



(University of Choice)

**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)**

MAIN EXAMINATION

**UNIVERSITY EXAMINATIONS
2021/2022 ACADEMIC YEAR**

FIRST YEAR SECOND SEMESTER EXAMINATIONS

**FOR THE DEGREE OF MASTER OF SCIENCE IN
ECONOMICS**

COURSE CODE: ECO 812

COURSE TITLE: PLANNING AND PROJECT APPRAISAL

DATE: Tuesday, 26-04-2022 TIME: 9:00 -12:00

INSTRUCTIONS TO CANDIDATES

ATTEMPT QUESTION **ONE** AND ANY OTHER **THREE**

TIME: 3 Hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 3 Printed Pages. Please Turn Over.

QUESTION ONE

- a) Mention the emerging global and domestic constraints to economic planning in a transitioning economy and suggest how they can be overcome. (10 marks)
- b) The use of financial tools for appraising development projects has various limitations. Explain how they can be minimized to enhance the reliability of results. (8 marks)
- c) Highlight the principal control measures that should be taken to ensure that planning objectives are achieved in a timely and effective manner. (10 marks)
- d) Describe the essence and applications of social discounting and shadow pricing in project appraisals (12 marks)

QUESTION TWO

In line with national goals of universal access to clean energy, the County government is planning a rural micro-energy project in a rural area.

- a) Describe the considerations to be made in a social analysis of the project (6 marks)
- b) Identify, using clear diagrams the various tools that can be used for an environmental impact analysis of the project (14 marks)

QUESTION THREE

The Department of Health is considering the acquisition of a petrol and electrical powered mobile clinic. Both options have a usable life of 5 years with variable costs amounting to 20% of investment cost, with a discounting rate of 10%.

The petrol operated unit has a capital outlay of \$5000 with annual fixed costs of \$300 and annual revenue of \$1600. The electrical unit has a capital outlay of \$6000 with annual fixed costs of \$400 and annual expected revenue of \$2500.

Required:

- a) Identify the most viable option by assessing the following economic indicators:
- i. Project payback period (5 marks)

- ii. Net present value (7 marks)
- b) Highlight the essence of stakeholder participation in this exercise. (8 marks)

QUESTION FOUR

Critically discuss the essence of adopting the following models in project planning:

- a. Harrod Domar Growth model
- b. Social accounting matrix (SAM)
- c. Keynesian aggregate growth model (20 marks)

QUESTION FIVE

- a) As a Planning Officer, describe the key steps to be taken when planning for a proposed waste recycling plant. (10 marks)
- b) Explain, using a clear diagram, the application of effective monitoring and evaluation for this project. (10 marks)

QUESTION SIX

- a) The State energy agency is planning for a fuel pipeline project. As a Project Officer, explain the rationale of a risk and sensitivity appraisal and describe, using clear diagrams, the various tools that will be adopted for this exercise: (12 marks)
- b) Discuss the various domestic mechanisms for financing this project. (8 marks)

