# PRESIDENCY UNIVERSITY, BENGALURU SCHOOL OF MANAGEMENT 

Max Time: 180 Mins
Weightage: $40 \%$
ENDTERM FINAL EXAMINATION
I Semester AY 2017-18
Course: FIN 301 SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT

## Instructions:

i. Write legibly
ii. Scientific and non programmable calculators are permitted

## Part A

[4 Q x 5 M=20 Marks]

1. What are Support and Resistance levels in Technical Analysis? How are they used for obtaining trade signals?
2. What are 'Yield Spreads'? How is this used as a Strategy in Bond Portfolio Management ?
3. What is $R^{2}$ ? What is its interpretation with regard to an Investment.
4. What are Callable and Puttable Bonds? When is a Call and Put option in a Bond likely to be exercised?

## Part B

[5 Q x 8 M=40 Marks]
5. Explain with diagrams any four Chart Patterns that are widely used in Technical Analysis.
6. Briefly explain the Efficient Market Hypothesis and the classification of markets as Weak, SemiStrong and Strong Markets.
7. The details of a Coupon Bond are as follows :

| Issue Price | $₹ 1000$ |
| :--- | :--- |
| Coupon Rate | $10 \% \mathrm{pa}$ |
| Coupon Payment | Annual |
| Maturity | 5 Years |
| Market Price | $₹ 1060$ |

From the above, calculate
a) Yield of the Bond
b) YTM of the Bond
c) The price you would pay for the bond if the current interest rates are $8 \%$ pa.
8. Eros Ltd. a dividend paying stock has a beta of 1.30. Its price is expected to touch $₹ 240$ a year from now. The returns of the market for the next one year is expected to be $15 \%$ and one year risk free rates are $8 \%$ pa. The dividend that is expected from the stock one year from now is ₹ 4 . From the information provided, compute :
a) Intrinsic value of the stock using single period holding of 1 year.
b) Intrinsic value of the stock using Dividend Discount Model assuming a constant growth rate of dividend to be $4 \%$ pa.
9. What are Relative Valuation models? In this regard explain PE ratio and also how PE ratio is useful in analyzing the price of a share.

## Part C

[2 Q x $20 \mathrm{M}=40$ Marks]
10. A investor is considering investing any one of the following Bonds. His objective is to reduce the interest rate risk using Duration Analysis. The details of the bonds are as follows:

| Type of Bond | Remaining <br> Maturity | Current Market Price of the <br> Bond |
| :--- | :--- | :--- |
| $8.5 \%$ Annual Coupon Bond | 5 Years | ₹ 1050 |
| $9.0 \%$ Zero Coupon Bond <br> ( Annual Compounding ) <br> ( Original Maturity was 7 Years ) | 5 Years | ₹ 1200 |

If the Current Interest rates are $8 \%$ pa, find the Modified Duration of both the Bonds and advise the investor with regard to which investment he should consider taking into account his objective.
11. You are considering investing in the following portfolio's, the historical information of which is given below along with the market :

|  | Historical Returns |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Year | HDFC | ICICI | IDFC | Market Index |
| 2013 | $18 \%$ | $22 \%$ | $20 \%$ | $14 \%$ |
| 2014 | $24 \%$ | $26 \%$ | $18 \%$ | $8 \%$ |
| 2015 | $-6 \%$ | $-14 \%$ | $-10 \%$ | $2 \%$ |
| 2016 | $10 \%$ | $12 \%$ | $8 \%$ | $10 \%$ |
| 2017 | $14 \%$ | $20 \%$ | $22 \%$ | $12 \%$ |

Using the above information rank the portfolio's using Sharpe Ratio, Treynor Ratio and Alpha. Also state which of the funds have outperformed the market. Assume that the average risk free rate of return to be $7 \%$ pa.

# 2016 MBA III Semester MID TERM EXAMINATION 

## Instructions:

i. Write legibly

## Part A

(5 Q x $2 \mathrm{M}=10$ Marks)

1. State any four constraints of Investment.
2. What is meant by Purchasing Power Risk with regard to Investments?
3. What is Effective Rate of Return? Give Example.
4. What is Beta? What is the implication of having Zero Beta?
5. What is a Market Index ? State any two International Equity Market Indexes.

## Part B

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(6 \mathrm{Q} \times 5 \mathrm{M}=30 \text { Marks })
$$

6. Differentiate between Systemic and Un systemic Risk of Investments.
7. What is Risk Tolerance of an Investor? Explain the various factors that influence Risk Tolerance.
8. An Investor has two investment options. The details of the investments are given below :

| Investment of | Pre Tax Annual <br> Percentage <br> Returns | Compounding <br> Returns | Tax Rate on Returns |
| :--- | :--- | :--- | :--- |
| Tax Free Bond | $9.5 \%$ | Quarterly | $0 \%$ |
| Taxable Bond | $12.00 \%$ | Annual | $20 \%$ |

If the expected Inflation in the economy is $6 \%$ pa, compute the After Tax Effective Real Rate of Returns on both the investments
9. The price movement of a Stock and the Market Index are given below :

| Year | Stock | Market |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Opening Price | Closing Price | Opening Price | Closing Price |
| 1 | 106 | 124 | 1200 | 1260 |
| 2 | 124 | 100 | 1260 | 1380 |
| 3 | 100 | 130 | 1380 | 1340 |
| 4 | 130 | 150 | 1340 | 1420 |
| 5 | 150 | 166 | 1420 | 1500 |

From the above information determine whether the stock is an Aggressive stock or a Defensive Stock.
10. What is an 'Investment'? What are the various steps involved in the process of Investment? Briefly explain.
11. From the following information, find the CAGR of the Investment :

| Year | Opening Price | Closing Price | Dividend |
| :--- | :--- | :--- | :--- |
| 1 | 208.00 | 226.00 | 4.00 |
| 2 | 226.00 | 202.00 | 3.00 |
| 3 | 202.00 | 244.00 | 4.00 |
| 4 | 244.00 | 268.00 | 3.00 |
| 5 | 268.00 | 256.00 | 2.00 |

## Part C

12. A investor wants to create a 2 Asset Equal Weighted Portfolio from out the 3 stocks that he has selected. The details of the year end stock price for the past 5 years is as follows :

| Year | Stock X | Stock Y | Stock Z |
| :--- | :--- | :--- | :--- |
| 1 | 90 | 400 | 200 |
| 2 | 110 | 380 | 240 |
| 3 | 140 | 360 | 280 |
| 4 | 120 | 440 | 220 |
| 5 | 130 | 500 | 300 |

The investor wants to create a equal weighted portfolio of Stock X and either of Stock Y or Stock Z . Suggest to the investor which 2 asset combination either XY or XZ would reduce the risk to the maximum extent with necessary calculations and explanation.

