VPM's
DR VN BRIMS, Thane
Programme: PGDM (2017-19) (Finance)
PGDM Trimester V Examination December 2018

| Subject | Fixed Income Securities |  |  |  |  |  |
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| Roll No. |  |  |  |  | Marks | $\mathbf{6 0}$ Marks |
| Total No. of Questions | 7 | Duration | 3 Hours |  |  |  |
| Total No. of printed pages | 1 | Date | $\mathbf{2 2 . 1 2 . 2 0 1 8}$ |  |  |  |

Note: Q1 is compulsory and solve any FOUR from the remaining SIX questions. Q1) $\mathbf{2 0}$ Marks (Compulsory)

Explain in less than 200 words the present IL\&FS Crisis and its Impact on Debt markets and NBFC Sector. Role of various participants including Credit Ratings Agencies, Debt Funds and NBFCs

## Attempt Any FOUR from the Remaining SIX Questions

Q2) Answer the Following Questions (5x2) = 10 Marks
a) Explain in brief the Concept of 'Convexity'
b) Describe and interpret a model for Fixed Income returns $E(R)$.

Q3) Answer the Following Questions (5x2) = 10 Marks
a) Elaborate the role of Fixed Income as an asset class in Portfolio management.
b) What is 'Immunisation' and mention the strategies of Immunisation.

Q4) Answer the Following Questions (5x2) = 10 Marks
a) Distinguish between Duration \& Cash Flow matching strategies Immunization.
b) Explain the Concept of 'Spread Duration'

Q5) Answer the Following Questions (5x2) = 10 Marks
a) Suppose you have a two-security portfolio containing Bonds $A$ and $B$. The market value of $B$ ond $A$ is Rs. 6000 and market value of Bond $B$ is Rs 4000 . The Duration of Bond $A$ is 8.5 and duration of Bond $B$ is 4.0. Calculate the Duration of the portfolio.
b) Consider a G-Sec Bond with Current Price of Rs. 908 and a YTM of $9 \%$. Calculate the percentage change in price of both $1 \%$ increase and decrease in YTM based on Duration of 9.42 and a Convexity of 68.33 .

Q6) Answer the Following Questions (5x2) = 10 Marks
a) Consider a 20-year Semi-Annual pay bond with an 8\% coupon that is currently priced at Rs. 908 to yield $9 \%$ (YTM). If the yield declines by 50 basis points (to $8.5 \%$ ), the price will increase to Rs. 952.3 and if the yield increases by 50 basis points (to $9.5 \%$ ), the price will decline to Rs.866.8. Based on these price and yield changes, calculate the Effective Duration of this bond.
b) What is the expected $\%$ price change for a Bond with an effective duration of 9 in response to an increase in the yield of 30 basis points?

Q7) Answer the Following Questions (5x2) = 10 Marks
a) A bond has a market value of Rs.100,000 and a Duration of 9.42 . What is the price value of a basis point?
b) What are Swaptions? What is the difference between Bermudan, American and European Swaptions?

