UNIVERSITY OF SWAZILAND
DEPT. OF GEOGRAPHY, ENVIRONMENTAL SCIENCE AND PLANNING
FINAL EXAMINATION: DECEMBER 2007
BASS IV.

TITLE OF PAPER	:	LAND USE PLANNING
COURSE NUMBER	:	GEP 415
TIME ALLOWED	:	THREE (3) HOURS
INSTRUCTIONS	:	1. ANSWER THREE (3) QUESTIONS 2. QUESTION ONE IS COMPULSORY 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) Describe **three** land evaluation systems used in the land use planning process. (12 marks)

(c) Table 1 shows two hypothetical farms, Farm A and Farm B, with two portions each (portions A1, A2 and B1, B2 respectively). The sizes of the farms are 65 hectares each.

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

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

(iii) Use Table 2 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):	38 ha	Size (ha):	22
Slope angle:	2	Slope angle:	8
Soil depth (cm):	117	Soil depth (cm):	44
Soil permeability:	**5** good	Soil permeability:	**3** mod.
Wetness:	W0	Wetness:	W1
Erosion:	**1** none	Erosion:	**1** slight
Hindrance to Cultivation:	none	Hindrance to cultivation:	none
Portion A2		***Portion B2***	
Size (ha):	27	Size (ha):	43
Slope angle:	1	Slope angle:	37
Soil depth (cm):	110	Soil depths (cm):	18
Soil permeability:	**2** (severe)	Soil permeability:	**6** rapid
Wetness:	W3	Wetness:	W1
Erosion:	(**1**) slight	Erosion:	**4** very severe
Hindrance to Cultivation:	none	Hindrance to cultivation:	**o** rock outcrops

Table 2 Hypothetical Prices of Land Parcels under Different LCCs

Land Capability Classes	***Price (E/Ha)***
I	90 000
II	75 000
III	61 000
IV	46 000
V	40 000
VI	39 000
VII	32 000
VIII	19 000

SECTION B

ANSWER ANY TWO QUESTIONS

QUESTION 2

(a) With the help of examples, describe the Land Suitability Classification (LSC) structure. (15 marks)

(b) Identify and explain the crucial factors considered in Land Suitability Classification. (15 marks)

(30 marks)

QUESTION 3

(a) Explain the significance of land tenure in land use planning. (10 marks)

(b) Discuss the key elements of land tenure systems highlighting their influence on land users' attitudes towards land management. (20 marks)

(30 marks)

QUESTION 5

a) Outline the various planning steps a team of planners may undertake to formulate a land use plan of an area. (15 marks)

b) Discuss the weaknesses of the Land Use Planning process in Swaziland in relation to the planning procedure outlined in (a) above. (15 marks)

(30 marks)