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**Presidency University**

**Bengaluru**

 **School of Management**

**Summer term End-Term Examination - August 2024**

**Date**: 05-08-2024 **Time**: 01.00pm to 04.00pm **Max Marks**: 100

**Weightage**: 50%

**Semester**: 3rd

**Course Code**: MBA 3005

**Course Name**: Investment Management

**Department:** SOM

 **Instructions:**

1. *Read the all questions carefully and answer accordingly.*
2. *Do not write any information on the question paper other than roll number.*
3. *Question paper consists of 3 parts.*

**PART A**

**Answer any 10 Questions. Each question carries 3 marks. (10Qx 3M= 30)**

1. State the various investment options available to an investor (C.O.No.1) [Knowledge Level]
2. State the features of a bond. (C.O.No.1) [Knowledge Level]
3. How is a callable bond useful to the issuing company. (C.O.No.1) [Knowledge Level]
4. What are coupon Bonds and Non-Coupon Bonds? (C.O.No.1) [Knowledge Level]
5. Distinguish between Fundamental Analysis and Technical Analysis.(C.O.No.4) [Comprehension Level]

6 Assume that you are an investment adviser who has instructed one of your clients to invest their $100000 in U.S Treasury notes due to mature in 2 years. If your client becomes worried that a general increase in the level of interest rates will reduce the market value of his bond portfolio, what should you say to allay your client’s fears? (CO:03 Knowledge)

7 Assume you are an investment counsellor and one of your clients reads something about interest-rate risk and is worried that if market interest rates declined her coupon interest income will likewise decline. Her bond investments have maturities raging from 15 to 30 years. What advice is appropriate for this client? (CO:03 Knowledge)

1. The Logan Corporation currently has earnings that are $4 per share. In recent years earnings have been growing at a rate of 7.5 percent, and this rate is expected to continue in the future. If the Logan Corporation has a retention rate of 40% and a required rate of return of 14 percent, what is its current value? (CO:02 Knowledge)
2. Explain the difference between systematic risk and unsystematic risk. Can you provide examples of each, and how might an investor diversify to manage these types of risks? (CO :02)[Knowledge]
3. List out the five steps in the Investment process. (CO :01) [Knowledge]
4. The Jackson Corporation has a required rate of return of 16% and its current dividend is $3 per share. If the current price of Jackson’s stock is $55 per share, what is the growth rate of its dividends? (CO :02) [Knowledge]

1. How does diversification reduce portfolio risk. Provide a scenario where adding a new asset to a portfolio decreases the overall risk of the portfolio. (CO :2) [Knowledge]

**PART B**

**Answer any 4 Questions. Each question carries 10 marks. (4Qx 10M= 40)**

1. KL Ltd just paid a dividend of Rs.3 for the previous year. The dividend is expected to remain constant forever. If the required rate of return for the investment is 15% pa, what should be the intrinsic value of this share? (C.O.No.4) [Comprehension Level]
2. The following information is available:

Expected return for the market = 14%.

Standard deviation of market return = 20%.

Risk-free return = 6%.

Correlation coefficient between stock A and the market = 0.7.

Correlation coefficient between stock B and the market = 0.8.

Standard deviation for stock A = 24%.

Standard deviation for stock B = 32%.

(a) Calculate the beta for stock A and stock B.

b) Calculate the required return for each stock. (CO :02) [Application]

1. Consider the following two bonds with the same yield-to-maturity (YTM) of 6%: Bond A is a 15-year, 25% coupon bond, and bond B is a 5-year, 5% coupon bond. (Assuming a Face Value of $1,000)
2. Compute the prices for both bonds.
3. What happens to the prices of these bonds if the YTM increases to 7% in the next year, everything else being the same? (Hint: calculate the price for next year with YTM = 7%) (CO:02 Application)
4. The returns on securities 1 and 2 under five possible states of nature are given below:

|  |  |  |  |
| --- | --- | --- | --- |
| State of nature | Prob. | Return on SBI (in %) | Return on HDFC (in %) |
| 1 | 0.1 | -10 | 5 |
| 2 | 0.3 | 15 | 12 |
| 3 | 0.3 | 18 | 19 |
| 4 | 0.2 | 22 | 15 |
| 5 | 0.1 | 27 | 12 |

Compute: (a) Expected return on securities. (b) Covariance between the returns on securities(CO:03 Application)

1. Mr Christopher provides the following information of his portfolio for the year 2023:

|  |  |  |
| --- | --- | --- |
| Asset | Amount Invested Rs | Returns % |
| RIL | 500000 | 20% |
| SBI | 800000 | 12% |
| TISCO | 1000000 | 22% |

From the above, (a) Compute the Portfolio Return . (b) Explain the expected return on a portfolio of risky assets? (CO:03 Application)

1. The Share Price of Tata Steel for a 5-year period is given below:

|  |  |
| --- | --- |
| **Year** | **Closing Rs** |
| 2018 | 683 |
| 2019 | 650 |
| 2020 | 720 |
| 2021 | 780 |
| 2022 | 715 |
| 2023 | 800 |

Considering the above, compute:

* 1. CAGR of Returns for a period of 5 Years from 2018 to 2023
	2. Real Return of Tata Steel for the 5 Year period assuming an average Inflation of 7% p.a. (CO:01 Application)

**PART C**

**Answer the following Questions. (2Qx 15M= 30)**

1. You are employed as a Financial Analyst with M/s Morgan Stanley. You are assigned the task of computing the Intrinsic Value per Equity Share of M/s Chaya Agro Ltd. The data that is provided to you is as follows:

|  |  |
| --- | --- |
| **Particulars** |  |
| Paid up Equity Share Capital | ₹300 Lacs |
| Face Value per Share | ₹ 10  |
| Profit after Tax for the Year ended 31st March 2023 | ₹800 Lacs |
| Dividend Payout Ratio | 40% |
| Return on Equity (ROE) | 25% |
| Beta of the Company | 1.35 |
| Risk Free Rate of Return | 7.5% pa |
| Market Rate of Return | 18% pa |
| Market Price per Share  | ₹240 |

Considering the above information, you are required to

1. Compute the Intrinsic Value per Equity Share
2. Comment on whether this Share is Overpriced or Underpriced (CO:03 Analysis)

20 Calculate the duration of bond A. Face value Rs.1000,Coupon rate- 9% payable annually, Years to maturity 5, Redemption value Rs.1000, Current market price 962,

a) Compute Yield to Maturity

b) Duration of the Bond and Modified duration of the Bond

c) What would be the price of this bond if interest rates in the economy move up by 100 basis points?

 (C.O.No.4) [Application Level]