### INDIAN INSTITUTE OF MATERIALS MANAGEMENT **DEC-2009**

Post Graduate Diploma in Materials Management

Paper 15

**Strategic Cost and Financial Management** 

#### Date: 12.12.2009 Time: 2.00 pm to 5.00 pm

Max.Marks: 100 **Duration: 3 Hours** 

#### **Instructions:**

- 1. From Part-A answer all questions (compulsory). Each question carries 8 marks.
  - Total: 32 Marks.
- 2. From Part B answer any 3 questions out of 5 questions. Each question carries 16 marks. Total: 48 Marks.
- 3. Part C is a case study (compulsory). Read the case carefully and answer the questions.

Total: 20 Marks.

# PART A

#### **Choose the right answer from below:** 01.

1. Net profit for the year Rs.15,00,000, Preference dividend Rs.2,50,000, Taxes Rs.1,00,000 and number of equity shares 1,00,000. Earnings per share should be Rs. -

(a) 15	(b) 12.50
© 11.50	(d) 11

2. Monthly demand for a product 500 units, set up cost per batch Rs.60, Cost of manufacturing 1 unit Rs.20 and interest rate 10% per annum. The units of Economic Batch Quantity should be ----

(a) 500	(b) 600
© 650	(d) 700

- 3. A company's fixed cost is Rs.120 lakhs per annum and its P/V ratio is 0.4. The annual sales of the company required to ensure a Margin of Safety of 25% is-----(a) Rs.300 lakhs (b) Rs.400 lakhs © Rs.500 lakhs (d) Rs.550 lakhs.
- 4. The term "Float" is used in the context of ---(a) Inventory Management (b) Receivable Management © Cash Management (d) Marketable Securities.
- 5. Long term sources of funds can be had from-
  - Bridge loan. (a)
  - (b) Trade credit.
  - © Working capital assistance from the bank.
  - (d) Equity shares.

- 6. Time value of money is considered under----
  - a) Pay-back method.
  - b) NPV method.
  - c) Average Rate of Return Method.
  - d) Post Pay-back Method.
- 7. One of the following is a non-current liability----
  - (a) Mortgage loan
  - (b) Sundry creditors.
  - © Outstanding salary.
  - d) Bills payable.
- 8. Conversion Cost is equal to the total of:----
  - a) Direct Material Cost and Direct Wages
  - b) Direct Material Cost and Indirect Wages
  - c) Direct Wages and Factory overhead
  - d) Direct Material Cost and Factory overhead

### Q.2. State whether the following statements are True or False:

# 1. Profit

Margin of safety = \_\_\_\_\_

P/V ratio

- 2. Horizontal analysis is also known as 'static analysis'.
- 3. Cash flow statement is based upon the accrual basis of accounting.
- 4. Lower certainty equivalent coefficients are indicators of lower risk of cash inflows.
- 5. For financial decision making, relevant costs are the historical costs.
- 6. Lessee can claim depreciation on asset acquired through lease arrangement.
- 7. According to MM theory, the total value of a firm is constant for different degrees of debt in a given capital structure.
- 8. Money market deals with long-term funds.

## **Q.3.** Fill in the blanks:

- 1. Direct materials+ Direct labour +Direct Expenses= ------.
- 2. Internal Rate of Return is the rate of discount at which the NPV of a project is ----
- 3. Term loans carry ----- covenants.
- 4. ------ is a type of merger of firms engaged in various stages of production and distribution of the same product.
- 5. Lease rentals are ------ % deductible for computing Income Tax.
- 6. The term trading on equity is generally used for ------ financial leverage.
- 7. MM Approach is similar to ------ approach.
- 8. ------ in an organized market where shares, bonds and other securities issued by Corporates are listed and traded.

# **Q.4.** Match the following:

1.	Telephone charges	a)	Process Costing
2.	Road transport	b)	Apex Body of Rural Credit
	-		System.
3.	Gross Working Capital	c)	Cash Management technique
4.	NABARD	d)	Increases in proportion to
			output.
5.	Total variable cost	e)	Trade references
6.	Lock-box System	f)	Total current assets
7.	Credit Analysis	g)	Operating Costing
8.	Oil refinery	h)	Semi-variable overheads

# PART B

# Answer any three questions

# (3 x 16 = 48 marks)

**Q.5.a** An analysis of the Cost Records. reveals the following information:

		Variable Cost (% of sales)	<b>Fixed Cost</b> (Rs.)
Direc	t materials	32.8	
Direc	t labour	28.4	
Facto	ry overheads	12.6	1,89,900
Distr	ibution overheads	4.1	58,400
Gene	ral administration overheads	1.1	66,700
Budg	eted sales are Rs.18,50,000		
You	are required to determine—		
(i)	Break-even sales value		
(ii)	Profit at the budgeted sales value	e	
(iii)	Profit, if actual sales		
	drop by 10% and		
	increase by 5% from the budg	geted sales.	
<b>b</b> ) Mo	nthly demand for Component S	4000 units	
Set-u	p cost per batch	Rs.600	
Cost	of manufacturing per unit	Rs.100	
Rate	of interest	10% p.a.	
	• • • • •		

Determine economic batch quantity.

c) State briefly the objectives of Uniform Costing.

- **Q.6. a)** Profit Maximisation is the principal objective of financial management— Do you agree with this statement? Give reasons supporting your view.
  - b) Equity share of A Ltd. is quoted in the market at Rs.20 currently. The company pays a dividend of Re 1 per share and the investor's market expects a growth rate of 5% per year.
    - (i) Compute the company's equity cost of capital.

(ii) If the anticipated growth rate is 6% p.a , calculate the expected market price per share.

(iii) If the company's cost of capital is 8% and the anticipated growth rate is 5% p.a., calculate the indicated market price, assuming that the dividend of Re 1 per share is to be maintained.

- **Q.7.** Write short notes on any <u>four</u> from the following:
  - a) Escalation clause in a contract
  - b) Operating Lease
  - c) Working Capital Cycle
  - d) Cash Flow vs. Funds Flow Analysis.
  - e) Preference shares as source of Long-term finance.
  - f) Project Appraisal
  - g) Stock Exchange
  - h) Machine Hour Rate
- **Q.8.** Using the Risk Adjusted Discount Rate Method, calculate the NPV of the following independent Investment proposals.

Project Name	Capital outlay	Estimated economic life	Annual cash inflow
	(Rs.)	(year)	(Rs.)
Х	200,000	5	60,000
Y	240,000	5	80,000
Z	440,000	5	150,000

The company has selected the following Risk Adjusted discount rates, shown along with the respective P.V factors for an annuity of Re.1:

Project	<b>Risk Adjusted</b>	P.V factor
Name	<b>Discount Rate</b>	(%)
Х	12	3.6048
Y	14	3.4331
Ζ	16	3.2743

**Q.9.** The capital structure of Asha Ltd. is as under:

	(Rs.in lakhs)
Equity shares of Rs.100 each	40
Retained earnings	20
8% Preference shares	24
7% Debentures	16
	<u>100</u>

The company earns 12% on its total capital. The tax rate applicable is 35%. The company requires a sum of Rs.50 lacs for which following options are available to it:

- (i) Issue of 40,000 equity shares at a premium of Rs.25 per share.
- (ii) Issue of 9% preference shares.
- (iii) Issue of 8% debentures.

It is estimated that the P/E ratios in the cases of equity share, preference share and debenture financing would be 22.5, 18.5 and 15.2.

a) Calculate the earning per share and the Market price per share under each option.

b) Which financing option do you recommend?

#### PART C

**Q.10.** Growmore Ltd. wants to install a new machine in the place of an existing old one which has become obsolete. The company has made extensive enquiries and, from the replies received, short-listed two offers. The two models differ in cost, output and anticipated net revenue. The estimated life of both the machines is five years. There will be no salvage value at the end of the fifth year. Further details are as follows:

Machine	Cost	Anticipated After-tax Cash Flow				
		Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
А	25	_	5	20	14	6
В	40	10	14	16	17	8

The Company's cut-off rate is 16%.

- a) You are required to make an appraisal of the two offers and advise the firm by using the Net Present Value Method.
- b) Also calculate----
  - (i) The Pay-back Period
  - (ii) Benefit-Cost Ratio.
  - (iii) Internal Rate of Return.
- c) Offer your critical comments on the results arrived at by using the four bases of Investment Appraisal at a) & b) above.

Note: Present value of Re.1

End of Year	16%	18%	20%
1	0.862	0.847	0.833
2	0.743	0.718	0.694
3	0.641	0.609	0.579
4	0.552	0.516	0.482
5	0.476	0.437	0.402