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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATIONS- 2026

BBA VI Semester (Finance)

COURSE CODE (CREDITS): 25BBWHS633 (4) MAX MARKS: 35

COURSE NAME: INVESTMENT ANALYSIS

COURSE INSTRUCTOR: Dr. Vaishali Dhiman MAX. TIME: 2 Hour

Note: (a) All questions are compulsory.

(b) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems

(c) Use of calculator is allowed

Q.No	Question	CO	Marks
Q1	An investor is provided with the following market information: Risk-free rate $R_f = 6\%$ Expected market return $R_m = 14\%$ Covariance of stock with market = 0.012 Variance of market = 0.006 Actual return of stock $R_i = 15\%$ Standard deviation of market $\sigma_m = 10\%$ Standard deviation of portfolio $\sigma_p = 8\%$ Expected return of risky portfolio = 12% Calculate the following: i) Beta (systematic risk of stock) ii) Expected return using CAPM iii) Alpha (stock performance) iv) Expected return using CML v) Expected return using CAL	CO4	5
Q2	Explain the following futures contracts: i) Foreign Exchange Futures ii) Stock-Index Futures iii) Option Contracts	CO5	2+2+2=6
Q3	Explain how firms issue securities in the financial market and describe the process of trading securities in the stock market.	CO1	4
Q4	a) Explain the Capital Asset Pricing Model (CAPM) and its key assumptions. b) Discuss the role and significance of beta and alpha in measuring the risk and performance of a security.	CO2	3+2 = 5

<table>
<tr><td>Q5</td><td>Explain the Fama–French Three-Factor Model in detail by describing its factor (market risk, size effect, and value effect). Also discuss how this model improves upon the traditional Capital Asset Pricing Model (CAPM) in explaining stock returns.</td><td>CO5</td><td>5</td></tr>
<tr><td>Q6</td><td>An analyst is evaluating a stock using the Multifactor Arbitrage Pricing Theory (APT) model. The stock is influenced by 3 macroeconomic factors:
<table>
<tr><th>Factor</th><th>Beta</th><th>Factor Return</th><th>Risk-Free Rate</th></tr>
<tr><td>GDP Growth (F1)</td><td>0.5</td><td>12%</td><td>4%</td></tr>
<tr><td>Interest Rate (F2)</td><td>-0.4</td><td>8%</td><td>4%</td></tr>
<tr><td>Inflation (F3)</td><td>0.3</td><td>10%</td><td>4%</td></tr>
</table>
Given:
Actual return of the stock = 13% and Risk-free rate = 4%
i) Calculate the expected return using Multifactor APT model.
ii) Identify which factor contributes the most to the stock return.
iii) Explain the effect of interest rate changes on stock returns.
iv) Determine whether the stock is undervalued or overvalued.</td><td>CO4</td><td>5</td></tr>
<tr><td>Q7</td><td>Given:
a) Safe Government Securities
Investment = $1000, Guaranteed return = 4%
b) Stock Market Fund
Given different scenarios of stock market investment:
<table>
<tr><th>Market Scenario</th><th>Probability</th><th>Dividend</th><th>Possible Price (Year-End Price)</th></tr>
<tr><td>Excellent (Bullish)</td><td>25%</td><td>40</td><td>1310</td></tr>
<tr><td>Good (Normal)</td><td>45%</td><td>40</td><td>1140</td></tr>
<tr><td>Poor (Bear)</td><td>30%</td><td>40</td><td>932</td></tr>
</table>
Calculate the following:
i) Return after 1 year for the safe investment.
ii) Expected return on stock market investment.
iii) Risk (Standard Deviation) on stock market investment.
iv) Risk Premium on stock market investment.
v) Expected Ending Value of that stock.</td><td>CO3</td><td>5</td></tr>
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