KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2017/2018

FIRST SEMESTER EXAMINATION FOR THE DEGREE OF MASTER OF SCIENCE

(AGRICULTURAL ECONOMICS)

KBT 808: ADVANCED AGRICULTURAL PROJECT MANAGEMENT

DATE: THURSDAY 1ST FEBRUARY 2018 TIME: 2.00 P.M. – 5.00 P.M.

INSTRUCTIONS

Answer question One and any other Three questions

1. Write short notes on the following:

    a) Domestic Resource Cost (5Marks)

    b) 'With and without project" concept (5 Marks)

    c) Sources of uncertainty in project planning (5 marks)

    d) Two necessary adjustments on financial prices to reflect economic values (5 Marks)

2. a) Discuss why agricultural project analysis proves to be a poor predictor of the actual project outcome (10 marks)

    b) Explain the steps that should be should be followed while carrying out an analysis of an agricultural project that would lead to better outcome predictions (10 marks)

3. a) Explain the term "Sustainability" in the context of Agricultural Project (5 marks)

    b) Discuss the planning and implementation actions that would lead to sustainable agricultural projects (15 Marks)

4. The following data is extracted from a livestock improvement project in one of the East African countries:

Year	Capital items (in US$ Millions)	Operational Maintenance in US $ Million	Production Cost	Value of Incremental Production Gross Benefits (US$ Million)	Discounting Factor at 12%
1	1.09	0	0	0	0.893
2	4.83	0	0	0	0.797
3	5.68	0	0	0	0.712
4	4.5	0	0	0	0.636
5	1.99	0	0	0	0.567
6	0	0.37	0.35	1.69	0.507
7	0	0.37	0.60	3.34	0.452
8	0	0.37	0.92	5.3	0.404
9	0	0.37	1.3	6.7	0.361
10 – 30	0	0.37 (a)	1.6 (b)	8.4 (a)	2.727 (b)

Notes: (a) - annual amount for years 10 through 30 inclusive

(b) - present worth of an annuity for years 10 through 30 inclusive

Required:

a) Calculate

i) Benefit Cost Ratio of the project at 12% (5 marks)

ii) Net Present Worth at 12% (5 Marks)

b) Interpret your answers obtained in a) i) and a) ii) above (10 Marks)

5. You are appointed the Senior Advisor on Projects in your country's Government's Ministry of Agriculture. You are provided with the following four project alternatives with a view to advice on the best selection the Ministry should undertake

Year	Incremental cost				Value of incremental production (gross benefit)
	Capital items	*Operation and maintenance*	*Production*	*Gross*	
Project I					
1	30,000	—	—	30,000	—
2	—	2,000	3,000	5,000	20,000
3	—	2,000	3,000	5,000	20,000
4	—	—	—	—	—
Total	30,000	4,000	6,000	40,000	40,000
Project II					
1	30,000	—	—	30,000	—
2	—	2,000	3,000	5,000	20,000
3	—	2,000	3,000	5,000	20,000
4	—	2,000	3,000	5,000	9,100
Total	30,000	6,000	9,000	45,000	49,100
Project III					
1	30,000	—	—	30,000	—
2	—	2,000	3,000	5,000	7,000
3	—	2,000	3,000	5,000	19,000
4	—	2,000	3,000	5,000	31,000
Total	30,000	6,000	9,000	45,000	57,000
Project IV					
1	30,000	—	—	30,000	—
2	—	2,000	3,000	5,000	7,000
3	—	2,000	3,000	5,000	31,000
4	—	2,000	3,000	5,000	19,000
Total	30,000	6,000	9,000	45,000	57,000

a) Discuss any four tools of undiscounted measures of project worth one would apply to choose the best project alternative (10 marks)

b) Apply any one or more tools in combination (if necessary) to arrive at the best project alternative (10 marks)