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BBA in TM, 2nd Sem. Date: July 01, 2025 (Morning)

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

DEPARTMENT OF BUSINESS AND TECHNOLOGY MANAGEMENT

Mid-Semester Examination		Summer Semester, A. Y. 2023-2024	
Course No.	: BTM 4201	Time	: 2 hours
Course Title	: Financial Management I	Full Marks	: 120

Answer **all 4 (four)** questions. All questions carry equal marks. Marks of each question and the corresponding CO and PO are written in the right margin with brackets.

1. a) Define finance. What are the major differences between accounting and finance with respect to emphasis on cash flows and decision making? 12 (CO1) (PO1)

   b) Describe the goal of a firm, and explain why maximizing the value of a firm is an appropriate goal for a business. 08 (CO1) (PO1)

   c) Who are the key participants in the transactions of financial institutions? Who are net suppliers, and who are net demanders? Show this mechanism through a flow chart. 10 (CO1) (PO1)

2. a) How does the tax treatment of dividend income by the corporation moderate the effects of double taxation? 12 (CO1) (PO1)

   b) Briefly describe the Eurobond market and the international equity market. 08 (CO1) (PO1)

   c) What role do financial markets play in our economy? What are primary and secondary markets? 10 (CO1) (PO1)

3. a) Fran Abrams wishes to determine how much money she will have at the end of 5 years if she chooses either an ordinary annuity, or an annuity due. She will deposit $1,000 annually each year for the next 5 years into a savings account that pays 7% annual interest. Show your calculation by using timeline. 12 (CO2) (PO2)

   b) As part of your financial planning, you wish to purchase a new car exactly 5 years from today. The car you wish to purchase costs $14,000 today, and your research indicates that its price will increase by 3% to 6% per year over the next 5 years. 10 (CO2) (PO2)

   Requirements:

   i. Estimate the price of the car at the end of 5 years if inflation is 3% per year and 6% per year.

   ii. How much more expensive will the car be if the rate of inflation is 6% rather than 3%?

   iii. Estimate the price of the car if the inflation is 3% for the next 3 years and 6% for 2 years after that.

   c) What is the difference between an ordinary annuity and an annuity due? Which is more valuable? Why? 08 (CO1) (PO2)

4. a) Mehadi Hasan borrowed \$15,000 at a 14% annual rate of interest to be repaid over 3 years. The loan is amortized into three equal, annual, end-of-year payments. 12 (CO2) (PO2)

Requirements:

i. Calculate the annual, end-of-year loan payment.

ii. Prepare a loan amortization schedule showing the interest and principal breakdown of each of the three loan payments.

iii. Explain why the interest portion of each payment declines with the passage of time.

b) Melia Markery has \$25,000 that she can deposit in any of three savings accounts for a 3-year period. Bank A compounds interest on an annual basis, Bank B compounds interest twice each year, and Bank C compounds interest each quarter. All three banks have a stated annual interest rate of 5%. 18 (CO2) (PO2)

Requirements:

i. What amount would Ms. Melia have at the end of the third year, leaving all interest paid on deposit, in each bank?

ii. What effective annual rate (EAR) would she earn in each of the banks?

iii. On the basis of your findings in parts i and ii, which bank should Ms. Melia deal with? Why?

iv. If a fourth bank (Bank D), also with a 4% stated interest rate, compounds interest continuously, how much Ms. Melia would have at the end of the third year? Does this alternative change your recommendation in part iii? Explain why or why not.