



NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF THE BUILT ENVIRONMENT

DEPARTMENT OF LANDSCAPE ARCHITECTURE AND URBAN DESIGN

Building Economics

BLP 2104

MAIN PAPER

DECEMBER 2017

This examination paper consists of 3 pages

Time Allowed: 3 hours

Total Marks: 100

Special Requirements:

Examiner's Name: Mr T Madyangove/ B Chigara

INSTRUCTIONS

1. Answer any three questions in Section A and Section B is compulsory.
2. Each question carries 25 marks.

MARK ALLOCATION

QUESTION	MARKS (<i>For any selected four</i>)
1.	25
2.	25
3.	25
4.	25
5.	25
6.	25
TOTAL	100

SECTION A

Question 1

- a. What is meant by building economics? (3)
- b. Explain the following concepts
 - i. Value for money (5)
 - ii. Economic optimisation (5)
- c. Assess the four characteristics, which separate the construction industry from other manufacturing industries (12)

[25]

Question 2

Discuss the factors which affect supply of construction works in Zimbabwe.

[25]

Question 3

Examine the factors that affect construction labour productivity in Zimbabwe and other countries in Southern Africa.

[25]

Question 4

- a. What is meant by approximate estimating? (2)
- b. Explain the functions of approximate estimating in the building industry. (6)
- c. Discuss the following methods of approximate estimating suggesting the circumstances that warrant their use
 - i. Superficial area method (8)
 - ii. Elemental estimating (9)

[25]

Question 5

- a. What is meant by cost control? (5)
- b. Discuss cost management strategies that can be employed on real property development projects. (20)

[25]

SECTION B

Question 6

- a. 'Recognising the future cannot really be predicted'. To what extent can whole-life costing be useful to evaluate buildings' projects? (10)
- b. Your Client is considering between softwood, hardwood or aluminum windows for a house. Using the information provided below and using the Present Worth and Annual Equivalent (AE), evaluate the alternatives and advise the Client accordingly. The life expectancy for the building is estimated to be 60 years and the cost of 8 %. (15)

Description	Softwood	Hardwood	Aluminum
	(\$)	(\$)	(\$)
Initial cost	3000	5400	6600
Renewal	3180 every 15 years	5580 every 30 years	-
Redecoration	120 every 5 years	60 every 5 years	-
Cleaning	60 per annum	60 per annum	60 per annum

[25]