# VPM's <br> DR VN BRIMS, Thane <br> Programme: PGDM (2016-18) <br> Sixth Trimester Examination April 2018 

| Subject | Security Analysis and Portfolio Management |  |  |
| :---: | :---: | :---: | :---: |
| Roll No. | 7 | Marks | 60 Marks |
| Total No. of Questions | 2 | Duration | 3 Hours |
| Total No. of printed pages | Date | $\mathbf{0 4 / 0 4 / 2 0 1 8}$ |  |

Note: Q1 is compulsory and solve any FOUR from the remaining SIX questions.
The investment portfolio of the bank is as follows

| Government Bond | Coupon Rate | Purchase Rate (FV-100) | Duration(Years) |
| :--- | :--- | :--- | :--- |
| GOI 2006 | 11.68 | 106.50 | 3.50 |
| GOI-2010 | 7.55 | 105.00 | 6.50 |
| GOI-2015 | 7.38 | 105.00 | 7.50 |
| GOI-2022 | 8.35 | 110.00 | 8.75 |
| GOI-2032 | 7.95 | 101.00 | 13.00 |

Face Value of total investment in each government bond is 5 crs
Calculate actual investment in the portfolio
What is the suitable action to churn out investment portfolio in the following scenario?

1. Interest rate is expected to be lower by 25 basis point.
2. Interest rate is expected to be increased by 75 basis point.

Also calculate the revised duration of investment portfolio in each scenario.
3. List down few government bonds in India which can be a good investments in the current scenario.

## Q2 Solve the following (5x2) = 10 Marks

(a) Calculate the covariance and correlation of two securities

| Years | Security 1 (returns \%) | Security 2 (returns \%) |
| :---: | :---: | :---: |
| 1 | 12 | 20 |
| 2 | 8 | 22 |
| 3 | 7 | 24 |
| 4 | 14 | 18 |
| 5 | 16 | 15 |
| 6 | 15 | 20 |
| 7 | 18 | 24 |
| 8 | 20 | 25 |
| 9 | 16 | 22 |
| 10 | 22 | 20 |

(b) Explain with examples systematic and unsystematic risk ?

## Q3. Solve the following

 (5x2) $=10$ Marks(a) An investor seeking the price to pay for a security whose standard deviation is $3 \%$. The correlation coefficient of the security with the market is 0.80 and the market standard deviation is $2.20 \%$. The return from government security is $5.20 \%$ and from the market portfolio is $9.80 \%$. The investors know that by calculating required return, he can determine the price to pay for the security. What is the required rate on the security?
(b) What is the difference between SML and CML ?

Q4. Solve the following
(5x2) = 10 Marks
(a) What are the forms of Efficient Market Hypothesis?
(b) What are the different investment avenues? Being a portfolio manager which avenues will you suggest and why?
(a) X ltd co invested in certain equity shares as on 01/04/2005

| Name of the company | No of shares | Cost |
| :--- | :--- | :--- |
| M Ltd | 1000 (Rs 100 each) | 200000 |
| N Lltd | 500 (Rs 10 each ) | 150000 |

On September $5^{\text {th }} 10 \%$ dividend was paid out by M ltd and in October 2005, 30\% dividend was paid out by N Ltd as on 31/03/2006. Market quotation showed a valued of 220 and 290 per share respectively for M and N ltd.
(b) An investor is holding 1000 shares of fatless company. Presently the dividend paid by the company is rs 2 per share and the share is being sold at rs 25 per share in the market. However several factors are likely to change during the year which is as follows.

|  | Existing | Revised |
| :--- | :--- | :--- |
| Risk free rate | $12 \%$ | $10 \%$ |
| Market risk premium | $6 \%$ | $4 \%$ |
| Beta value | 1.4 | 1.25 |
| Expected growth rate | $5 \%$ | $9 \%$ |
|  |  |  |

With the view of above factors, whether the investor should buy, hold or sell the security?
Q6. Solve the following
(5x2) = 10 Marks
(a) A has invested in 3 mutual fund schemes as per details given below

|  | MF A | MF B | MF C |
| :--- | :--- | :--- | :--- |
| Date of Investment | $01 \backslash 12 \backslash 03$ | $01 / 01 / 04$ | $01 / 03 / 04$ |
| Amount of Investment | 50000 | 100000 | 50000 |
| NAV at entry date | 10.50 | 10 | 10 |
| Dividend received <br> $31 / 03 / 07$ | 950 | 1500 | nil |
| NAV | 10.40 | 10.10 | 9.80 |

What is the effective yield on per annum basis in respect of each of the three schemes to Mr A unto $31 / 03 / 2004$ ?
(b) What are sartorial fund, looking at today's market which sector should a mutual invest in to get a return of $15 \%$ p.a and above.

Q7. Solve the following —— (5x2) = 10 Marks

| Securities | U | V | W | X | Y | Z |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Returns \% | 10 | 10 | 15 | 5 | 11 | 10 |
| Risk (SD) | 5 | 6 | 13 | 5 | 6 | 7 |

(a). Which security will be selected for investment.

Assuming a perfect correlation, whether it is preferable to invest, $80 \%$ in security U and $20 \%$ in security W or $100 \%$ in Y.
(b) Differentiate between primary and secondary markets.

