 marks)

Question four

- a) With the aid of sketches outline the process of cement manufacture.
(8 marks)
- b) Define the term timber conversion.
(2 marks)
- c) List any TWO defects found in timber.
(2 marks)
- d) Outline any FOUR objectives of monitoring and evaluation in construction project.
(8 marks)

Question five

- a) Outline any FOUR advantages of having a construction plant on site.
(4 marks)
- b) Explain any THREE importance of using concrete mixing plant on site as opposed to hand mixing.
(6 marks)
- c) Discuss how well one would reclaim an abandoned quarry site.
(4 marks)
- d) Sketch and label concrete mixing plant.
(6 marks)