

**NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**FACULTY OF THE BUILT ENVIRONMENT**

**DEPARTMENT OF LANDSCAPE ARCHITECTURE AND URBAN DESIGN**  
**MASTERS IN URBAN DESIGN**  
**2011-2012 ACADEMIC YEAR**

**PART 1- FIRST SEMESTER EXAMINATIONS MARCH 2012**  
**BQS 5102 ADVANCED CONSTRUCTION PLANNING AND MANAGEMENT**

**Instructions to candidates**

**Time: 3 Hours**

- a) Answer any 4 questions
- b) Each question carries 25 marks.
- c) Where information is insufficient, candidates are allowed to make reasonable assumptions.

**Question 1**

Describe how you will add value to the project process, paying particular attention to the Initiation and Concept phase of a construction project cycle.

[25]

**Question 2**

Describe one method that is used to select an optimum solution given various project options.

[25]

**Question 3**

Explain using example the importance of the following as they are used in project management.

- a) Critical path [6]
- b) Cost-Benefit analysis [6]
- c) Work Breakdown Structure [6]
- d) Project lifecycle [7]

[25]

**Question 4**

Your boss has asked you to draft a Client -Project Manager agreement. What important aspects should be covered in the agreement.

[25]

**Question 5**

Midway during the construction of government flats in Harare, the Project Manager realizes that he is likely to end up with cost and time overruns. What mitigatory measures should he/she put in place to minimize the cost and time overruns.

[25]

**Question 6**

Discuss the Scope Management Process for a typical construction project and demonstrate its value during the project process. [25]

**Question 7**

The client has advised that cost control during the procurement of security equipment from Germany is not necessary since the budget is in United States Dollars (USD). Using mathematical models, convince the client that cost control is necessary during the procurement of the equipment. [25]