UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER

PROGRAMME: BSc. in Agricultural Economics and Agribusiness
Management Year 4
BSc. in Agronomy Year 4
BSc. in Agricultural & BioSystems Engineering Year 4
BSc. in Agricultural Education Year 4
BSc. in Horticulture Year 4

COURSE CODE: AEM 404

TITLE OF PAPER: PROJECT PLANNING AND MANAGEMENT.

TIME ALLOWED: 2:00 HOURS

INSTRUCTIONS: 1. ANSWER ANY 4 QUESTIONS.
2. EACH QUESTION CARRIES 25 MARKS

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GRANTED BY THE CHIEF INVIGILATOR

Question One

(a) Explain what is meant by market price and economic price in project planning and management. **[6 marks]**

(b) Write short explanatory notes on the following:

(i) Plan (ii) Project (iii) Programme **[15 marks]**

(c) Give a reason why sunk costs should not be included in project costs

[4 marks]

Question Two

1 (a) List five benefits of Agricultural Projects and briefly discuss any three .

[14 marks]

(b) Mention two (2) types of subsidies and recommend any one for the government based on highlighted logical reasoning. **[7 marks]**

(c) Distinguish between indirect and direct transfer payment. **[4 marks]**

Question Three

2 Consider a farmer Raufu Dlamini, who applies nitrogen fertilizer to his rice and maize farm. In the 2011-2012 season, this fertilizer cost him E3.98 per kilogram. **Use the table of the crops response to nitrogen fertilizer given below to answer the following questions:**

(a) when is the farmer resource use efficient on his farm? **[5 marks]**

(b) what will be your advice for the farmer as regards quantity of fertilizer to use if;

(i) the price of the fertilizer double **[10 marks]**

(ii) the price falls to E1.50 **[10 marks]**

Table1: **Crop Response to Nitrogen Fertilizer on Raufu Dlamini farm**

	Paddy rice			Shelled maize		
Nitrogen (kgs/ha)	Yield (kgs/ha)	Value	MVP	Yield (kgs/ha)	Value	MVP
0	3,442	3,614		2,600	2,688	
10	3,723	3,909	29.50	2,830	2,926	23.80
20	3,971	4,170	26.10	3,040	3,143	21.70
30	4,187	4,396	22.60	3,230	3,340	19.70
40	4,370	4,588	19.20	3,400	3,516	17.60
50	4,520	4,746	15.80	3,550	3,671	15.50
60	4,637	4,869	12.30	3,680	3,805	13.40
70	4,721	4,957	8.80	3,790	3,919	11.40
80	4,772	5,011	5.40	3,880	4,012	9.30
90	4,791	5,031	2.00	3,950	4,084	7.20
100	4,777	5,016	-1.50	4,000	4,136	5.20
110				4,030	4,167	3.10
120				4,040	4,177	1.00
130				4,030	4,167	-1.00

Question Four

(a) Write a short note on each of the following:
(i) Benefit-Cost ratio   **[5 marks]**
(ii)Net Present value   **[5 marks]**
(iii)Internal Rate of Return   **[5 marks]**
(iv)Sensitivity Analysis   **[5 marks]**
(v) Net-Investment ratio   **[5 marks]**

Question Five

(a) Give the 2-part rule of incremental yield approach of selecting mutually exclusive projects   **[5 marks]**
(b) Capital item for a project for the first 2years are E5,000 and E3,000 respectively. It has E1,000 and E1,200 as operation /maintenance and production costs respectively for years 3,4 and 5. However, no revenue in years 1 and 2 and a constant revenue of E4,000 for years 3,4 and 5 is earned. If the cost of capital is 15% and discount factors at this rate for 5 years are: 0.870, 0.756, 0.658, 0.572 and 0.497 respectively, calculate
- (i) the B/C ratio,   **[6marks]**
- (ii)NPV and   **[6 marks]**
- (iii)N/K ratio of the project.   **[8 marks]**