# K.J. Somaiya Institute of Management Studies \& Research <br> Course: MIM- II Sem. End Term Exam <br> Sub: Financial Management 

Date of Exam: 9th April, 2018.
Time: 3 Hrs.
Marks: 50

1. Solve any Five each carries 10 marks.
2. Use of scientific calculator is allowed but not financial calculator or mobile phone.

## Question No. 1 (A)

A person deposit Rs. 200000 in his deposit account at the end of every quarter @ $12 \%$ p.a. compounded quarterly. Determine the account balance at the end of 4 years. (Hint: Use concept of Capital Recovery)

## Question No. 1 (B)

A bank granted a loan of Rs. 1269600 repayable in 4 equal annual installment beginning with the end of first year. Determine the amount of installment if effective rate of interest is $18 \%$ p.a. (Hint: Use concept of loan amortization)

## Question No. 2

A company is considering a proposal of installing a drying equipment. The equipment would involve a cash outlay of Rs. 600000 and working capital of Rs. 80000 . The expected life of project is 6 years without any salvage value. Assume that the company is allowed to charge depreciation on SLM basis and that the tax rate is $50 \%$. The estimated cash flows are given below:

| Year | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cash flows | 155 | 140 | 130 | 125 | 110 | 180 |

If the company's cost of capital is $12 \%$. Calculate NPV, IRR, BCR and Payback period of project. Also suggest accepting or rejecting project.

## Question No. 3

In order to finance expansion plan, LCD Ltd. requires Rs. 20 lakhs and provide you the following information:

1. Various sources by which Rs. 20 lakhs LCD Ltd. will raise is as follow:

| Source of Capital | Amount of each <br> source of capital |
| :--- | :--- |
| Equity | 400000 |
| Reserves and Surplus | 100000 |
| 18\% Preference Share Capital | 300000 |
| 12\% Term Loan | 400000 |
| 12.5\% Debenture | 800000 |
| Total | 200000 |

2. The prevailing risk free rate on GOI treasury bonds is $5.5 \%$. Market rate of Return ( Rm ) is $13.5 \%$. The beat of company is 1.1875 .
3. The corporate tax rate is $30 \%$.

Calculate Weighted Average Cost of Capital.

## Question No. 4

The management of JC \& Company Ltd. has called for a statement showing the working capital needed to finance a level of activity of 300000 units of output for the year. The cost structure for the company's product, for the above mentioned activity level, is detailed below:

| Raw materials | Rs.20 |
| :--- | :--- |
| Direct labour | 5 |
| Overheads | 20 |
| Total Cost | 45 |
| Profit | 5 |
| Selling Price | 50 |

Past trend indicates that the raw materials are held in stock, on an average, for 2 months. WIP will
approximate to $1 / 2$ month's production. Finished goods remain in warehouse, on an average, for 1 month. Suppliers of material extend 1 month's credit. Two month's credit is normally allowed to debtors. A minimum cash balance of Rs. 25000 is expected to be maintained. The production pattern is assumed to be even during the year. Cash sales are $75 \%$ less than the credit sales. Safety margin $20 \%$.
Required: Prepare a statement of working capital estimation.

## Question No. 5

Calculate the EOQ and the number of orders to be placed in a year in each of the following cases:

|  | Case A | Case B | Case C | Case D |
| :--- | :---: | :---: | :---: | :---: |
| Annual consumption | 100000 | 160000 | 3600 | 520000 |
| Cost of placing an order | Rs. 50 | Rs. 200 | Rs. 40 | Rs. 100 |
| Annual carrying cost | $8 \%$ | $25 \%$ | $5 \%$ | $6.5 \%$ |
| Price per unit of material | Rs. 20 | Rs. 40 | Rs. 64 | Rs. 200 |

## Question No. 6

A trader whose current sales are Rs. 250000 annually and an average collection period of 30 days. It is considering a more liberal credit policy. If the credit period is extended, the company expects sales and baddebt losses to increase in the following manner.

| Credit Policy | Increase in credit period | Increase in sales | Bad Debts (\%) |
| :---: | :---: | :---: | :---: |
| A | $33.33 \%$ | $5 \%$ | $1.2 \%$ |
| B | $50 \%$ | $7 \%$ | $1.5 \%$ |
| C | $100 \%$ | $8 \%$ | $1.8 \%$ |
| D | $140 \%$ | $10 \%$ | $2.2 \%$ |

The selling price per unit is Rs.4. Average cost per unit is Rs. 3 \& the variable cost per unit Rs.2.40. The current bad debt loss is $1 \%$. Required rate of return on additional investment is $20 \%$. Assume 360 days year. Required: Which of the above policies would you recommend for adoption?

## Question No. 7 (A)

FPR is expected to pay a $\$ 0.60$ dividend next year. The dividend is expected to grow at a $50 \%$ annually for 2 and 3 , at $20 \%$ annually for year 4 and 5 , and at $5 \%$ annually for year 6 and thereafter. If the required rate of return is $12 \%$, what is the value per share?

## Question No. 7 (B)

Hanson PLC is selling for Rs.472. Hansen has a beta of 0.83 , and the current dividend is $\$ 13.80$. The risk free rate of return is $4.66 \%$, and the risk premium is $4.92 \%$. An analyst covering this stock expects the dividend to grow initially at $14 \%$ but to decline linearly to $5 \%$ over a 10 year period. After that, the analyst expects the dividend to grow at $5 \%$. According to H-model valuation, is Hanson overpriced or underpriced?

## Question No. 8 (A)

Show the impact of six-for-five split on stock price, EPS and P/E ratio:

|  | Before Split | After Split |
| :--- | :--- | :--- |
| Number of shares outstanding | 4 million | $?$ |
| Market price | $\$ 40$ | $?$ |
| Total Market Value $(4 \times \$ 40)$ | 160 million | $?$ |
| EPS | $\$ 1.50$ | $?$ |
| P/E |  |  |

## Question No. 8 (B)

Determine the market value of equity shares of company from the following information as Walter's Model:

| Earnings of company | Rs. 1000000 |
| :--- | :--- |
| Dividend Paid | Rs. 600000 |
| Number of shares | 200000 |
| P/E Ratio | 8 |
| Rate of return on investment (r) | $15 \%$ |

Calculate Price of shares from above data also comment that you are satisfied with current dividend policy of firm.

Hint: $\mathrm{k}=1$ divided by $\mathrm{P} / \mathrm{E}$ ratio

