



MACHAKOS UNIVERSITY

University Examinations for 2022/2023 Academic Year

SCHOOL OF BUSINESS, ECONOMICS AND HOSPITALITY AND TOURISM

MANAGEMENT

DEPARTMENT OF ECONOMICS

FOURTH YEAR FIRST SEMESTER EXAMINATION FOR

BACHELOR OF ECONOMICS

BACHELOR OF ECONOMIC AND STATISTICS

BACHELOR OF ECONOMICS AND FINANCE

EAE 412: PROJECT APPRAISAL

DATE:

TIME:

INSTRUCTIONS: Answer Question ONE and any other Two questions

QUESTION ONE (COMPULSORY)

- a) When developing projects, project appraisal is an important activity to evaluate key factors of the project to check the viability of a project proposal.
- (i) Explain the importance of Project Appraisal Management. (6 marks)
- (ii) Discuss the types of evaluation done in projects (8 marks)
- b) Suppose the manufacturers said the operating costs are likely to be Kshs. 3,500 at the worst or below Kshs. 500 at the best and gave their own best estimate of Kshs. 2,000.

Required

Calculate $\bar{X}$ and standard deviation using

- (i) Triangular distribution (3 point statistics) (3 marks)
- (ii) Beta distribution (3 marks)

- c) The government is considering construction of a bridge over the river. It is estimated that after the bridge is constructed, 250,000 persons will cross the river on the bridge. The bridge is expected to cost Ksh. 3 million initially and its annual maintenance cost would be Ksh. 10,000. It has an indefinitely long life. Once the bridge is constructed, the ferry operator is expected to close down the ferry service and sell the ferry boats for Ksh. 100,000. The ferry operator charges Ksh. 3 per person. It costs him Ksh. 2 per person. 50,000 persons use the ferry service.

Required: - Define the social cost and benefits of constructing the bridge assuming that the monetary figures given in the problem are economic values. (6 marks)

- d) Daima Dairies intends to invest in a machine for milk processing. It requires an initial capital of 225,000 and is expected to generate the following net inflows
 Year 1 \$95,000 Year 2 \$80,000 Year 3 \$60,000 Year 4 \$55,000 Required: Compute Net Present Value of the project if the minimum desired rate is 12%. (4 marks)

QUESTION TWO (20 MARKS)

- a) Use the following pay off matrix to explain the decision-making criteria appropriate to uncertainty as listed below the matrix

N S	1	2	3	4
1	2	2	0	0
2	1	1	1	1
3	0	4	0	0
4	0	3	0	0

- (i) The wald criterion (4 marks)
- (ii) The minimax regret criterion (4 marks)
- (iii) The index of pessimism criterion (4 marks)
- b) Consider a development organization of your own choice and conduct an analysis of the qualitative aspects that guide project decisions (8 marks)

QUESTION THREE (20 MARKS)

- a) Assume you are a project manager, by use of a hypothetical project; explain the activities you would carry out in each stage of the project cycle to ensure its success. (10 marks)
- b) XYZ Ltd is considering the lease of equipment which has a purchase price of Sh.800,000. The equipment has an estimated economic life of five years. Depreciation is 25% on written down values. The lease rentals per year are Sh.200,000. The before tax interest rate is 10%. The corporation tax is 30%. Using NAL analysis advise management whether to lease the machine. (10 marks)

QUESTION FOUR (20 MARKS)

- a) Discuss three approaches to risk management in the implementation of development projects. (10 marks)
- b) Concept papers are summaries of issues that reflect the interests of the writer, with the intent of obtaining funds for the project from donors. Explain the steps of writing the concept paper. (10 marks)

QUESTION FIVE (20 MARKS)

- a) Nikit company wish to invest sh100,000 in one of the two projects B and C. The interest rate is 10%. The projects cash flows are as follows

Project	Year1	Year2	Year3
B	20,000	40,000	120,000
C	100,000	30,000	30,000

Rank the projects using

- i) Net present value (5 marks)
- ii) Internal rate of return (7 marks)
- iii) Explain why there is a conflict in ranking (2 marks)
- b) Discuss three limitations of capital asset pricing model (6 marks)