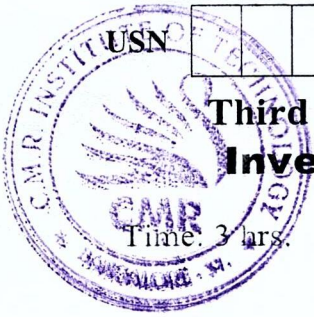


# CBCS SCHEME

MBAFM314



**Third Semester MBA Degree Examination, Dec.2025/Jan.2026**  
**Investment Analysis and Portfolio Management**

Max. Marks: 100

- Note: 1. Answer any FOUR full questions from Q.No.1 to Q.No.7.  
 2. Question No. 8 is compulsory.  
 3. M : Marks , L: Bloom's level , C: Course outcomes.  
 4. PV Table is allowed.*

			M	L	C																										
Q.1	a.	List the features of a good investment.	3	L2	CO1																										
	b.	Explain the functions of stock exchanges.	7	L2	CO1																										
	c.	Examine the process of investment.	10	L2	CO1																										
Q.2	a.	Explain S&P BSE SENSEX.	3	L2	CO1																										
	b.	Examine the salient features of Elliot wave theory.	7	L2	CO1																										
	c.	Briefly explain the types of chart patterns for stock traders.	10	L2	CO1																										
Q.3	a.	What is risk averse?	3	L2	CO1																										
	b.	The ABC and XYZ corporations have the following expected risk and return inputs for the next year : <table border="1" style="margin: 10px auto; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">ABC</th> <th style="text-align: center;">XYZ</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Return</td> <td style="text-align: center;">20%</td> <td style="text-align: center;">23%</td> </tr> <tr> <td style="text-align: center;">Σ</td> <td style="text-align: center;">21%</td> <td style="text-align: center;">25%</td> </tr> <tr> <td style="text-align: center;">R</td> <td colspan="2" style="text-align: center;">0.4</td> </tr> </tbody> </table> i) Find out the portfolio risk. If 50% of funds is allocated for each stock. ii) Determine the correlation coefficient that be the necessary to reduce the level of portfolio risk by 25%.		ABC	XYZ	Return	20%	23%	Σ	21%	25%	R	0.4		7	L5	CO2														
	ABC	XYZ																													
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c.	The return and probability associated with 3 stocks are given below: <table border="1" style="margin: 10px auto; border-collapse: collapse;"> <thead> <tr> <th rowspan="2" style="text-align: center;">Probability</th> <th colspan="3" style="text-align: center;">Returns (in %)</th> </tr> <tr> <th style="text-align: center;">Stock X</th> <th style="text-align: center;">Stock Y</th> <th style="text-align: center;">Stock Z</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">0.3</td> <td style="text-align: center;">9</td> <td style="text-align: center;">4</td> <td style="text-align: center;">6</td> </tr> <tr> <td style="text-align: center;">0.5</td> <td style="text-align: center;">15</td> <td style="text-align: center;">12</td> <td style="text-align: center;">10</td> </tr> <tr> <td style="text-align: center;">0.2</td> <td style="text-align: center;">18</td> <td style="text-align: center;">15</td> <td style="text-align: center;">14</td> </tr> </tbody> </table> Find out: a) Expected return and risk of individual securities. b) Expected return and risk of portfolio if the proportion of investment in each of the securities are: <table border="1" style="margin: 10px auto; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Security</th> <th style="text-align: center;">X</th> <th style="text-align: center;">Y</th> <th style="text-align: center;">Z</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Proportion of Investment</td> <td style="text-align: center;">30%</td> <td style="text-align: center;">45%</td> <td style="text-align: center;">25%</td> </tr> </tbody> </table>	Probability	Returns (in %)			Stock X	Stock Y	Stock Z	0.3	9	4	6	0.5	15	12	10	0.2	18	15	14	Security	X	Y	Z	Proportion of Investment	30%	45%	25%	10	L5	CO2
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Q.4	a.	A preference share is selling at Rs. 44 per share, and pays a dividend of Rs. 4.4 per share. If the required rate is 12%, what is the value of the preference share?	3	L5	CO4																							
	b.	The equity share of a company offers a current dividend of Rs. 4 per share. The rate of dividend is expected to grow at 6% for the first five years and at 8% thereafter. The rate of return required for an investor is 15%. Find the intrinsic value of the equity share.	7	L5	CO4																							
	c.	Vikram purchased at par a bond with a face value of Rs. 1000/- The bond had five years to maturity and a 10 percent coupon rate. The bond was called two years later for a price of Rs. 1,200, after making its second annual interest payment. Vikram then reinvested the proceeds in a bond selling at its face value of Rs. 1000/- with three years to maturity and a 7 % coupon rate. What was Vikram actual YTM over the five year period?	10	L5	CO4																							
Q.5	a.	What is Markowitz efficient frontier?	3	L2	CO1																							
	b.	The following table gives an analyst's expected return on 2 stocks for particular market returns <table border="1" data-bbox="272 1032 1174 1160"> <thead> <tr> <th>Market Return</th> <th>Aggressive Stock</th> <th>Defensive Stock</th> </tr> </thead> <tbody> <tr> <td>6%</td> <td>2%</td> <td>8%</td> </tr> <tr> <td>20</td> <td>30</td> <td>16</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>i) What are the Beta's of the 2 stocks?</li> <li>ii) What is the expected return on each stock; if the market return is equally likely to be 6% or 20%?</li> <li>iii) If the risk free rate is 7% and the market return is equally likely to be 6% or 20%. What is the SML?</li> <li>iv) What are the alphas of the 2 stocks?</li> </ul>	Market Return	Aggressive Stock	Defensive Stock	6%	2%	8%	20	30	16	7	L4	CO3														
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c.	Following information is available in respect of securities and the market : <table border="1" data-bbox="507 1447 1034 1756"> <thead> <tr> <th>Security</th> <th>Expected return(%)</th> <th>Beta</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>22.20</td> <td>1.75</td> </tr> <tr> <td>B</td> <td>15.80</td> <td>1.90</td> </tr> <tr> <td>C</td> <td>18.00</td> <td>1.10</td> </tr> <tr> <td>D</td> <td>9.00</td> <td>0.95</td> </tr> <tr> <td>E</td> <td>25.80</td> <td>2.00</td> </tr> <tr> <td>T-Bill</td> <td>8.00</td> <td>-</td> </tr> <tr> <td>Sensex</td> <td>15.00</td> <td>1.00</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>i) Which of the securities are underpriced or overpriced in terms of security market line?</li> <li>ii) What expected returns an investor would have if the investor forms an equally weighted portfolio of all the risky securities from A to E?</li> <li>iii) Calculate the implied beta for the investor on such a portfolio.</li> </ul>	Security	Expected return(%)	Beta	A	22.20	1.75	B	15.80	1.90	C	18.00	1.10	D	9.00	0.95	E	25.80	2.00	T-Bill	8.00	-	Sensex	15.00	1.00	10	L4	CO3
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Q.6	a.	What is portfolio revision?	3	L2	CO1																							

	<p>b. The XYZ Company manages a stock fund consisting of four stocks with the followings :</p> <table border="1" data-bbox="517 322 1010 501"> <thead> <tr> <th>Stock</th> <th>Market Value</th> <th>Beta</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>2,00,000</td> <td>1.16</td> </tr> <tr> <td>B</td> <td>1,00,000</td> <td>1.20</td> </tr> <tr> <td>C</td> <td>1,50,000</td> <td>0.80</td> </tr> <tr> <td>D</td> <td>50,000</td> <td>0.50</td> </tr> </tbody> </table> <p>If <math>R_f</math> is 9% and the market return is 15%, what is the portfolio expected return?</p>	Stock	Market Value	Beta	A	2,00,000	1.16	B	1,00,000	1.20	C	1,50,000	0.80	D	50,000	0.50	7	L5	CO4									
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	<p>c. Arun buys a bond with four years to maturity. The bond has a coupon rate of 9% and is priced Rs. 100 in the market.</p> <p>i) What is the duration of the bond?</p> <p>ii) What will be the percentage change in the price of the bond if the interest rate rises to 10%.</p>	10	L5	CO2																								
Q.7	<p>a. List the factors considered in industry analysis.</p>	3	L2	CO3																								
	<p>b. From the following data calculate moving average :</p> <table border="1" data-bbox="592 1021 938 1480"> <thead> <tr> <th>Day</th> <th>Closing Price</th> </tr> </thead> <tbody> <tr><td>1</td><td>22</td></tr> <tr><td>2</td><td>25</td></tr> <tr><td>3</td><td>26</td></tr> <tr><td>4</td><td>24</td></tr> <tr><td>5</td><td>28.5</td></tr> <tr><td>6</td><td>29</td></tr> <tr><td>7</td><td>28</td></tr> <tr><td>8</td><td>26.5</td></tr> <tr><td>9</td><td>27.5</td></tr> <tr><td>10</td><td>25</td></tr> <tr><td>11</td><td>23.5</td></tr> </tbody> </table>	Day	Closing Price	1	22	2	25	3	26	4	24	5	28.5	6	29	7	28	8	26.5	9	27.5	10	25	11	23.5	7	L4	CO3
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	<p>c. From the following information calculate RSI :</p> <table border="1" data-bbox="612 1608 922 2029"> <thead> <tr> <th>Date</th> <th>Price</th> </tr> </thead> <tbody> <tr><td>Feb 4<sup>th</sup></td><td>300</td></tr> <tr><td>Feb 6<sup>th</sup></td><td>304</td></tr> <tr><td>Feb 7<sup>th</sup></td><td>319</td></tr> <tr><td>Feb 8<sup>th</sup></td><td>317</td></tr> <tr><td>Feb 11<sup>th</sup></td><td>319</td></tr> <tr><td>Feb 12<sup>th</sup></td><td>333</td></tr> <tr><td>Feb 13<sup>th</sup></td><td>331</td></tr> <tr><td>Feb 14<sup>th</sup></td><td>332</td></tr> <tr><td>Feb 18<sup>th</sup></td><td>348</td></tr> <tr><td>Feb 19<sup>th</sup></td><td>346</td></tr> </tbody> </table>	Date	Price	Feb 4 <sup>th</sup>	300	Feb 6 <sup>th</sup>	304	Feb 7 <sup>th</sup>	319	Feb 8 <sup>th</sup>	317	Feb 11 <sup>th</sup>	319	Feb 12 <sup>th</sup>	333	Feb 13 <sup>th</sup>	331	Feb 14 <sup>th</sup>	332	Feb 18 <sup>th</sup>	348	Feb 19 <sup>th</sup>	346	10	L5	CO4		
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CASE STUDY (Compulsory)		20	L5	CO4																								
Q.8	Mr. David is constructing an optimum portfolio. The market return forecast says that it would be 13.5% for the next 2 years with the market variance of 10 per cent. The riskless rate of return is 5 per cent. The following securities are under review. Find out the optimum portfolio :																											
	<table border="1"> <thead> <tr> <th>Company</th> <th><math>\alpha</math></th> <th><math>\beta</math></th> <th>Residual Variance</th> </tr> </thead> <tbody> <tr> <td>ABC</td> <td>3.72</td> <td>0.99</td> <td>9.35</td> </tr> <tr> <td>PQR</td> <td>0.60</td> <td>1.27</td> <td>5.92</td> </tr> <tr> <td>XYZ</td> <td>0.41</td> <td>0.96</td> <td>9.79</td> </tr> <tr> <td>MNO</td> <td>0.22</td> <td>1.21</td> <td>5.39</td> </tr> <tr> <td>IJK</td> <td>0.45</td> <td>0.75</td> <td>4.52</td> </tr> </tbody> </table>				Company	$\alpha$	$\beta$	Residual Variance	ABC	3.72	0.99	9.35	PQR	0.60	1.27	5.92	XYZ	0.41	0.96	9.79	MNO	0.22	1.21	5.39	IJK	0.45	0.75	4.52
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