UNIVERSITY OF ESWATINI
DEPARTMENT OF GEOGRAPHY, ENVIRONMENTAL SCIENCE AND
PLANNING
MAIN EXAMINATION: NOVEMBER 2021
B.A. SOCIAL SCIENCES IV

TITLE OF PAPER : LAND USE PLANNING

COURSE NUMBER : GEP418

TIME ALLOWED : THREE (3) HOURS

INSTRUCTIONS :
1. ANSWER THREE (3) QUESTIONS
2. QUESTION ONE IN SECTION A IS COMPULSORY AND ANSWER TWO QUESTIONS IN SECTION B.
3. ILLUSTRATE YOUR ANSWERS WITH EXAMPLES AND LARGE CLEARLY DRAWN DIAGRAMS WHERE APPROPRIATE.

ALLOCATION OF MARKS: QUESTION ONE (COMPULSORY) IS WORTH 40 MARKS WHILE THE REST ARE WORTH 30 MARKS EACH.

THIS PAPER MUST NOT BE OPENED UNTIL PERMISSION HAS BEEN GRANTED BY THE INVIGILATOR.

SECTION A
COMPULSORY

QUESTION 1

a) Explain the importance of land evaluation in the land use planning process.   (6 marks)

b) Identify and describe three common land evaluation systems used in the land use planning process.   (12 marks)

c) Table 1 below shows two farms, Farm A and Farm B, with two portions each (portions A1, A2 and B1, B2 respectively). The size of each of the farms is 50 hectares.

i)   Classify portions A1 and A2 of Farm A and portions B1 and B2 of Farm B according to land capability classes (LCCs); land suitability classes (LSCs); and land suitability sub – classes (LSSCs).   (12 marks)

ii)   State the appropriate land use for each and every portion.   (4 marks)

iii)   Use Table 2 below to estimate the values of Farm A and Farm B using the hypothetical prices for land parcels under the different land capability classes.

(6 marks)

(40 Marks)

Table 1 Land characteristics of portions of Farm A and Farm B

FARM A		FARM B	
Portion A1		*Portion B1*	
Size (ha):	28 ha	Size (ha):	39
Slope angle:	1°	Slope angle:	8°
Soil depth (cm):	150	Soil depth (cm):	38
Soil permeability:	good permeability:	(3) mod. Impermeable	
Wetness:	Wo	Wetness:	W1
Erosion:	(1) none Erosion:	2 moderate	
Hindrance to Cultivation	none	Hindrance to cultivation	boulders
Portion A2		*Portion B2*	
Size (ha):	21	Size (ha):	10
Slope angle:	3°	Slope angle:	12°
Soil depth (cm):	115	Soil depths (cm):	41
Soil permeability:	2 severe	Soil permeability:	rapid permeability
Wetness:	W3	Wetness:	W2
Erosion:	(1) none Erosion:	Erosion	3 severe
Hindrance to Cultivation:	none	Hindrance to cultivation:	Rocky

Table 2 Hypothetical prices of land parcels under different LCCs

Land Capability Classes	*Price (E/Ha)*
I	200 000
II	150 000
III	100 000
IV	50 000
V	25 000
VI	20 000
VII	15 000
VIII	10 000

SECTION B
ANSWER ANY TWO QUESTIONS

QUESTION 2

With the help of examples, discuss the land use planning aims and goals.

(30 Marks)

QUESTION 3

Discuss the factors influencing land use decisions among land users.

(30 Marks)

QUESTION 4

(a)   Using examples, explain the following concepts related to Land Use Planning:
        i)   Reversible land uses   (4 marks)
        ii) Irreversible land uses   (4 marks)
        iii) Multiple land uses   (4 marks)
        iv) Compatible land uses   (4 marks)
        v) Incompatible land uses   (4 marks)

(b)   Explain your understanding of "the best use of land" and how the "best land use" is identified.   (10 marks)

(30 Marks)

QUESTION 5

(a)   Identify and explain the differences in the physical appearance of areas under Eswatini Nation Land (SNL) tenure system and those under the Freehold Title Deed (FTD) system.   (15 marks)

(b)   Account for the environmental degradation on SNL areas.   (15 marks)

(30 Marks)