

CBCS SCHEME

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22MBAFM304



Third Semester MBA Degree Examination, June/July 2025

Security Analysis and Portfolio Management

Max. Marks: 100

- Note: 1. Answer any FOUR full questions from Q1 to Q7.
 2. Question No.8 is compulsory.
 3. M : Marks , L: Bloom's level , C: Course outcomes.
 4. Use of PV tables permitted.*

			M	L	CO																			
Q.1	a.	Differentiate investment from speculation.	03	L2	CO1																			
	b.	Explain the forms of market hypothesis and the different tests of market efficiency.	07	L2	CO3																			
	c.	Stock M and N have yielded the following returns for the past two years. <table border="1" style="margin: 10px auto; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Years</th> <th colspan="2">Returns %</th> </tr> <tr> <th>M</th> <th>N</th> </tr> </thead> <tbody> <tr> <td>2022</td> <td style="text-align: center;">12</td> <td style="text-align: center;">14</td> </tr> <tr> <td>2023</td> <td style="text-align: center;">18</td> <td style="text-align: center;">12</td> </tr> </tbody> </table> Evaluate the portfolio made up of 60% of M and 40% of N in terms of its risk and return.	Years	Returns %		M	N	2022	12	14	2023	18	12	10	L5	CO2								
Years	Returns %																							
	M	N																						
2022	12	14																						
2023	18	12																						
Q.2	a.	The equity stock of Raj Ltd is currently selling for Rs. 30 per share. The dividend expected next year is Rs. 2. The investor's required rate of return on this stock is 15%. If the constant growth model applies to Raj Ltd., what is the expected growth rate?	03	L3	CO2																			
	b.	Describe the investment process in detail.	07	L2	CO1																			
	c.	Consider the following information for three mutual funds A, B and C and the market. <table border="1" style="margin: 10px auto; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Mean return %</th> <th>Standard deviation %</th> <th>Beta</th> </tr> </thead> <tbody> <tr> <td>A</td> <td style="text-align: center;">12</td> <td style="text-align: center;">18</td> <td style="text-align: center;">1.1</td> </tr> <tr> <td>B</td> <td style="text-align: center;">10</td> <td style="text-align: center;">15</td> <td style="text-align: center;">0.9</td> </tr> <tr> <td>C</td> <td style="text-align: center;">13</td> <td style="text-align: center;">20</td> <td style="text-align: center;">1.2</td> </tr> <tr> <td>Market</td> <td style="text-align: center;">11</td> <td style="text-align: center;">17</td> <td style="text-align: center;">1.0</td> </tr> </tbody> </table> The mean risk free rate was 6 percent. Calculate the Treynox Measure, Sharpe measure and Jenson measure for the three mutual funds and the market index.		Mean return %	Standard deviation %	Beta	A	12	18	1.1	B	10	15	0.9	C	13	20	1.2	Market	11	17	1.0	10	L3
	Mean return %	Standard deviation %	Beta																					
A	12	18	1.1																					
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Q.3	a.	Explain efficient frontier.	03	L2	CO4														
	b.	Briefly explain the differences between fundamental and technical analysis.	07	L2	CO3														
	c.	The Evergreen investment company manages a stock fund consisting of four stocks with the following market values and betas. <table border="1" style="margin: 10px auto; border-collapse: collapse;"> <thead> <tr> <th>Stock</th> <th>Market value</th> <th>Beta</th> </tr> </thead> <tbody> <tr> <td>Bell</td> <td style="text-align: center;">2,00,000</td> <td style="text-align: center;">1.16</td> </tr> <tr> <td>Sell</td> <td style="text-align: center;">1,00,000</td> <td style="text-align: center;">1.20</td> </tr> <tr> <td>Grill</td> <td style="text-align: center;">1,50,000</td> <td style="text-align: center;">0.80</td> </tr> <tr> <td>Shrill</td> <td style="text-align: center;">50,000</td> <td style="text-align: center;">0.50</td> </tr> </tbody> </table> If the risk free rate of return is 9% and the market return is 15%, what is the portfolio's expected return?	Stock	Market value	Beta	Bell	2,00,000	1.16	Sell	1,00,000	1.20	Grill	1,50,000	0.80	Shrill	50,000	0.50	10	L4
Stock	Market value	Beta																	
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Grill	1,50,000	0.80																	
Shrill	50,000	0.50																	
Q.4	a.	Explain breadth of market.	03	L2	CO3														
	b.	The market price of a Rs. 1000 par value bond carrying a coupon rate of 14% and maturity after 5 years is Rs. 1050. What is the approximate YTM of this band? What will be the realized yield to maturity if the reinvestment rate is 12%?	07	L3	CO2														
	c.	Pioneer Ltd's earnings and dividend have been growing at a rate of 18% per annum. The growth rate is expected to continue for 4 years. After that the growth rate will fall to 12% for the next 4 years. Thereafter the growth rate is expected to be 6% forever. If the last dividend per share was Rs. 2.00 and the investors expected rate of return on equity is 15%. Determine the intrinsic value of share.	10	L5	CO2														
Q.5	a.	Differentiate money market and capital market.	03	L2	CO1														
	b.	Describe briefly the important investment avenues available to investors in India.	07	L2	CO1														
	c.	The following information is available. <table border="1" style="margin: 10px auto; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Stock A</th> <th>Stock B</th> </tr> </thead> <tbody> <tr> <td>Expected return</td> <td style="text-align: center;">16%</td> <td style="text-align: center;">12%</td> </tr> <tr> <td>Standard deviation</td> <td style="text-align: center;">15%</td> <td style="text-align: center;">8%</td> </tr> <tr> <td>Coefficient of correlation</td> <td colspan="2" style="text-align: center;">0.60</td> </tr> </tbody> </table> i) What is the covariance between stock A and B? ii) What is the expected risk and return of a portfolio in which A and B have weight of 0.6 and 0.4.		Stock A	Stock B	Expected return	16%	12%	Standard deviation	15%	8%	Coefficient of correlation	0.60		10	L3	CO2		
	Stock A	Stock B																	
Expected return	16%	12%																	
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Q.6	a.	Explain Japanese Candlestick.	03	L2	CO3																				
	b.	Explain mutual funds. Discuss the advantages of mutual funds.	07	L2	CO4																				
	c.	The following table gives data for four stocks. <table border="1" data-bbox="302 493 1092 674"> <thead> <tr> <th>Stock</th> <th>Alpha</th> <th>Systematic risk</th> <th>Unsystematic risk</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>-0.6</td> <td>5</td> <td>4</td> </tr> <tr> <td>B</td> <td>0.10</td> <td>2</td> <td>6</td> </tr> <tr> <td>C</td> <td>0.00</td> <td>3</td> <td>1</td> </tr> <tr> <td>D</td> <td>-0.14</td> <td>3</td> <td>2</td> </tr> </tbody> </table> <p>The market is expected to have a 12% return over a period with a variance of 6%. Calculate the expected return for a portfolio consisting of equal portions of stock A, B, C and D.</p>	Stock	Alpha	Systematic risk	Unsystematic risk	A	-0.6	5	4	B	0.10	2	6	C	0.00	3	1	D	-0.14	3	2	10	L4	CO4
Stock	Alpha	Systematic risk	Unsystematic risk																						
A	-0.6	5	4																						
B	0.10	2	6																						
C	0.00	3	1																						
D	-0.14	3	2																						
Q.7	a.	A's Ltd currently pays a dividend of Rs. 15 per share. The required rate of return is 18%. Calculate the value of share.	03	L3	CO2																				
	b.	Stock X and Y have the following parameters. <table border="1" data-bbox="510 1056 893 1203"> <thead> <tr> <th></th> <th>X</th> <th>Y</th> </tr> </thead> <tbody> <tr> <td>Return</td> <td>20</td> <td>30</td> </tr> <tr> <td>Risk (variance)</td> <td>16</td> <td>25</td> </tr> <tr> <td>Covariance XY</td> <td>20</td> <td></td> </tr> </tbody> </table> <p>Is there any advantage of holding a combination of X and Y?</p>		X	Y	Return	20	30	Risk (variance)	16	25	Covariance XY	20		07	L5	CO4								
	X	Y																							
Return	20	30																							
Risk (variance)	16	25																							
Covariance XY	20																								
	c.	Elaborate portfolio revision strategies.	10	L2	CO4																				
Q.8		<p>CASE STUDY : Compulsory</p> <p>The returns of two assets under four possible states of nature are given below :</p> <table border="1" data-bbox="255 1549 1151 1766"> <thead> <tr> <th>State of nature</th> <th>Probability</th> <th>Return on Asset 1 in %</th> <th>Return on Asset 2 in %</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>0.10</td> <td>5</td> <td>0</td> </tr> <tr> <td>2</td> <td>0.30</td> <td>10</td> <td>8</td> </tr> <tr> <td>3</td> <td>0.50</td> <td>15</td> <td>18</td> </tr> <tr> <td>4</td> <td>0.10</td> <td>20</td> <td>26</td> </tr> </tbody> </table> <p>i) Determine the expected return on Asset 1 and 2</p> <p>ii) Estimate the standard deviation of the returns on Asset 1 and 2</p> <p>iii) Evaluate a portfolio with a combination of Asset 1 and 2 in terms of return and risk. The portfolio is constructed with a weight of 60% is Asset 1 and 40% in Asset 2.</p>	State of nature	Probability	Return on Asset 1 in %	Return on Asset 2 in %	1	0.10	5	0	2	0.30	10	8	3	0.50	15	18	4	0.10	20	26	5 5 10	L5 L5 L5	CO2 CO2 CO2
State of nature	Probability	Return on Asset 1 in %	Return on Asset 2 in %																						
1	0.10	5	0																						
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