

UNIVERSITY OF ESWATINI
DEPARTMENT OF GEOGRAPHY, ENVIRONMENTAL SCIENCE
AND PLANNING

FINAL EXAMINATION, AUGUST 2020

BASS

TITLE OF PAPER: LAND USE PLANNING

COURSE NUMBER: GEP418

TIME ALLOWED: THREE (3) HOURS

INSTRUCTIONS:

- 1. ANSWER THREE QUESTIONS**
- 2. QUESTION 1 IS COMPULSORY**
- 3. ILLUSTRATE YOUR ANSWERS WITH EXAMPLES AND CLEARLY DRAWN DIAGRAMS WHERE APPROPRIATE**

ALLOCATION OF MARKS: QUESTION 1 (COMPULSORY) CARRIES 40
MARKS, WHILE THE REST CARRY 30
MARKS EACH

THIS PAPER SHOULD NOT BE OPENED UNTIL PERMISSION IS
GRANTED BY THE INVIGILATOR

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SECTION A: COMPULSORY

Question 1

- a) Explain the importance of land evaluation in the land use planning process. (6 marks)
- b) 'Von Thunen's Agricultural Land Use Theory contributed immensely to the theoretical aspects of land use planning, and many land use plans exhibit vivid influences of the theory.' Analyse the von Thunen's model of agricultural land use, highlighting its key elements and principles. (15 marks)
- c) Table 1 (Appendix A) 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 (LS SCs). (9 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)

SECTION B: ANSWER ANY TWO QUESTIONS

Question 2

- a) Using examples, explain the following concepts and circumstances under which they are applied:
- i) Permitted uses
- ii) Proscribed uses
- iii) Prescribed uses
- iv) Preferred uses (12 marks)
- b) Explain the relationships that exist between strategic environmental assessments (SEAs) and land use planning. (6 marks)

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

(30 Marks)

Question 3

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

(30 Marks)

Question 4

- a) Explain the significance of land tenure in land use planning. (15 marks)

- b) Discuss the key elements of land tenure systems, highlighting their influence on land users' attitudes towards land management. (15 marks)

(30 Marks)

Question 5

Discuss the factors influencing land use decisions among land users.

(30 Marks)

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APPENDIX A

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

<u>FARM A</u>		<u>FARM B</u>	
<u>Portion A1</u>		<u>Portion B1</u>	
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:	W0	Wetness:	W1
Erosion:	(1) none Erosion:	2 moderate	
Hindrance to Cultivation	none	Hindrance to cultivation	boulders
<u>Portion A2</u>		<u>Portion B2</u>	
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

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