## PRESIDENCY UNIVERSITY BENGALURU

## SET A

## SCHOOL OF MANAGEMENT <br> END TERM EXAMINATION - JAN 2024

Semester: Semester III-2022
Course Code : MBA3005
Course Name : Investment Management
Program : MBA
Date : 17-JAN-2024
Time : 10:00AM - 1:00 PM
Max Marks : 100
Weightage : 50\%

## Instructions:

(i) Read all questions carefully and answer accordingly.
(ii) Question paper consists of 3 parts.
(iii) Scientific and non-programmable calculator are permitted.
(iv) Do not write any information on the question paper other than Roll Number.

## PART A

## ANSWER ALL THE QUESTIONS

$10 \mathrm{X} 3 \mathrm{M}=30 \mathrm{M}$

1. "Do you base your investment decisions on thorough research, financial statements, and fundamental analysis, or are you more inclined to follow market trends and momentum" Which one do you prefer and why?
(CO1) [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?
(CO2) [Knowledge]
3. Given the returns of two assets (Asset $X$ and Asset $Y$ ) for each of the last five years, how would you calculate the covariance between the returns of these two assets? Why is covariance important in measuring portfolio risk?
(CO2) [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?
(CO3) [Knowledge]
5. Jennifer Miles is seriously thinking about investing in the common stock of the Holmes Company. Holmes has a current market price of $\$ 35$ per share; Jennifer has estimated that Holmes should be selling for $\$ 30$ per share. Should Jennifer purchase the stock?
(CO3) [Knowledge]
6. Compare the characteristics of zero-coupon bonds and traditional coupon-paying bonds. What type of investor might prefer each?
7. Assume you are an investment counsellor and one of your client read something about interest-rate risk and is worried that if market interest rates declined her coupon interest income decline. Client bond investments have maturities ranging from 15 to 30 years. What advice is appropriate for this client?
(CO3) [Knowledge]
8. Mr. Ed Moss is considering investing in the stock of the Shemp Corporation. Ed expects Shemp to earn a return of 16 percent. Shemp's beta is 4 , Risk free rate is 8 percent, and Market return is 14 percent. Should Ed invest in the Shem corporation?
(CO2) [Knowledge]
9. 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?
(CO3) [Knowledge]
10. Name and explain a few common candlestick patterns used in technical analysis.
(CO4) [Knowledge]

## PART B

## ANSWER ALL THE QUESTIONS

$6 \times 7 M=42 M$
11. Identifying and trading based on Chart Pattern is one method followed by Traders in a market. The Technical Chart of M/s Medplus Health Ltd is provided below. Considering the chart you are required to

## 1. Identify the Chart Pattern

2. Explain the identified pattern with its implication on the future price movement of the stock.

3. 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 ( 4.5 marks)
2. Real Return of Tata Steel for the 5 Year period assuming an average Inflation of 7\% p.a. (2.5 marks)
(CO2) [Comprehension]
3. 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 $\$ 1,000$ )
4. Compute the prices for both bonds. (3 marks)
5. 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\%) (4 marks)
(CO3) [Comprehension]
6. (a) A company ABC Ltd. borrows Rs. 1 crore by issuing bonds that mature in 10 years at a coupon rate of $8 \%$. If the interest rates decline to $7 \%$ in the 7 th year, the company can call back the bonds and re-issue fresh bonds at a lower rate. Explain the concept discussed here.
(b) Mr Jalil wants to invest in a Coupon Bond which pays a Coupon of Rs 90 every year. This bond matures in 6 years. It has a face value of Rs 1000 and is trading at Rs 984. At what price should Mr Jalil buy this bond if the required return from the bond is $9 \%$ pa.
(CO3) [Comprehension]
7. 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 (5 marks). (b) Explain the expected return on a portfolio of risky assets?
(CO2) [Comprehension]
16. A portfolio consists of 3 securities, 1 , 2 , and 3 . The proportions of these securities are: $w 1=0.3, w 2=$ 0.5 , and $w 3=0.2$. The standard deviations of returns on these securities (in percentage terms) are: $s 1=6, s 2=9$, and $s 3=10$. The correlation coefficients among security returns are r12 $=0.4, r 13=$ $0.6, r 23=0.7$.
(a) What is the standard deviation of portfolio return?
(b) Explain covariance and correlation of portfolio of risky assets.
(CO2) [Comprehension]

## PART C

ANSWER ALL THE QUESTIONS
17. Mr Paresh is new to investing and wants to invest in Bonds / Debentures with an investment Time Horizon of 5 years. Mr Paresh's office colleague has recommended the following two debentures for investment, the details of which are as given below:

| SI. No. | Particulars |
| :--- | :--- |
| 1 | 6 Year Manappuram Finance Debenture with a Annual Coupon of <br> 9\% currently trading in the market for ₹ 1054 with a Face Value of <br> ₹ 1000 |
| 2 | 6 Year Dewan Housing Zero Coupon Debenture with a Principal <br> Value of Rs 1000 paying interest @ 9\% pa compounded annually <br> and trading in the market currently at ₹ 1074 |
|  |  |

Mr Paresh has recently read about Duration of a Bond and wants to invest in only ONE of the above Debentures whichever has a lower price variability. As a Investment expert, you are required to:

1. Compute the Duration of both these Debentures
2. Indicate the price variability of these Debentures for one percentage change in Interest Rate
3. Suggest to Mr Paresh as to which of these Debenture should he invest, considering his investment objective
4. You are employed as a Financial Analyst with M/s Chase Equity. You are assigned the task of computing the Intrinsic Value per Equity Share of M/s Bhavani Foods Ltd. The data that is provided to you is as follows:

| Particulars |  |
| :--- | :--- |
| Paid up Equity Share Capital | $₹ 600$ Lacs |
| Face Value per Share | $₹ 10$ |
| Profit after Tax for the Year ended 31st March <br> 2023 | $₹ 900$ Lacs |
| Retention Ratio | $50 \%$ |
| Rate of Growth in Dividends |  |
| Next 4 Years | $10 \%$ |
| After 4 Years | $5 \%$ |
| Required Return for Investor | $20 \%$ |
| Market Price per Share | $₹ 55$ |

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
