INTERNATIONAL UNIVERSITY OF EAST AFRICA
'Learning to Succeed'

FACULTY OF SCIENCE AND TECHNOLOGY

END OF SEMESTER EXAMINATIONS - DECEMBER 2025

PROGRAMME: BSEM
YEAR/SEM: YEAR 2/SEMESTER 1
COURSE CODE: BSE2105
NAME: URBANIZATION AND ENVIRONMENT

DATE:
TIME:

INSTRUCTIONS TO CANDIDATES:

SECTION A

Answer all questions in this section. (40 marks)

Question 1:

a. How does public participation in urban planning influence the success of urban development projects? (5 marks)
b. Distinguish between vertical farming and rooftop gardening in urban agriculture. (5 marks)
c. Why is waste management more of a concern in cities as opposed to rural areas? (5 marks)
d. Describe how public transport systems (like BRT) when integrated into urban planning can improve mobility and reduce congestion. (8 marks)
e. Define the term environmental footprint. (2 marks)
f. Define the following concepts as applied to urbanisation; (2 marks each)
i. Urban sprawl
ii. Urban planning
iii. Eco-city
iv. Zoning
v. Urban heat island
g. How does urban agriculture contribute to urban resilience? (5 marks)
h. Why are informal settlements such as slums considered more vulnerable to environmental disasters? (5 marks)

Question 2:

a. Why is waste management more of a concern in cities as opposed to rural areas? (5 marks)
b. Distinguish between vertical farming and rooftop gardening in urban agriculture. (5 marks)
c. How does public participation in urban planning influence the success of urban development projects? (5 marks)
d. Explain the following characteristics of modern urban planning; (3 marks each)
i. Inclusive
ii. Iterative
iii. Adaptive
e. Why are informal settlements such as slums considered more vulnerable to environmental disasters? (5 marks)
f. How does urban agriculture contribute to urban resilience? (5 marks)
g. Describe how public transport systems when integrated into urban planning can improve mobility and reduce congestion. (6 marks)

SECTION B

Answer any 3 questions. (60 marks)

Question 1:

Explain the major drivers of urbanisation globally and how each driver contributes to environmental change. (20 marks)

Question 2:

Discuss practical ways of minimizing the negative impacts of urbanisation on the environment? (20 marks).

Question 3:

When urbanisation is effectively managed, it can bring about various economical, environmental and social benefits. Discuss (20 marks)

Question 4:

What are the main environmental impacts of rapid urbanization locally and globally? (20 marks)

Question 5:

Describe the urban planning process, outlining each stage and its significance in urban development. (20 marks)

Question 6:

Assess the impacts of urbanisation on the following environmental aspects; (4 marks each)
i. Air quality
ii. Surface water quality
iii. Soil health
iv. Climate change
v. Groundwater quality and recharge

Question 7:

How are the characteristics of rural areas different from those of urban areas? Discuss the implications of each characteristic on the environment. (20 marks)

Question 8:

Define urban planning and discuss its main objectives (20 marks)

Question 9:

a. What is rural-urban migration? (2 marks)
b. Discuss the pull and push factors behind rural-urban-migration (18 marks)

Question 10:

How does urban planning contribute to effective environmental management? (20 marks)

Question 11:

a. Define the term urban agriculture. (2 marks)
b. Discuss the various techniques used in urban agriculture. (12 marks).
c. Despite the immense benefits of urban agriculture, it faces several challenges. What are the
challenges faced by urban farmers. (6 marks).

Question 12:

Examine the challenges of solid waste management in rapidly growing urban centers and propose sustainable solutions for low-income cities such as Kampala. (20 marks)