VPM's
DR VN BRIMS, Thane
Programme: MMS (2022-24)
Third Semester Regular Examination January - February 2024

Course Name:	Security Analysis & Portfolio Management	**Course Code**	F306
Roll No.		**Marks**	**60**
Total No. of Questions	6	**Duration**	**3 Hours**
Total No. of printed pages	3	**Date**	02.02.2024

Course Outcome Statements:
CO1: RECALL basic terminologies in relation to Security Analysis and Portfolio Management
CO2: EXPLAIN the concepts & formulas pertaining to Security Analysis and Portfolio Management
CO3: MAKE USE OF formulas and frameworks related to securities risk and return analysis, capital market theories, portfolio theory, investment decision theory, indexing and benchmarking, technical analysis and fixed income security analysis
CO4: EXAMINE the various types of financial results with respect to risk and return, CAPM, Sharpe ratio, Treynor ratio, Jensen's Alpha, M-squared, technical analysis, Mutual Fund performances pricing of bonds, for making relevant inferences
CO5: ASSESS financial information related to security analysis for investment decision making

Instructions: -

Q. No 1 (All Questions are Compulsory)

Q. No.		Questions	Marks	BL	CO
Q. 1		Case/Case-let Study (500-800 words)			
	a.	Founded during the early 1970s, British Investment Association (BIA) has been hosting annual investor awareness conclaves for more than 50 years now. This year, Mr. Scott Parker, one of the renowned portfolio managers in the West London was invited as a chief guest for the event. During the event, an attendee, Mr. Alan Shearer asks him to **Inspect** the stock returns of 'Chevron Ltd.' and 'Valero Ltd.' and draw inferences related to Average Return, Total Risk and Coefficient of Variation. Mr. Parker asks his assistant Mr. Gary to handle the query from Mr. Shearer. Mr. Shearer hands Gary a chit of paper where he has the following information:	**6**	**Level 4**	**CO4**
	b.	As the event goes further another attendee Ms. Roy Howard, requests him to **Compare** 3 portfolios and advice the best suitable portfolio for her. Hailing from a working-class family, Ms. Howard is confused about a full-time career but has recently joined as a Junior Associate in a private law firm. She is currently not married and has to take care of her dad who is financially dependent on her due to his age. After deducting the rentals of her living apartment and other living expenses, she's only able to save a small amount every	**6**	**Level 5**	**CO5**

Economic Condition	**Probability**	**Returns from Chevron (%)**	**Returns from Valero (%)**
Good	0.4	30%	16%
Neutral	0.4	8%	6%
Bad	0.2	-4%	2%

month. She likes to experiment with her investments and describes her as a 'Risk Taker'.

Asset Class	Portfolio 1	Portfolio 2	Portfolio 3
Hedge Fund	-	40%	10%
Direct Equity	20%	40%	60%
Bonds	60%	10%	30%
Cash and Equivalent	10%	5%	-
Insurance	10%	5%	-

Q. 2		Answer **Any one** from the following.			
	a.	**Recommend** a Buy/Sell advice based on the value of each technical indicator separately with a brief justification: **Indicator** / **Value/Observation** RSI: 29 MACD: MACD Line Cuts Signal Line and Goes Above Aroon Up and Down: Aroon Down is above Aroon Up Parabolic SAR: The Dots are appearing above the line Bollinger Band: The Price keeps touching the upper band. Support and Resistance: The price has broken the resistance	**6**	**Level 5**	**CO5**
	b.	**Decide** which of the following 2 portfolios will have higher portfolio risk: Portfolio A SD1 = 11% and SD2 = 6%, correlation coefficient = 0.8, W1 =0.4, W2=0.6 Portfolio B SD1= 12% and SD2 = 10%, Correlation coefficient = - 0.5, W1=0.8, W2=0.2	**6**	**Level 5**	**CO5**
Q. 3		Answer **Any one** from the following.			
	a.	**Examine** which security is better using Sharpe ratio, Treynor ratio & M-squared measure (Only Compare HUL & Infosys) **HUL** / **Infosys** / **Nifty** E(R): 18% / 15% / 14% SD: 8% / 6% / 4% Beta: 1.2 / 0.8 / 1 Rf: 6%	**6**	**Level 4**	**CO4**
	b.	**Analyse** which of the following securities are overvalued and undervalued by constructing SML: **Security** / **Beta** / **Average Return** A: 0.5 / 10 % B: 1.5 / 14 % C: 1.2 / 8 % D: 2 / 16 % Sensex (Market Portfolio): 1 / 12 % Assume Rf = 6%	**6**	**Level 4**	**CO4**

<table>
<tr><td>Q. 4</td><td></td><td>Answer Any two from the following.</td><td></td><td></td><td></td></tr>
<tr><td></td><td>a.</td><td>Calculate ‘Free Float Market Cap’ weighted Index and ‘Price’ Weighted Index based on the following data:
<table>
<tr><th>Security</th><th>No. of Instruments</th><th>Price (Rs.)</th><th>Promoter Holding</th></tr>
<tr><td>A</td><td>20</td><td>2,000</td><td>60%</td></tr>
<tr><td>B</td><td>50</td><td>250</td><td>75%</td></tr>
<tr><td>C</td><td>15</td><td>580</td><td>40%</td></tr>
<tr><td>D</td><td>30</td><td>1,150</td><td>55%</td></tr>
</table></td><td>6</td><td>Level 3</td><td>CO3</td></tr>
<tr><td></td><td>b.</td><td>Solve the following 2 questions:
i) Mr. Alex Hales purchased a share of Microsoft Inc. at Rs.55.30 and held it for 4 months, during these 4 months he received a total dividend of Rs.5.5 and then he sold the shares at Rs.62.20. Find HPR and BEY.
ii) If a stock has CAPM return as 15.5% and the Risk-free return is 5%, Return from Market is 10.5%. Variance of Market is 60, what would be the covariance between stock and market.</td><td>6</td><td>Level 3</td><td>CO3</td></tr>
<tr><td></td><td>c.</td><td>Calculate Macaulay's Duration and Modified Duration of a bond with a face value of Rs.2,000, Yield =10% p.a., maturity=4 years & coupon rate = 12% p.a.</td><td>6</td><td>Level 3</td><td>CO3</td></tr>
<tr><td>Q. 5</td><td></td><td>Answer Any two from the following.</td><td></td><td></td><td></td></tr>
<tr><td></td><td>a.</td><td>Explain the concept of Multi-Factor Models with details related Fama & French 5 Factor Model</td><td>6</td><td>Level 2</td><td>CO2</td></tr>
<tr><td></td><td>b.</td><td>Describe the following terms: i) Hybrid Mutual Funds and ii) Relative valuation of equity shares</td><td>6</td><td>Level 2</td><td>CO2</td></tr>
<tr><td></td><td>c.</td><td>Summarize the difference between Systematic Risk and Unsystematic Risk</td><td>6</td><td>Level 2</td><td>CO2</td></tr>
<tr><td>Q. 6</td><td></td><td>Answer Any two from the following.</td><td></td><td></td><td></td></tr>
<tr><td></td><td>a.</td><td>Recall various types of Bonds</td><td>6</td><td>Level 1</td><td>CO1</td></tr>
<tr><td></td><td>b.</td><td>What is Head and Shoulder Pattern?</td><td>6</td><td>Level 1</td><td>CO1</td></tr>
<tr><td></td><td>c.</td><td>What is Efficient Market Hypothesis?</td><td>6</td><td>Level 1</td><td>CO1</td></tr>
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