



NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF THE BUILT ENVIRONMENT

DEPARTMENT OF CONSTRUCTION MANAGEMENT

CONSTRUCTION ECONOMICS ASPECTS

BQS 2208

Examination Paper

February 2025

This examination paper consists of three (3) pages.

Time Allowed: 3 hours
Total Marks: 100
Special Requirements: None
Examiner's Name: Mr. J Matande

INSTRUCTIONS

1. Answer any **Four (4)** questions

MARK ALLOCATION

QUESTION	MARKS
1.	25
2.	25
3.	25
4.	25
5.	25
TOTAL	100

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Question One

Briefly explain the principle behind the following terms when dealing with time value for money mechanics.

- a) i. Compounding. [2 marks]
- ii. Discounting. [3 marks]
- b) Given an interest rate of 10% compounded annually, how much can be loaned now if \$2000 will be repaid at the end of 4 years? [5 marks]
- c) A building scheduled to be demolished in 15 years' time requires repainting now. It will also require repainting after every 3 years until demolition. The cost of each repainting is estimated at \$500. In 10 years, \$320 is to be spent on alterations, and \$190 will be spent at the end of each year on sundry repairs. What sum must be set aside now to cover the cost of all works, assuming the rate of interest obtainable on investment and ignoring the effect of taxation is 10%? [15marks]
- [25 marks]**

Question Two

- a) Explain the following terms as they are used in construction economics.
- i. Effectiveness. [2marks]
- ii. Efficiency. [3marks]
- b) The study of construction economics equips construction professionals with knowledge towards use of scarce resources in the construction industry of Zimbabwe. Critically analyse this assertion. [20marks]
- [25marks]**

Question Three

- a) With the aid of examples, explain the following construction costs.
- i. Fixed Costs. [2marks]
 - ii. Variable costs. [2marks]
- b) Differentiate between free economic system and command economic system highlighting how these systems may influence the allocation of resources. [6 marks]
- c) To what extent does green building enhance the economic use of resources in the construction industry? [15marks]
- [25marks]**

Question Four

- a) Briefly explain circular economy. [5marks]
- b) The adoption of modern construction methods have enhanced the utilization of resources in the construction industry. Discuss. [20marks]
- [25marks]**

Question Five

Compare and contrast the following terms:

- a) Cost planning and cost management. [6 marks]
- b) Value Engineering and whole life costing. [9 marks]
- c) Elemental cost planning and comparative cost planning. [10 marks]
- [25 marks]**

END OF EXAMINATION