

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI 600086
(For candidates admitted during the academic year 2023-2024)

B.COM. END SEMESTER EXAMINATION-APRIL 2026
HONOURS
SIXTH SEMESTER

COURSE : MAJOR CORE
PAPER : INVESTMENT ANALYSIS AND APPRAISAL
SUBJECT CODE : 23BH/MC/IA64
TIME : 3 HOURS **MAX. MARKS: 100**

SECTION A																						
Q. No.	Answer all the questions:	(5 x 2 = 10)	CO	KL																		
1.	What is Intrinsic Value?		CO1	K1																		
2.	Two companies have the same earnings, but one has a higher P/E ratio. What does it indicate?		CO1	K1																		
3.	Sylvia Ltd invested ₹80,000 in two shares. 40% is invested in A Ltd with expected return 18% and the balance in B Ltd with expected return 15%. Calculate the expected return of the portfolio.		CO1	K1																		
4.	A company is appraising a three-year project that requires an initial outlay on 1 January 2024 of \$30,000. The project is expected to give the following cash inflows on 31 December of each year: <table border="1" style="margin: 10px auto; width: 60%;"> <thead> <tr> <th style="text-align: center;">Year</th> <th style="text-align: center;">\$000</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">2024</td> <td style="text-align: center;">10</td> </tr> <tr> <td style="text-align: center;">2025</td> <td style="text-align: center;">20</td> </tr> <tr> <td style="text-align: center;">2026</td> <td style="text-align: center;">25</td> </tr> </tbody> </table> All of the above cash flows are before considering inflation of 5% per year. The cost of capital is 14% in nominal (money) terms. Calculate the NPV of the project on 1 January 2024, using the nominal approach.	Year	\$000	2024	10	2025	20	2026	25		CO1	K1										
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2024	10																					
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5.	Write a short note on Yield Curve.		CO1	K1																		
SECTION B																						
Q. No.	Answer any four of the following questions:	(4 x 5 = 20)	CO	KL																		
6.	Explain Porter's Five Forces Model.		CO1	K2																		
7.	The following information is available for five securities: <table border="1" style="margin: 10px auto; width: 60%;"> <thead> <tr> <th style="text-align: center;">Security</th> <th style="text-align: center;">Risk</th> <th style="text-align: center;">Return</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">A</td> <td style="text-align: center;">16%</td> <td style="text-align: center;">14%</td> </tr> <tr> <td style="text-align: center;">B</td> <td style="text-align: center;">15%</td> <td style="text-align: center;">18%</td> </tr> <tr> <td style="text-align: center;">C</td> <td style="text-align: center;">18%</td> <td style="text-align: center;">20%</td> </tr> <tr> <td style="text-align: center;">D</td> <td style="text-align: center;">15%</td> <td style="text-align: center;">20%</td> </tr> <tr> <td style="text-align: center;">E</td> <td style="text-align: center;">20%</td> <td style="text-align: center;">22%</td> </tr> </tbody> </table> Calculate coefficient of variation of these securities.	Security	Risk	Return	A	16%	14%	B	15%	18%	C	18%	20%	D	15%	20%	E	20%	22%		CO1	K2
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8.	Answer the following questions: a) What are three commonly used multiples in relative valuation. (3 marks) b) List the steps involved in relative valuation techniques. (2 marks)	CO1	K2																				
9.	Briefly explain the concept of Dow Theory and state the assumptions of Dow Theory.	CO1	K2																				
10.	Consider the following details related to four projects. <table border="1" style="margin-left: 20px;"> <tr> <td>Projects</td> <td>A</td> <td>B</td> <td>C</td> <td>D</td> </tr> <tr> <td></td> <td>\$000</td> <td>\$000</td> <td>\$000</td> <td>\$000</td> </tr> <tr> <td>NPV</td> <td>100</td> <td>-50</td> <td>84</td> <td>45</td> </tr> <tr> <td>Cash Flow at T0</td> <td>-50</td> <td>-10</td> <td>-10</td> <td>-15</td> </tr> </table> <p><i>Additional information:</i></p> <ul style="list-style-type: none"> • Cash is rationed to \$50,000 at T0 • The projects are divisible, but projects C and D are mutually exclusive. <p>Mention if capital rationing exists or not and determine the optimal investment plan.</p>	Projects	A	B	C	D		\$000	\$000	\$000	\$000	NPV	100	-50	84	45	Cash Flow at T0	-50	-10	-10	-15	CO1	K2
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11.	Bring out the differences between Systematic and Unsystematic Risks.	CO1	K2																				
SECTION C																							
Q. No.	Answer all the questions: (4 x 10 = 40)	CO	KL																				
12.	A) Examine how the major macroeconomic variables influence the movement of Indian stock prices. (or) B) Answer the following questions: i) “Relative valuation reflects market sentiment rather than intrinsic value.” - Discuss. (5 marks) ii) Explain how incorrect selection of comparable companies can distort valuation under the Relative Valuation Technique. (5 marks)	CO2	K3																				
13.	A) Discuss in detail ‘Yield to Maturity’. (or) B) Distinguish between Technical Analysis and Fundamental Analysis.	CO2	K3																				
14.	A) The following is a security’s expected performance under three economic conditions: <table border="1" style="margin-left: 20px;"> <tr> <td>Condition</td> <td>Return</td> <td>Probability</td> </tr> <tr> <td>Boom</td> <td>20%</td> <td>0.3</td> </tr> <tr> <td>Normal</td> <td>15%</td> <td>0.5</td> </tr> <tr> <td>Recession</td> <td>8%</td> <td>0.2</td> </tr> </table> <p>Calculate the expected Risk and Return of the security. (or)</p>	Condition	Return	Probability	Boom	20%	0.3	Normal	15%	0.5	Recession	8%	0.2	CO3	K4								
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	<p>B) An investor is interested in constructing a portfolio of two investments S1 and S2. The information gathered about these two investments are as follows:</p> <ul style="list-style-type: none"> • The expected return of S1 is 18% and S2 is 15% • The standard deviations of the returns are 15% for S1 and 12% for S2 • The correlation coefficient of the portfolio is 0.15 • The weights allocation for both the investments to construct a portfolio are as follows: <ul style="list-style-type: none"> i) 60% of funds are invested in S1 and 40% in S2 ii) Equal allocation of funds to both the investments iii) 20% funds in S1 and 80% funds in S2 iv) All funds are invested in S1 <p>Calculate expected return and risk under each portfolio.</p>																											
15.	<p>A) The directors of Pelta Co. are considering a planned investment project costing \$25m, payable at the start of the first year of operation. The following information relates to the investment project:</p> <table border="1" data-bbox="279 913 1241 1133"> <thead> <tr> <th>Particulars</th> <th>Year 1</th> <th>Year 2</th> <th>Year 3</th> <th>Year 4</th> </tr> </thead> <tbody> <tr> <td>Sales volume (units/year)</td> <td>520000</td> <td>624000</td> <td>717000</td> <td>788000</td> </tr> <tr> <td>Selling price (\$/unit)</td> <td>30.00</td> <td>30.00</td> <td>30.00</td> <td>30.00</td> </tr> <tr> <td>Variable cost (\$/unit)</td> <td>10.00</td> <td>10.20</td> <td>10.61</td> <td>10.93</td> </tr> <tr> <td>Fixed costs (\$/year)</td> <td>700000</td> <td>735000</td> <td>779000</td> <td>841000</td> </tr> </tbody> </table> <p>The above information needs some adjustment to consider selling price inflation of 4% per year and variable cost inflation of 3% per year. The fixed costs, which are incremental and relate to the investment project, are in nominal terms. Year 4 sales volume is expected to continue for the foreseeable future. Pelta Co. pays corporation tax of 30% one year in arrears. The company can claim tax allowable depreciation on a 25% reducing balance basis. The views of the directors of Pelta Co. are that all investment projects must be evaluated over four years of operations, with an assumed terminal value at the end of fourth year of 5% of the initial investment. The real post-tax cost of capital is 7% and the nominal (money) post-tax cost of capital is 12%. Calculate the NPV of the planned investment project.</p> <p style="text-align: center;">(or)</p> <p>B) Umunat Co is considering investing \$50,000 in a new machine with an expected life of five years. The machine will have no scrap value at the end of five years. It is expected that 20,000 units will be sold each year at a selling price of \$3.00 per unit. Variable production costs are expected to be \$1.65 per unit, while incremental fixed cost, mainly the wages of a maintenance engineer, are expected to be \$10,000 per year. Umunat uses a discount rate of 12% for investment appraisal purposes and expects investments projects to recover their initial investment within two years. Discuss the use of sensitivity analysis as a way of evaluating this project's risk.</p>	Particulars	Year 1	Year 2	Year 3	Year 4	Sales volume (units/year)	520000	624000	717000	788000	Selling price (\$/unit)	30.00	30.00	30.00	30.00	Variable cost (\$/unit)	10.00	10.20	10.61	10.93	Fixed costs (\$/year)	700000	735000	779000	841000	CO3	K4
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SECTION D				
Q. No.	Answer any one of the following questions:	(1 x 15 = 15)	CO	KL
16.	A company is valued using the Relative Valuation Technique based on industry average P/E ratio. The industry is currently experiencing a speculative boom, and most companies appear overvalued. The company being valued also has lower growth prospects and higher debt compared to its peers. Critically examine whether the valuation derived would reflect the true value of the company. Suggest how the limitations of relative valuation can be addressed.		CO4	K5
17.	Explain sensitivity analysis and critically assess the steps involved in sensitivity analysis and its advantages and limitations.			
SECTION E				
Q. No.	Compulsory Case Study	(1x 15 = 15)	CO	KL
18.	<p>A large investment firm is analysing the movement of government bond yield curves over the past year. Recently, the firm observed that the yield curve shifted from a normal upward-sloping curve to a flat curve and is now showing signs of inversion. The research team believes that the change in yield curve shape may indicate future economic slowdown and changes in interest rate expectations.</p> <p>The portfolio manager is considering three alternative strategies:</p> <ul style="list-style-type: none"> • Increasing investment in long-term bonds • Shifting towards short-term securities • Maintaining a balanced maturity portfolio <p>The management is also debating which theory of the term structure (Expectations Theory, Liquidity Preference Theory, and Market Segmentation Theory) best explains the current yield curve behaviour.</p> <p>a) Appraise the implications of different yield curve shapes for investment and economic forecasting. (4 marks)</p> <p>b) Assess the relevance of Expectations Theory, Liquidity Preference Theory and Market Segmentation Theory in explaining the observed changes in the yield curve. (6 marks)</p> <p>c) Recommend the most appropriate investment strategy for the firm based on the current yield curve trend, with justification. (5 marks)</p>		CO5	K6
