

**K.J. Somaiya Institute of Management Studies & Research**

Course: PGDM-COMM. II Tri. End Term Exam

Sub: Financial Management

Date of Exam: 07<sup>th</sup> Jan., 2019

Time: 3 Hrs.

Marks: 50

1. Question No.1 is compulsory (20 marks).
2. Solve any three from the remaining (10 marks each)
3. After compulsory question first three answers will be corrected.
4. Use of scientific calculator is allowed but not financial calculator or mobile phone.

**Question No.1 (A)**

A company intends to produce a single product whose estimated demand in year 1 is 1700 units. It is expected to increase by 85 units each subsequent year. Estimated price for year 1 is Rs.600 per unit which is expected to increase by Rs.15 per unit each subsequent year. Operating expenses excluding depreciation and interest on term loan for year 1 are estimated to be Rs.178000 which is expected to increase by Rs.20000 each subsequent year. At the beginning of project (at end of year 0) liabilities includes equity capital of Rs.6 lakhs and term loan of Rs.12 lakhs. Assets include land Rs.1 lakh and other fixed assets Rs.17 lakhs. Term loan is to be repaid in 5 years with equal annual installments and carries 12% rate of interest charged on opening balance of that year. Other fixed assets are depreciated at 10% per year by WDV method. Calculate DSCR and ICR for year 1 and 2.

Assume income tax rate is 35%. All units produced are sold in same year. All payments and expenses realized in same year.

**Question No.1 (B)**

The share capital of a company is Rs.1000000 with shares of face value of Rs.10. The company has debt capital of Rs.600000 at 10% rate of interest. The sales of the firm are 3000 units per annum at a selling price of Rs.5 per unit and variable cost is Rs.3. The fixed cost amounts to Rs.200000. The company pays tax at 35%. If the sales increase by 10% calculate:

1. Percentage increase in EPS.
2. DOL at the two levels, and
3. DFL at the two levels.

**Question No.2**

From the following details prepare working capital requirement forecast:

1. Production during the previous year was 120000 units. It is planned that this level of activity would be maintained during the present year.
2. The expected ratios of the cost to selling price are raw material 60%, direct wages 10%, and overheads 20%.
3. Raw material expected to remain in store for an average of 2 months before issue to production.
4. Each unit is expected to be in process for one month, the raw materials being fed into the pipeline immediately and the labour overhead costs accruing evenly during the month.
5. Finished goods will stay in warehouse awaiting dispatch to customer for approx. 3 months.
6. Credit allowed by creditors is 2 months from the date of delivery of raw materials.
7. Credit allowed to debtors is 3 months from the date of dispatch.
8. Selling price is Rs.5 per unit. There is regular production and sales cycle.
9. Wages and overheads are paid on the 1<sup>st</sup> of each month for the previous month.
10. Company normally keeps cash in hand to the extent of Rs.40000.

**Question No.3**

Determine the WACC from the following information:

Debentures (Rs.100 per debenture)	Rs.800000
Preference shares (Rs.100 per share)	200000
Equity shares (Rs.10 per share)	1000000

Recent market prices of all these securities are:

Debentures Rs.110 per debenture  
 Preference shares Rs.120 per share  
 Equity shares Rs.20 per share

External financing opportunities are:

1. Rs.100 per debentures redeemable at par, 10 year maturity, 13% coupon rate, 4% flotation cost and sale price Rs.100.
2. Rs.100 per preference share redeemable at par, 10 year maturity, 14% dividend rate, 5% flotation cost and sales price Rs.100, and
3. Equity shares- Risk free rate 7%, Beta 1.62, market risk premium 5%.
4. Corporate tax rate 50%.

**Question No. 4**

A firm has Rs.1000 per year carrying cost on each unit of inventory, an annual usage rate of 40000 units, and an ordering cost of Rs.2000 per order.

- (a) Calculate the EOQ for the firm.
- (b) What would be the total annual inventory costs of the firm if it orders in this quantity?
- (c) Assume that the supplier for the firm offers a quantity discount of Re.0.10 per unit if the firm orders in lots of 500 units. Should the firm accept the quantity discount?

**Question No. 5**

A given brand Radixio has conducted a survey that gives the result for its brand strength based on seven brand attributes. What is its brand strength and brand multiple?

Factors	Max. score	Radixio Score
Leadership	25	20
Stability	15	6
Internationally	15	11
Support	15	9
Protection	5	2
Market	5	5
Trend	20	11

Also with the help of below mention additional information calculate the value of brand:

- Brand’s current year operating income Rs.1000000.
- Brand’s previous year operating income Rs.800000
- Operating income of unbranded product Rs.100000
- Tax rate 35%.

**Question No. 6 (A)**

BMC Ltd. has the shareholder’s equity statement as follow:

Equity (Face value Rs.10)	300000
Retained earnings	900000
Total shareholders’ equity	1200000

The current market price of the stock is Rs.50 per share.

1. What changes will occur in equity account and to the number of shares outstanding with:
  - (a) 10% bonus shares
  - (b) A 2-for-1 stock split?
2. What would be the impact on market price of share in case of 10% bonus shares? Show effect with necessary calculation.

**Question No. 6 (B)**

1. A saving deposit pays interest at 9.8% compounded monthly. As the nominal interest rate is 9.8% determine the effective rate of interest for the saving deposit.
2. New ZA bank pays 12% and compounds interest quarterly. If Rs.2000 is deposited now, how much will it grow at the end of 5 years?

**Question No. 7 (A)**

From the following data, calculate the market price of a share of XYZ Ltd. under:

- (a) Walter model
- (b) Gordon model

EPS	10
DPS	6
$K_e$	20%
R	25%
Retention ratio (b)	50%

**Question No. 7 (B)**

1. Calculate IRR if initial investment is Rs.200 and cash inflows for 2 years are 120 & 144.
2. Calculate NPV if initial investment is 500 and cash inflow for subsequent years are 50, 75, 125, 225 and 300. Assume discount rate of 10%.

**Question No. 8**

Explain in detail any two theories of capital structure.