



NATIONAL OPEN UNIVERSITY OF NIGERIA
14/16 AHMADU BELOW WAY, VICTORIA ISLAND, LAGOS
SCHOOL OF MANAGEMENT SCIENCES
JUNE/JULY, 2013 EXAMINATIONS.

COURSE CODE: BHM713 CREDIT UNIT: 2

COURSE TITLE: CAPITAL INVESTMENT AND FINANCIAL DECISIONS

TIME ALLOWED: 2 hrs.

Instructions:

- 1. Attempt question Number one (1) and any other two (2).**
- 2. Question number 1 is compulsory and carries 30 marks, while the other questions carry equal marks each**

Present all points in a coherent and orderly manner

QUESTION 1

Modern Tech Services Ltd is considering two alternative projects for a business expansion programme in the Northern part of the country. The projects have the following naira cash flow profiles according to the data supplied by the company's accountant:

| Year | Project I | Project II |
|------|--------------|--------------|
| 0 | -1 Million | -3 Million |
| 1 | -2 Million | 0.20 Million |
| 2 | -95 Million | -50 Million |
| 3 | 0.85 Million | 0.65 Million |
| 4 | 0.78 Million | 0.75 Million |
| 5 | 0.62 Million | 0.80 Million |
| 6 | 0.40 Million | 1.90 Million |
| 7 | 0.10 Million | 0.20 Million |

Required:

- a. Calculate the payback period for each project
- b. Based on payback periods, advice which of the two projects should be chosen
- c. State the advantage and disadvantages of the payback period criterion on investment appraisal

1b) Find the accumulated amount of the following:

- N250, 000 after a period of 3 years at $J = 6\%$ and $M = 2$
- N325, 000 at the end of 6 years and 3 months at $J_4 = 0.10$
- N275, 000 after the period of $3\frac{1}{2}$ years at $J_4 = 8\%$
- N250, 000 after the period of 10 years at 6% converted quarterly

QUESTION 2

List and explain properly the basis for classifying investments

QUESTION 3

3a) List and explain the further classifications of investments.

3b) Decisions could be loosely grouped into five, discuss them.

QUESTION 4

4a) What is NPV and what are the 3 decision rules?

4b) Ayodele Engineering Co. is trying to decide which type of machine tool to buy, of the two types available. Type A costs N10,000,000 and the net annual income from the first three years of its life will N3,000,000, N4,000,000 and N5,000,000 respectively. At the end of this period, it will be worthless except for scrap value of N1,000,000.

To buy a type A tool, the company would need to borrow from a Finance Group at 9%. Type B will last for three years too, but will give a constant net annual cash flow of N3,000,000 it costs N6,000,000 but credit can be obtained from its manufacturer at 6% interest. It has no ultimate scrap value.

Which investment would be the more profitable? Give reason for your answer.

4c) Femi Nig. Ltd is proposing to purchase a new machine for N20,000,000 which will have a life of 6 years. The cash inflows estimated to be generated by the machine are as follows: Year 1 = N12,400,000; Year 2 = N6,000,000; Year 3 = N7,100,000; Year 4 = N2,203,000 and Year 5 = N2,774,000 and removed in year 6 an estimated net cash outflow of N1,477,000.

The company's cost of capital is 15%. Should investment be proceeded with?

QUESTION 5

5a) What is inflation?

5b) Explain Synchronised and Differential Inflation

5c) What are the methods of Incorporating Uncertainty and Risk when Appraising projects?

5d) What are the advantages and disadvantages of Sensitivity Analysis?