# MASTER OF BUSINESS ADMINISTRATION FINANCIAL MARKETS <br> (MBAFM) 

Term-End Examination
June, 2013

## MCT-078 : FINANCIAL MODELLING

Time : 3 hours Maximum Marks : 100

## SECTION - A

(All questions are compulsory)

1. The following are the two proposals with cost of 30 capital being $7.00 \%$. Please calculate using IRR, NPV and Discounted Pay Back period whether we should accept System A or System B with reasons :
Cash Flow - System A Cash Flow - System B

| Year | Cash Flow Rs. | Year | Cash Flow Rs. |
| :---: | :---: | :---: | :---: |
| 0 | -6,00,000 | 0 | -6,00,000 |
| 1 | +75,000 | 1 | +25,000 |
| 2 | +1,00,000 | 2 | +75,000 |
| 3 | +150,000 | 3 | +85,000 |
| 4 | +200,000 | 4 | +100,000 |
| 5 | +210,000 | 5 | +150,000 |
| 6 | +150,000 | 6 | +450,000 |
| Total | 285,000 | Total | 2,85,000 |

2. Financial information for Horizon Ltd.
Profit and Loss Account Data (in Lakhs)

Sales

800
Cost of Goods Sold ..... 720

| Balance | Beg.of | End of |
| :--- | :---: | :---: |
| Sheet Data | $\mathbf{2 0 0 X}$ | $\mathbf{2 0 0 X}$ |
| Inventory | 96 | 102 |
| A/C Receivable | 86 | 90 |
| A/C Payable | 56 | 60 |

Find the Operating and Cash Cycle for Horizon
Ltd.
3. Apex Ltd. classifies its customers into five risk 10 categories, 1 through 5. Presently, Apex extends unlimited credit to customers in category 1 through 3 , limited credit to customers in category 4 and no credit to customers in category 5. Due to this policy, the company is foregoing sales of Rs. 3 MM to customers in category 4 and Rs. 6 MM to customers in category 5. Apex is considering the adoption of a more liberal policy under which customers in category 4 would be extended unlimited credit and customers in
category 5 would be extended limited credit. Such relaxation would increase sales by Rs. 9 MM on which bad debt losses would be $10 \%$. The contribution margin ratio for Apex is $20 \%$. The average collection period is 50 days and the post-tax cost of funds is $12 \%$. The tax rate for Apex is $40 \%$. What is the effect of relaxing the credit policy on residual income?
4. Prepare a loan repayment schedule for your
financial model with following data :

| Loan | 92000000 |
| :--- | ---: |
| Rate of interest | $10.00 \%$ |
| Repayment | 48 months |

Please prepare a schedule from April 13 to March 2017, assuming first repayment at the beginning of the loan.

## SECTION - B

(Attempt any three)

## 5. Attempt any three : <br> $10 \times 3=30$

(a) Explain factors affecting Working Capital.
(b) Define WACC with example.
(c) What terminal growth you would take for Infosys, along with the probable reasons for the same terminal growth rate ?
(d) Explain cash cycle and operation cycle.
(e) Parameters to consider before selecting comparable companies.

