

FACULTY OF SCIENCE AND TECHNOLOGY END OF SEMESTER EXAMINATIONS - MAY 2024/2025

PROGRAMME: BSEM

YEAR/SEM: YEAR 2/SEMESTER 2

COURSE CODE: BSE2204

NAME: LAND USE AND ENVIRONMENT PLANNING

DATE: 2025-08-12

TIME: 9:00AM-12:00PM

INSTRUCTIONS TO CANDIDATES:

- 1. Read the instructions very carefully
- 2. The time allowed for this examination is STRICTLY three hours
- 3. Read each question carefully before you attempt and allocate your time equally between all the Sections
- 4. Write clearly and legibly. Illegible handwriting cannot be marked
- 5. Number the questions you have attempted
- 6. Use of appropriate workplace examples to illustrate your answers will earn you bonus marks
- 7. Any examination malpractice detected will lead to automatic disqualification.

DO NOT WRITE ANYTHING ON THE QUESTION PAPER

Section A Section A: Attempt all questions in this section (40 marks)

Ouestion 1:

- a. What are the major causes of land degradation and what strategies can be implemented to restore and maintain healthy land ecosystems? (8 marks)
- b. How does land sharing differ from land sparing? (6 marks)
- c. Giving at least 2 examples under each category, distinguish between habitable and uninhabitable land. (6 marks)
- d. How does intensive agriculture differ from extensive agriculture? Of the two, which one is more environmental friendly and why? (8 marks)
- e. How do land characteristics affect land use? (6 marks)
- f. With examples differentiate between land characteristics and land use requirements. (6 marks)

Section B Section B; Answer any 3 questions. (20 marks each)

Question 1:

With relevant examples, briefly explain the following terminologies as applied to land use and environmental planning (4 marks each)

- a. Environmental sustainability
- b. Land resources
- c. Land characteristics
- d. Land use requirements
- e. Land improvements

Question 2:

The aim of land use planning is to allocate space for various land uses in order to balance the needs of the communities with the sustainable use of resources. Why is land use planning necessary? (20 marks)

Question 3:

Actual land qualities can be improved to increase the suitability of a given piece of land to match the particular requirements of certain land use. What are the common examples of land improvement? (20 marks)

Question 4:

Discuss the steps and processes involved in the land use planning process (20 marks)

Question 5:

Discuss the challenges (hindrances) of land use planning both nationally & internationally. (20 marks)

Question 6:

- a. What are the key differences between land sparing and land sharing in terms of land use and biodiversity conservation? (8 marks).
- b. Of the two concepts mentioned in part a, which one offers maximum benefits to biodiversity conservation and

how? (6 marks).

c. What are the benefits and challenges of land sparing and land sharing? (6 marks).