

UNIVERSITI SAINS MALAYSIA
Master of Business Administration

First Semester Examination
Academic Session 1997 / 98

September 1997

AGW614 - MANAGERIAL ECONOMICS

Time : [3 hours]

INSTRUCTIONS:

Please make sure that this examination paper consists of **FOUR (4)** printed pages before you begin.

Answer all **SIX (6)** questions.

1. As capital investment analyst for Company X, you have been asked to evaluate the advisability of purchasing a new machine to accommodate the projected increases in demand for product produced. This new machine is expected to last 5 years, and you will be calculating the cashflows of the project for that period.

The purchase price of this machine is expected to be RM140,000 and in addition, it will cost RM10,000 to install it. The machine will be depreciated on a straight-line basis over 5 years to a zero salvage value. However it is expected to have a market value of RM10,000 at the end of 5 years.

The following are the estimated cashflows of the project:

Cashflows	Year 1 (RM)	Year 2 (RM)	Year 3 (RM)	Year 4 (RM)	Year 5 (RM)
Revenue	50,000	80,000	80,000	80,000	40,000
Costs and Expenses	25,000	40,000	40,000	40,000	20,000

Because of increased production, additional working capital of RM 15,000 will be required at $t = 0$ (today) and will be returned to the bank at the end of the project period. The corporate tax rate is 40 percent, and the company's cost of capital is 12 percent per annum.

Would you recommend to purchase the machine based on the Net Present Value method? Why?

(20 marks)

2. Two mutually exclusive projects, projects A and B, have the following investment and cashflows:

	<u>Project A</u>	<u>Project B</u>
Investment at period $t = 0$	RM 40,000	RM 40,000
Cash inflow at period $t = 1$	RM 10,000	RM 20,500
Cash inflow at period $t = 2$	RM 10,000	RM 20,500
Cash inflow at period $t = 3$	RM 10,000	RM 20,500
Cash inflow at period $t = 4$	RM 47,000	RM 20,500

- a. Calculate the Net Present Value and Internal Rate of Return of each project. The cost of capital is 12 percent.
- b. Which of the two projects would you accept ? Explain.
- c. Sketch the two projects Net Present Value and the Internal Rate of Return profiles.

(20 marks)

3. Company Y produces a line of office file cabinets. The company's economist, having investigated a large number of past data, has established the following demand function for these office cabinets:

$$Q = 10,000 + 60 B - 100 P + 50 C$$

- where Q = annual number of cabinets sold
B = index of non-residential construction
P = average price per office cabinet charged by Company Y
C = average price per office cabinet by Company Y's closest competitor

It is expected that next year's nonresidential construction index will stand at 160, average price of office cabinet charged by Company Y will be RM40, and the competitor's average price will be RM35.

- a. Forecast next year's sales of office cabinet by Company Y.
- b. What will be the effect if the competitor lowers its price to RM32 ?
What will be the effect if it raises its price to RM36 ?
- c. What will happen if Company Y reacts to the decrease mentioned in part b by lowering its price to RM37 ?
- d. If the index forecast of nonresidential construction was wrong, and it turns out to be 140 next year, what will be the effect on Company Y's sales ?

(20 marks)

4. It is well-known that firms all over the places are interested in having full knowledge about inflation in countries where they are in operation since it will affect their-decisions on various aspects of operation.

- a. Describe in detail the theories of inflation. Illustrate also your answers in graphs.
- b. Explain government policies in order to combat inflation and why it is necessary to have such policies ?

(20 marks)

5. As many firms are now operating internationally, it is inevitable that the concepts of international trade, international balance of payments, and fluctuations in the exchange rates be fully known by the executives of these firms.

- a. Describe and explain what is meant by balance of payments of a country (its system of recording the international transactions, its compositions, and causal relationship between its components).
- b. Explain how the exchange rate of a country is determined.
- c. Explain how the exchange rate fluctuates.

(10 marks)

6. Competition in international market is determined by the comparative advantage of nations and the price of export.

- a. Describe and explain the theories of comparative advantage.
- b. How devaluation policy is expected to increase the international competitiveness.
- c. Explain the criticism put forward on devaluation policy which is executed in developing countries.

(10 marks)