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BBA in TM, 6th Sem. Date: February 20, 2022 (Morning)

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)

DEPARTMENT OF BUSINESS AND TECHNOLOGY MANAGEMENT

Mid-Semester Examination
Course No. : BTM 4601
Course Title : Financial Management II

Summer Semester, A. Y. 2021-2022
Time : 1.5 hours
Full Marks : 75

Answer **all 3 (three)** questions. All questions carry equal marks. Marks of each question and corresponding CO and PO are written in the right margin with brackets.

1. a) Explain the determinants of market interest rate. 08 (CO1) (PO1)

   b) Describe the similarities and differences between NPV, PI and EVA. 04 (CO1) (PO1)

   c) Discuss how the evaluation and selection of capital projects is affected by mutually exclusive projects, project sequencing, and capital rationing. 05 (CO1) (PO1)

   d) Contrast the NPV decision rule to the IRR decision rule. Explain the relative advantages and disadvantages of the NPV and IRR methods? If a conflict exists, should the capital budgeting decision be made on the basis of the NPV or the IRR ranking? Why? 08 (CO1) (PO1)

2. a) How do the constant-growth valuation model and capital asset pricing model methods for finding the cost of common stock differ? Why is the cost of financing a project with retained earnings less than the cost of financing it with a new issue of common stock? 03 (CO1) (PO1)

   b) Suppose Dexter's risk-free return is 5% and market return is 12%, and Dexter has a beta of 1.2. Estimate Dexter's cost of equity. 03 (CO2) (PO1)

   c) Suppose Dexter, Inc., has preferred stock that pays an $8.50 dividend per share and sells for $100 per share. What is Dexter's cost of preferred stock? 03 (CO2) (PO1)

   d) Suppose Dexter, Inc.'s target capital structure is as follows: weight of debt is 0.45, weight of preferred stock is 0.10, and weight of common equity is 0.45. Its before-tax cost of debt is 7.5%, its cost of equity is 12.5%, its cost of preferred stock is 8.0%, and its marginal tax rate is 40%. Calculate Dexter's WACC. 06 (CO2) (PO1)

   e) Acme, Inc., is considering a project in the pharmaceutical distribution business. It has a D/E ratio of 2, a marginal tax rate of 40%, and its debt currently has a yield of 14%. Beximco, a publicly traded firm that operates only in the pharmaceutical distribution business, has a D/E ratio of 1.5, a marginal tax rate of 30%, and a beta of 0.9. 10 (CO2) (PO1)
   If the risk-free rate is 5%, and the expected return on the market portfolio is 12%. Calculate Beximco's asset beta or unlevered beta, the Acme project's beta, and cost of equity.

3. ABC Company is considering two mutually exclusive projects. The firm, which has a 12% cost of capital, has estimated its cash flows as shown in the following table. 25 (CO2) (PO1)

	Project A	Project B
Initial Investment	(130,000)	(85,000)
Year	**Cash Inflow**	
1	25,000	40,000
2	35,000	35,000
3	45,000	30,000
4	50,000	10,000
5	55,000	5,000

Requirements:

I. Calculate the NPV of each project, and assess its acceptability.
II. Calculate the IRR for each project, and assess its acceptability.
III. Draw the NPV profiles for both projects by considering same set of cost of capital.
IV. Evaluate and discuss the rankings of the two projects on the basis of your findings in parts I, II, and III.
V. Explain your findings in part IV in light of the pattern of cash inflows associated with each project.