Bachelor of Arts Examination, 2024

(3rd Year, 1st Semester)

Economics

Paper : ECO/UG/DSE/5.2/1

(Financial Economics-I)

Time : *Two Hours* *Full Marks* : 30

Answer question ***No.*****1** *and* ***any two*** *from the rest.*

The figures in the margin indicate full marks.

1. Justify whether the following statements are true, false or uncertain (***any five***). 2×5=10

(a) A company has the capital of ₹10,00,000; its turnover is 3 times the capital and the margin on sales is 6%. Then the return on investment is 18%.

(b) Current forecasts are for XYZ company to pay dividends of \$3, \$3·24 and \$3·50 over the next three years, respectively. At the end of three years you anticipate selling your stock at a market price of \$94·48. Given a 12% expected return, the price of the stock today is 80\$.

(c) Short call and long put give same pay-offs.

(d) A preferred share gives a same return as a perpetuity.

(e) Profit after tax is obtained by adjusting operating profits with tax liabilities.

(f) The Modigliani-Miller proposition holds even when the assumptions behind the theory are relaxed.

2. *(a)* Suppose you group all the stocks into two mutually exclusive portfolios of growth or value stocks. Suppose the growth stock portfolio and value stock portfolio have equal size in terms of total value. Furthermore, suppose that the expected return of the value stocks is 13% with a volatility of 12%, whereas the expected return of the growth stocks is 17% with a volatility of 25%. The correlation of the returns of these two portfolios is 0·50. The risk-free rate is 2%. What is the expected return and volatility of the market portfolio (which is a 50-50 combination of the two portfolios)? Does CAMP hold in this economy?

(b) Which items feature on the liability side of balance sheet of a company in the account form? Explain briefly.

(c) What is the relation between stock price and earnings per share? 5+2+3=10

3. *(a)* What is optimal capital structure? Does it change across different theoretical models? Explain your answer in the light of net income approach and traditional approach.

(b) Given the following balance sheet :

	Year I		Year II	
	Assets (₹)	**Liabilities (₹)**	**Assets (₹)**	**Liabilities (₹)**
Stock	10,000	–	20,000	–
Debtors	30,000	–	30,000	–
Payment in Advance	2,000	–	–	–
Cash in hand	20,000	–	15,000	–
Sundry Creditors	–	25,000	–	30,000
Acceptances	–	15,000	–	12,000
Bank Overdraft	–	–	–	5,000
	62,000	**40,000**	**65,000**	**47,000**

Sales amounted to ₹3,50,000 in the first year and ₹3,00,000 in the second year.

Calculate the Current Ratio, Debt Equity Ratio and Inventory Turnover Ratio of the company and compare for both the years. 4+6=10

4. *(a)* "Futures and options are similar instruments for speculators". Do you agree? Give suitable examples to explain your answer.

(b) Consider a long forward contract to purchase a non-dividend-paying stock in 3 months. Assume the current stock price is \$40 and the 3-month risk-free interest rate is 5% per annum. What are the possible arbitrage opportunities if the forward price is *(i)* 39\$ and *(ii)* 43\$? In this context comment on the fair price of a forward contract on a non-dividend paying stock. 5+5=10

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