



# TECHNICAL UNIVERSITY OF MOMBASA

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SCHOOL OF ENGINEERING AND TECHNOLOGY  
DEPARTMENT OF ARCHITECTURE & BUILT ENVIRONMENT  
**UNIVERSITY EXAMINATION FOR:**  
DEGREE IN BACHELOR OF ARCHITECTURE  
**EAR 4305: BUILDING ECONOMICS**  
END OF SEMESTER EXAMINATION  
YEAR THREE SEMESTER ONE  
SERIES: DEC2024  
TIME: 2 HOURS  
DATE: DECEMBER, 2024

## **Instructions to Candidates**

You should have the following for this examination

*-Answer Booklet, examination pass and student ID*

This paper consists of **FIVE** questions. Attempt question ONE (Compulsory) and any other TWO questions.

**Do not write on the question paper.**

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### **QUESTION ONE**

- (a) Discuss the following terminologies:
- (i) Opportunity cost (2 marks)
  - (ii) Indirect costs (2 marks)
  - (iii) Direct costs (2 marks)
  - (iv) Marginal costs (2 marks)
  - (v) Sunk costs (2 marks)
- (b) Describe the circumstances under which the use value and exchange value of a property predominates. (10 marks)
- (c) Briefly explain who between these 2 persons is more likely to adopt sophisticated strategies to offset the uncertainties of a risky development. A person who is risk averse or a person who is a risk taker. (10 marks)

### **QUESTION TWO**

You own and occupy a large brick house in an old residential neighborhood. The area is being rezoned to allow multiple family occupancy. Give your reasons and the conditions under which you would decide to:

- a) continue to occupy the house as a single-family dwelling. (6 marks)
- b) divide the house into several flats. (6 marks)
- c) demolish the house and erect a new townhouse complex. (8 marks)

### **QUESTION THREE**

You are a developer of a Nairobi hotel that is designed to cater for visitors to the African Cup of Nations (AFCON) 2027. Piling and excavations for the six level basement car park have been completed when the AFCON organizers decide to hold the games, exclusively in Uganda and Tanzania because the new AFCON Stadium in Nairobi cannot be completed in time. Give the conditions under which would you decide to:

- a) Complete the construction of the hotel regardless. (10 marks)
- b) Complete the basement car park only. (10 marks)

#### **QUESTION FOUR**

- (a) Conducting a feasibility study is an important aspect of any project. Discuss (10 marks)
- (b) Discuss five areas of analysis when conducting a feasibility study. (10 marks)

#### **QUESTION FIVE**

- (a) What is an alternative and how is it important in decision making. Discuss (10 marks)
- (b) Examine the importance of Life Cycle Cost Analysis. (10 marks)