MACHAKOS UNIVERSITY

University Examinations for 2019/2020 Academic Year

SCHOOL OF BUSINESS AND ECONOMICS

DEPARTMENT OF ECONOMICS

FOURTH YEAR SECOND SEMESTER EXAMINATION FOR

BACHELOR OF ECONOMICS AND STATISTICS

BACHELOR OF ECONOMICS AND FINANCE

BACHELOR OF ECONOMICS

BACHELOR OF ARTS

EAE 412: PROJECT APPRAISAL

DATE: 27/10/2020 **TIME: 2:00 – 4:00 PM**

INSTRUCTIONS:

- **i) Answer question one (Compulsory) and any other two questions**
- **ii) Do not write on the question paper**
- **iii) Show your working clearly**

QUESTION ONE (COMPULSORY) (30 MARKS)

a) Consider the following cash flows from two projects; A and B:

Year	Cash flows of A (kshs)	Cash flows of B (kshs)
0	(100,000)	(100,000)
1	50,000	20,000
2	30,000	20,000
3	20,000	20,000
4	10,000	40,000
5	10,000	50,000
6	---	60,000

i) Using discounted cash-flows, determine the payback period for projects A and B above and highlight some short comings of the pay-back period as a method of appraising projects. (assume r is equal to 12 %). (12 marks)

ii) Using the B/C ratio, recommend on the best project. (6 marks)

b) Explain your understanding of the following concepts; (12 marks)

i) Return of investment

ii) Sensitivity analysis

iii) Net social benefit

iv) Uncertainty

v) Risk premium

vi) Programs

QUESTION TWO (20 MARKS)

a) The table below gives information about two projects under consideration for Investment.

Sales season	Project L		Project K	
	P[E]	Outcome if season occurs	P[E]	Outcome if season occurs
1	0.25	200,000	0.14	800,000
2	0.15	300,000	0.23	500,000
3	0.42	150,000	0.21	190,000
4	0.05	900,000	0.35	290,000
5	0.13	700,000	0.07	450,000

i) Calculate three measures of risk for each of the projects. (12 marks)

ii) If only one of the projects has to be implemented, which one would you recommend and why? (2 marks)

b) Explain any four non-monetary factors that would be further considered before investing in any of the projects in question 2(a) above. (6 marks)

QUESTION THREE (20 MARKS)

a) Explain how each of the following factors influence project decisions.

i) Controllability (3 marks)

ii) Endorsement (3 marks)

iii) Compatibility (3 marks)

b) A donor grant of $ 200,000 has been extended to the county government of Makueni to support establishment of an income generation project towards realization of a sustainable revenue source. The governor's office has two proposals of projects each costing an initial investment of $ 200, 000. After the establishment, each projects' estimated five year cash flows in $ are projected to be as follows;

Year	1	2	3	4	5
Project A	100,000	80,000	70,000	50,000	48,000
Project B	120,000	100,000	80,000	52,000	50,000

i) Suppose the cost of capital is 10%. Use the NPV approach to determine which project the county should support. (6 marks)

ii) Assume there is an estimated risk premium of 5% attached to the project, which project should the county support? (5 marks)

QUESTION FOUR (20 MARKS)

a) Briefly discuss any four decision making criteria under uncertainty that you know. (12 marks)

b) Describe the contexts in which NPV become useful in project evaluation and explain the decision criteria in each case. (8 marks)

QUESTION FIVE (20 MARKS)

a) In evaluation of some projects shadow prices are used in estimating costs and benefits. Explain the circumstances when shadow prices can be used. (4 marks)

b) Using a relevant diagram, briefly discuss the project phases. (10 marks)

c) Describe the characteristic features of the project cycle management approach that makes it most preferred by planners in development projects. (6 marks)