



MACHAKOS UNIVERSITY

University Examinations for 2019/2020 Academic Year

SCHOOL OF AGRICULTURAL SCIENCES

DEPARTMENT OF AGRIBUSINESS MANAGEMENT AND TRADE

FOURTH YEAR SECOND SEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE IN AGRIBUSINESS MANAGEMENT

BACHELOR OF SCIENCE IN AGRICULTURAL EDUCATION AND EXTENSION

AGB 403: AGRICULTURE PROJECT MANAGEMENT

DATE: 23/10/2020

TIME: 8.30-10.30 AM

INSTRUCTIONS;

Answer question one and two other questions

QUESTION ONE (30 MARKS)

- a) You are assigned to an irrigation project in Machakos County as a project officer. Explain how you would distinguish between a milestone and an activity in the irrigation project. (4 marks)
- b) A herbicide project has been introduced in Nyeri County. You are required to advise on how to conduct an economic and financial analysis in project management. Explain how you would conduct this task. (8 marks)
- c) You are assigned as a project management officer within a maize seed distribution project in Kitale. Explain to key stakeholders what elements of this project are likely to generate costs (10 marks)
- d) A ferterliser distribution project is set up in Nakuru County to assist smallholder farmers in the localities. However, several conflicts have been reported to you as the project officer.
- i. What two things would cause conflicts in the fertilizer distribution project (5 marks)
 - ii. What three ways would be used in resolving conflicts in (i) (3 marks)

QUESTION TWO (20 MARKS)

- a) A community has been running an agriculture project. However, they have no experience with agriculture projects. You are consulted as a project officer in Nakuru County five years into the project. How would you conduct a cash flow analysis? (10 marks)
- b) i You are consulted by a ranching farm to assist in the valuation of their land. Explain and justify three methods that you would follow in valuation of land (6 marks)
- ii Gulu Ltd is considering buying a machine costing sh,100,000. there are two options machine A and B. Machine A will generate revenue of sh50,000, sh50,000 and sh 20,000 in year 1,year 2 and year 3 respectively. Machine B will generate revenue of sh, 30,000, sh 40,000 and sh,60,000 in year 1, year 2 and year 3 respectively. How do you evaluate discounted payback period and make a decision on which machine to purchase? (4 marks)

QUESTION THREE (20 MARKS)

- a) You are recently assigned to establish a project in Meru County, where there is great potential for food production. However, the area experiences erratic rainfall and draught.
 - i. Which are three arguments for starting the project in (a)? (3 marks)
 - ii. Explain three potential constraints to implementing project in (a) (6 marks)
- b) Describe how you would evaluate the performance of the project in (a) (11 marks)

QUESTION FOUR (20 MARKS)

- a) Explain three time estimates in project evaluation review technique (PERT) (6 marks)
- b) An agricultural project has a list of tasks to be performed whose times estimates are given in the table below:

Predecessor	Activity name	t_0 (optimistic time)	t_m (most likely estimate)	t_p (pessimistic time)
-	A	4	6	8
-	B	2	3	10
A	C	6	8	16
B	D	1	2	3
B	E	6	7	8
A	F	6	7	14
C	G	3	5	7
D	H	4	11	12
A	I	2	4	6
E,G,H	J	2	9	10

- i. Draw project network (5 marks)
- ii. Find the critical path (3 marks)
- iii. Find the probability that the project is completed in 19 days. (6 marks)

QUESTION FIVE (20 MARKS)

- a) (i) Average price of an egg is sh.20 and during the previous season Dole Farm sold 500 trays of eggs for sh.10000. Based on financial sensitivity analysis if customer traffic increases by 10% then sales increases by 7%. Determine the sales made by an adjustment in sales traffic by 20% and 100% through sensitivity analysis (5 marks)
- ii) Koti ltd is starting the project at a cost of sh,100,000. The project will generate cash flow of sh,40,000, sh,50,000 & sh,50,000 in year 1 and year 2 respectively. The company WACC is 10%. Find out Net Present Value (5 marks)
- b) A sisal project is set up in a community in Rongai in Kajiado County. You are required to use a Gantt chart to show the brake down of the project activities over a period of five years (10 marks)