# K.J. Somaiya Institute of Management Studies \& Research <br> Course: PGDM (FS) - II Tri. End Term Exam <br> Sub: Financial Management 

Date of Exam: 2nd Jan., 2017
Time: 3 Hours
Marks: 50 Marks
Note: 1. Attempt any Five Question Each of 10 Marks
2. Use of scientific calculator is allowed but not mobile phones or financial calculators.

## Question No. 1

The MNC Company Limited has decided to increase its productive capacity to meet an anticipated increase in demand for its products. The extent of this increase in capacity is still to be determined and a management meeting has been called to decide which of the following two mutually exclusive Proposals-I and II should be undertaken. On the basis of the following information given below you are required to:
(a) Evaluate the profitability (ignoring taxation) and
(b) Advise management in deciding between Proposal I and Proposal II on the assumption of cost of capital of $8 \%$. (Calculate NPV, BCR and Payback Period)
(c) State the matters to be taken into consideration while deciding between Proposal I and Proposal II.

| Particulars | Proposal I | Proposal II |
| :--- | :---: | :---: |
| Buildings | 50000 | 100000 |
| Plant | 200000 | 300000 |
| Installation | 10000 | 15000 |
| Working capital (note iii) | 50000 | 65000 |
| Net income: |  |  |
| Annual pre-depreciation profits (note i) | 70000 | 95000 |
| Other relevant income/expenditure including sales | --- | 15000 |
| promotion (note ii) | 10000 | 15000 |
| Plant scrap value | 30000 | 60000 |
| Building disposable value |  |  |

Notes:
i. The investment life is 10 years.
ii. An exceptional amount of expenditure on sales promotion of Rs. 15000 will be spent in year 2 on proposal II. This has not been taken into account in calculation pre-depreciation profits.
iii. Working capital is recovered at book value

## Question No. 2

X Limited has credit sales of Rs. 360 lakhs and its average collection period is 30 days. The financial controller estimates that the bad debts losses are around $2 \%$ of credit sales. The firm spends Rs. 140000 annually on debtors' administration. This cost comprises of telephonic and fax bills along with salaries of staff members. These are the avoidable costs. A factoring firm has offered to buy the firms receivables. The factor will charge $1 \%$ commission and will pay and advance against receivables on an interest @ $15 \%$ p.a. after withholding $10 \%$ as reserve.
Required: Should company engage factor? (Assume 360 days in a year).

## Question No. 3

Determine the weighted average cost of capital based on the following information:

| Capital Structure | Amount |
| :--- | :--- |
| Debentures (Rs. 100 per debenture) | Rs. 800000 |
| Preference shares (Rs. 100 per share) | Rs. 200000 |
| Equity shares (Rs. 10 per share) | Rs. 1000000 |
| Total | Rs. 2000000 |

Recent market price of all these securities are: Debentures Rs. 110 per debenture; Preference shares: Rs. 120 per share; and equity shares: Rs. 22 per share.

External financing opportunities are:
i. Rs. 100 per Debenture redeemable at par, 10 year maturity, $13 \%$ interest rate, $4 \%$ flotation cost and sales price Rs.100;
ii. Rs. 100 per Preference share redeemable at par, 10 year maturity, $14 \%$ dividend rate, $5 \%$ flotation cost and sales price Rs.100; and
iii. Equity shares- Rs. 2 per share and sale price Rs. 22 .

Dividend expected on equity shares at the end of the year is Rs. 2 per share; anticipated growth rate in dividend is $7 \%$. Company pays all its earnings in the form of dividends. Corporate tax rate is $30 \%$.

## Question No. 4

Calculate the amount of working capital requirement for SRDD Limited from the following information:

|  | Rs. Per Unit |
| :--- | :--- |
| Raw material | 160 |
| Direct labour | 60 |
| Overheads | 120 |
| Total cost | 340 |
| Profit | 60 |
| Selling Price | 400 |

Raw materials are held in stock on an average for one month. Materials are in progress on an average for half-a-month. Finished goods are in stock on an average for one month.
Credit allowed by suppliers is one month and credit allowed to debtors is two months. Time lag in payment of wages is $1 \frac{1}{2}$ weeks. Time lag in payment of overheads expenses is one month. $1 / 4$ of the sales are made on cash basis.
Cash in hand and at the bank is expected to be Rs.50000. Expected level of production is 104000 units for a year of 52 weeks.
Note: Show all calculations in weeks.

## Question No. 5

The purchase manager of an organization has collected the following data for one of the A class items.

| Interest on the locked up capital | $20 \%$ |
| :--- | :--- |
| Order processing cost for each order | Rs. 100 |
| Inspection cost per lot | Rs. 50 |
| Follow up cost for each order | Rs. 80 |
| Pilferage while holding inventory | $5 \%$ |
| Other holding cost | $15 \%$ |
| Other procurement cost for each order | Rs. 170 |
| Annual demand | 1000 units |
| Cost per item | Rs. 10 |
| Discount for a minimum order quantity of 500 items | $10 \%$ |

## Calculate

1. EOQ
2. Total cost at EOQ and at 500 items quantity.

## Question No. 6

Sales and working capital of Glaxo Ltd. for a period of 3 years are given below:

| Year | Sales Turnover (Rs. in Cr.) | Net Current Assets (Rs. in Cr.) |
| :---: | :---: | :---: |
|  |  |  |
| 2000 | 858.34 | 70.75 |
| 2001 | 992.14 | 118.12 |
| 2002 | 870.53 | 116.15 |

Estimate the working capital requirement for the year 2003 by regression analysis, if an anticipated sale is Rs. 950 Cr.

## Question No. 7

A company currently has an annual turnover of Rs. 1000000 and an average collection period of 45 days. The company wants to experiment with more liberal credit policy on the ground that increase in collection will generate additional sales.

From the following information, kindly indicate which of the policies you would like the company to adopt:

| Credit policy | Increase in credit period | Increase in sales | \% of Default |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| I | 15 days | Rs. 50000 | $2 \%$ |
| II | 30 days | Rs. 80000 | $3 \%$ |
| III | 40 days | Rs. 100000 | $4 \%$ |
| IV | 60 days | Rs.125000 | $6 \%$ |

The selling price of the product is Rs.5, and the variable cost per unit is Rs.3. The current bad debts loss is $1 \%$ and the required rate of return on investment is $20 \%$. A year can be taken to comprise of 360 days.

## Question No. 8

(I) Mr. Prasad is considering to purchase a commercial complex that will generate a net cash flow of Rs. 400000 at the end of one year. The future cash flows are expected to grow at the rate of $4 \%$ p.a. Mr. Prasad's required rate of return is $12 \%$. Mr. Prasad would be willing to pay the amount of $\qquad$ for the complex if he wishes to sell it at the end of four years at Rs. 40 lakh, net of transaction costs.
a. Rs. 4958921
b. Rs. 3826958
c. Rs. 15613927
d. Rs. 16151256
e. Rs. 18277509
(II) At the time of retirement Mr. Swamy is given a choice between two alternatives.
i. An annual pension of Rs. 20000 as long as he lives.
ii. A lump sum payment of Rs. 150000 . if Mr. Swamy expects to live for 15 years and rate of interest is $15 \%$, which alternative should he select.
(Note: PVFA@15\%, 15 Years = 5.847)

## Question 9

## Short Notes (Any Two)

1. ABC Analysis
2. Factoring Process
3. Drawbacks of IRR

## PV Table

| Year | PVF |  |  |
| :--- | :--- | :--- | :--- |
|  | $\mathbf{1 2 \%}$ | $\mathbf{8 \%}$ | $\mathbf{1 5 \%}$ |
| 1 | 0.893 | 0.926 | 0.870 |
| 2 | 0.797 | 0.857 | 0.756 |
| 3 | 0.712 | 0.794 | 0.658 |
| 4 | 0.636 | 0.735 | 0.572 |
| 5 | 0.567 | 0.681 | 0.497 |
| 6 | 0.507 | 0.630 | 0.432 |
| 7 | 0.452 | 0.583 | 0.376 |
| 8 | 0.404 | 0.540 | 0.327 |

