UNIVERSITY OF SWAZILAND
FACULTY OF SOCIAL SCIENCE
DEPARTMENT OF ECONOMICS

MAIN EXAMINATION PAPER: MAY, 2008

TITLE OF PAPER: PROJECT EVALUATION

CORSE CODE: ECON 305

TIME ALLOWED: THREE (3) HOURS

INSTRUCTIONS

1. ANSWER **FOUR** QUESTIONS. TWO FROM SECTION A AND TWO FROM SECTION B.
2. ALL QUESTIONS CARRY EQUAL MARKS OF 25 EACH

DO NOT OPEN THIS PAPER UNTIL THE INVIGILATOR HAS GRANTED PERMISSION

SECTION A

Question 1

(a) Why is cost benefit Analysis so crucial in modern day decision making? [6 marks]

(b) Discuss the four types, giving examples of each, of costs that any CBA should attempt to consider. [12 marks]

(c) The concept of Cost Benefit Analysis becomes relevant in situations where multiple projects are to be considered. Otherwise in situations where only one project is considered it would be unnecessary to conduct a CBA. Give your opinion on this view. Fully support the position you take. [7 marks]

Question 2

(a) Investment analysts argue that discounted measures of project worth are superior and preferred to undiscounted measures. Do you agree with this view? Support your answer. [5 marks]

(b) Your first assignment in your new position as an Assistant Economic Planner at the Ministry of Economic Planning and Development is to evaluate two new capital project proposals. Because this is your first assignment, you have been asked not only to provide a recommendation, but also to respond to a number of questions aimed at judging your understanding of the project appraisal process. This is a standard procedure for all new Economic Planners at the ministry and will serve to determine whether you are moved directly into the project planning unit or are provided with remedial training. The memorandum you received outlining your assignment is as follows:

To: The New Assistant Economic Planner
From: M.Dlamini (P.S. Economic Planning)

Re: Project Analysis

Provide an evaluation of two proposed projects, both with 5 year expected lives and identical initial outlays of E110, 000. Both these projects would enhance GDP, and as a result, the required rate of return on both projects has been established at 12%. The expected after tax cash flows from each project are:

	Project A	Project B
Initial Outlay	(E110,000)	(E110,000)
Year1	20,000	40,000
Year 2	30,000	40, 000
Year 3	40,000	40,000
Year 4	50,000	40.000
Year 5	70,000	40,000

(i) What is the payback period on each project? If the ministry imposes a 3 year maximum acceptable payback period, which of these projects should be accepted? [8 marks]

(ii) What are the criticisms of the Payback period method? [6 marks]

(iii) What are the discounted Payback periods for each of these projects? If the ministry requires a 3 year maximum acceptable discounted payback period on new projects, which of the projects should be accepted? [6 marks]

Question 3

(a) A group of engineers is interested in forming a company to produce smoke detectors. They have developed a design and estimate that variable costs per unit, including materials, labour and marketing costs, are E22.50. Fixed costs associated with the formation , operation , and management of the company and the purchase of equipment and machinery total E250,000

They estimate the selling price will be E30 per detector.

(i) Determine the number of smoke detectors which must be sold in order for the firm to break even on the venture. [5 marks]

(ii) Preliminary marketing data indicate that the firm can expect to sell approximately 30,000 smoke detectors over the life of the project if the detectors are sold for E30 per unit. Determine the expected profits at this level of output. [5 marks]

(b) On the basis of the following data explain the sources of conflict between the Internal rate of return method and the Net present value method of project analysis. Assume a hurdle rate of 10%. [15 marks]

CASHFLOWS		
YEAR	Proposal A	Proposal B
0	(E23,616)	(E23,616
1	10,000	0
2	10, 000	5000
3	10, 000	10, 000
4	10,000	32, 675

Question 5

(a) What is sensitivity analysis? What benefits does it confer to project analysis? [10 marks]

(b) Discuss the benefits of the Critical Path Method as a project planning and control tool. [10 marks]

(c) Define what is meant by evaluation and outline the basic aims of any evaluation exercise. [5 marks]

SECTION B

Question 5

(a) With the aid of suitable examples distinguish between a "Unilateral Externality" and a Reciprocal Externality" [5 marks]

(b) Describe the externalities that were associated with the construction of the Mliba – Msahweni highway. [5 marks]

(c) Describe the four methods of valuing life and health which E.J. Mishan considers objectionable or inappropriate. Indicate the grounds on which each method is deemed inappropriate. [15 marks]

Question 6

(a) Lack of participatory planning, implementation and evaluation, has adverse effects on the community projects. Discuss. [10 marks]

(b) State other key guidelines which have to be considered whenever we plan community projects apart from the participatory dimension. [8 marks]

(c) "information sharing is an important aspect of project evaluation." Briefly indicate the type of information and audience you can share this valuable information. [7 marks]

Question 7

(a) Why is the analysis of risk important in investment analysis? Discuss any three sources of risk [10 marks]

(b) Explain the concept of Scenario analysis and indicate how it is applied in project analysis. [15 marks]

Question 8

(a) What is sensitivity analysis? Discuss any four factors to which projects are most sensitive. [16 marks]

(b) A financial officer estimated the cash flow of a machine in period t, using the following model:

$$CF_t = (m \times s) - (m \times u) + (c/n)$$

Where;

m = market size
s = the selling price per unit
u = the unit cost of the product
c = the cost of the machine
n = the life of the machine in years

If the data below represents the values for each of the above variables, determine the annual cash flow estimate of the machine. Also ascertain the impact of raising selling price per unit to E1.25 and what recommendation is the officer likely to suggest?

m = 100,000 units, s = E1 ;u = E0,75 ;n = 3, and c = E10,000 [9 marks]