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UNIVERSITY EXAMINATIONS 2024/2025

THIRD YEAR FIRST SEMESTER EXAMINATION FOR DEGREE OF BACHELOR OF COMMERCE

BFC 3381: PROJECT APPRAISAL

DATE: DECEMBER 2024 **TIME: 2 HOURS**

INSTRUCTIONS: Answer Question ONE and any other TWO questions.

QUESTION ONE (30 MARKS)

Repco Corporation is considering an investment in a new machine for the proposed new product line. The new machine will cost Kshs 2,000,000 with shipping cost of Kshs 50,000 and installation cost ofKshs 30,000. The company has already spent Kshs 20,000 on research to ensure that they acquire the best machine that will enable them meet the market demand of the new products. The new machine will be housed in one the company warehouses which is currently not in use but would fetch an annual rent of Kshs 100,000 if rented. The machine would require two additional employees of a level of supervisor with annual salary of Kshs 200,000 each. The management of the new product line is expected to consume 20% of the company CEO's time whose annual salary is Kshs 300,000. The company absorbs overheads based on floor space and it annual total overheads being Kshs 250,000 for a total area of $50m^{2.}$ The warehouse where the new machine will be installed has an area of $10m^2$ but the overheads are expected to remain unchanged even after the installation of the new machine. The machine will have an economic life of five years after which it will have a salvage value of Kshs 700,000. The machine will produce 20000 units in the first year of production and this will decline annually at a rate of 15%. However, for this level of production to continue to the fifth year, an upgrade will be required at the end of year three which is expected cost Kshs 150,000. The per unit cost of production will be Kshs 40 and selling price per unit is expected to be Kshs 100. The company must spend Kshs 50,000 annually on marketing and advertisement to ensure that all the units produced are sold. For the smooth operation of the production runs there will be working capital requirement of Kshs 120,000 annually. The company uses straight line method of depreciation and is subject to corporate tax at the rate of 25%.

Required;

a. Compute initial capital outlay for the project (5marks)

b. Determine the operational cashflow of the project (5marks)

c. Terminal project cash flows (5marks)

d. Net cashflow for the project (5marks)

e. Given that the company uses the hurdle rate of 10% to evaluate its projects, calculate the net present value of this project and advise accordingly (10marks)

QUESTION TWO (20 MARKS)

a) Using relevant examples explain the following terms as used in capital budgeting

i) Independent projects (2 marks)

ii) Mutually exclusive projects (2 marks)

iii) Contingent projects (2 marks)

iv) Soft capital rationing (2 marks)

v) Hard capital rationing (2 marks)

b) Discuss the basic principles of capital budgeting (10 marks)

QUESTION THREE (20 MARKS)

a) Meru clothing co is considering two mutually exclusive projects. The initial cost of both projects is 5,000,000, and each has expected life of five years. Under three possible states of the economy, their annual cash flows and associated probabilities are as follows.

Economic state	probability		Net cashflows	
			Project A	Project B
Good	0.3		6,000,000	5,000,000
Normal	0.4		4,000,000	4,000,000
Bad	0.3		2,000,000	3,000,000

The discount rate is assumed to be 7%.

Required

a) Which of the two projects should be accepted and why (10 marks)

b) Describe the capital budgeting process. (10 marks)

QUESTION FOUR (20 MARKS)

Paramount Systems is evaluating a capital project with the following characteristics:

- The initial outlay is kshs 150,000,000.
- Annual after-tax operating cash flows are sh28, 000,000.
- After tax salvage value at project termination is shs20, 000,000.
- Project life is 10 years.
- The project beta is 1.20. The risk-free rate is 4.2 percent and the expected market return is 9.4 percent.

Required

a) Compute the project NPV. Should the project be accepted? (10 marks)

b) Compute the project IRR Should the project be accepted? (10 marks)

QUESTION FIVE (20MARKS)

a) In finance Risk is the variability of actual return of the company with estimate returns. Discuss the various sources of risk in project management (10marks)

b) Bextech Ltd has a capital budget of 15,000,000 for the year. From the following information relating to six independent project, select the project if;

i. The projects are divisible (5marks)

ii. The project are indivisible (5marks)

Project	Investment	NPU
A	3,000,000	12,000,000
B	1,500,000	500,000
C	3,500,000	1,000,000
D	4,500,000	1,600,000
E	2,000,000	-80,000
F	4,000,000	1,400,000