BOARD OF STUDIES

THE INSTITUTE OF CHARTERED ACCOUNTANTS OF INDIA

PROFESSIONAL COMPETENCE COURSE

GROUP – II

Model Test Paper – BOS/PCC/ Cost Accounting and Financial Management – 1/2007

Time : 3 hours *Maximum Marks : 100*

PAPER – 4 : COST ACCOUNTING AND FINANCIAL MANAGEMENT

PART – I : COST ACCOUNTING (50 marks)

1. Give brief answers to any five of the following:

(a) Are fixed costs per unit variable in nature? If yes, why?

(b) Amongst the four alternatives provided to you below, which would be the most appropriate basis for apportioning machinery insurance costs to cost centres within a factory and why?

1. The number of machines in each cost centre
2. The floor area occupied by the machinery in each cost centre
3. The value of the machinery in each cost centre
4. The operating hours of the machinery in each cost centre.

(c)- Department L production overheads are absorbed using a direct labour hour rate. Budgeted production overheads for the department were Rs. 480,000 and the actual labour hours were 100,000. Actual production overheads amounted to Rs. 516,000. Based on the above data, and assuming that the production overheads were over absorbed by Rs. 24,000, what was the overhead absorption rate per labour hour?

(d) When material prices fluctuate widely, what is the most suitable method (from amongst the Weighted Average, LIFO or FIFO) for pricing material?

(e) "A favourable production volume variance may indicate that the capacity of the plant has not been estimated properly". Do you agree with the statement ? If yes, why?

(f) What do you understand by over absorbed overheads? *(5×2=10 Marks)*

2. The following Bill of Material relates to a Product called 'ABAB' , the maximum capacity per month of which is 200 Units .

Material description	*Std Quantity*	*Std Cost*
A	1 Kg	Rs 2000 per Kg
B	10 Nos	Rs 200 per Unit
C	2 Litres	Rs 50 per litre

Budgeted fixed expenses per month equal Rs 1.5 Lakhs. The budgeted selling price of the product is Rs 6000/. Other variable costs (apart from Raw Material) are budgeted at Rs 1000 per Unit. In a particular month 175 Units of this product are produced and sold . The fixed costs incurred in the concerned month were Rs 2 Lakhs whereas the variable cost expenditure was Rs 900 per Unit . You are required to :

(a) Compute the Standard Cost of the product.

(b) Calculate production volume and overhead expense variances. *(15 Marks)*

3. (a) XYZ manufactures a special type of a 'Metal Ingot', the raw material of which needs to be heated and brought to the desired shape in a Foundry Shop, subsequent to which it is worked upon in the Machine Shop on a Lathe and a Drill machine. The product is finally assembled in the Assembly Shop.Details of manufacturing expenses are as follows:

	Foundry Shop	Machine Shop	Assembly Shop	Total
Direct wages	Rs. 10,000	Rs. 50,000	Rs. 10,000	Rs. 70,000
Works overhead	5,000	90,000	10,000	1,05,000

The Product cost of manufacturing one unit of a 'Metal Ingot' was prepared by the company as follows:

Material:		Rs. 16
Direct wages:		
Foundry shop	Rs 2	
Machine shop	4	
Assembly shop	2	8
Works overhead (150% of Direct wages)		12
Total cost		36

Recommend a better way to arrive at the Product Cost. *(10 Marks)*

(b) Discuss briefly the characteristics of Job, Batch and Contract Costing. *(6 Marks)*

4. Distinguish between (ANY THREE)

   (a) Cost center and Cost unit

   (b) Period cost and Product cost.

   (c) Fixed Budget and Functional Budget

   (d) Absorption Costing and Marginal Costing *(3×3 = 9 Marks)*

PART – II : FINANCIAL MANAGEMENT (50 marks)

(Answer all questions)

5. Answer any five of the following, supporting the same with reasoning/working notes:

   (a) You are considering borrowing Rs.10,000 for 3 years at an annual interest rate of 6%. The loan agreement calls for 3 equal payments, to be paid at the end of each of the next 3 years. (Payments include both principal and interest.) Calculate the annual payment that will fully pay off (amortize) the loan.

   (b) Theta Company will pay a Rs. 4 dividend next year on its common shares, which is currently selling at Rs.100 per share. What is the market's required return on this investment if the dividend is expected to grow at 5% forever?

   (c) Interest rates and bond prices sometimes move in the same direction, sometimes in opposite directions. Is the statement true or false?

   (d) Risk varies inversely with profitability. Is the statement true or false?

   (e) EOQ is the order quantity that minimizes total carrying costs over our planning horizon. Is the statement true or false?

   (f) Determine a firm's total asset turnover (TAT) if its net profit margin (NPM) is 5 percent, total assets are Rs. 80,00,000 and ROI is 8 percent. *(5×2=10 Marks)*

6. A company is considering its working capital investment and financial policies for the next year. Estimated fixed assets and current liabilities for the next year are Rs. 2.60 crores and Rs. 2.34 crores respectively. Estimated sales and EBIT depend on current assets investment, particularly inventories and book-debts. The financial controller of the company is examining the following alternative Working Capital Policies:

(Rs. Crores)

Working Capital Policy	*Investment in Current Assets*	*Estimated Sales*	*EBIT*
Conservative	4.50	12.30	1.23
Moderate	3.90	11.50	1.15
Aggressive	2.60	10.00	1.00

After evaluating the working capital policy, the Financial Controller has advised the adoption of the moderate working capital policy. The company is now examining the use of long-term and short-term borrowings for financing its assets. The company will use Rs. 2.50 crores of the equity funds. The corporate tax rate is 35%. The company is considering the following debt alternatives.

(Rs. Crores)

Financing Policy	*Short-term Debt*	*Long-term Debt*
Conservative	0.54	1.12
Moderate	1.00	0.66
Aggressive	1.50	0.16
Interest rate-Average	12%	16%

You are required to calculate the following:

(A) Working Capital Investment for each policy:

(a) Net Working Capital position

(b) Rate of Return

(c) Current ratio.

(B) Financing for each policy:

(a) Net Working Capital position

(b) Rate of Return on Shareholders equity

(c) Current ratio. *(15 Marks)*

7. (a) A Company earns a profit of Rs.3,00,000 per annum after meeting its interest liability of Rs.1,20,000 on 12% debentures. The tax rate is 50%. The number of equity shares of Rs.10 each are 80,000 and the retained earnings amount to Rs.12,00,000. The company proposes to take up an expansion scheme for which a sum of Rs.4,00,000 is required. It is anticipated that after expansion, the company will be able to achieve the same return on investment as at present. The funds required for expansion can be raised either through debt at the rate of 12% or by issuing equity shares at par.

You are required to:

(i) Compute the Earnings Per Share (EPS), if:

– the additional funds were raised as debt

– the additional funds were raised by issue of equity shares.

(ii) Advise the company as to which source of finance is preferable.

(b) A company has to make a choice between two projects namely A and B. The initial capital outlay of two Projects are Rs.1,35,000 and Rs.2,40,000 respectively for A and B. There will be no scrap value at the end of the life of both the projects. The opportunity cost of capital of the company is 16%. The annual incomes are as under:

Year	*Project A*	*Project B*	*Discounting factor @ 16%*
1	-	60,000	0.862
2	30,000	84,000	0.743
3	1,32,000	96,000	0.641
4	84,000	1,02,000	0.552
5	84,000	90,000	0.476

You are required to calculate for each project:

(i) Discounted payback period

(ii) Profitability index

(iii) Net present value. *(8+8=16 Marks)*

8. Write short notes on any three of the following:

(a) Basic Functions of Financial Management

(b) Effect of Inflation on Inventory Management

(c) Advantages of Debt Securitisation

(d) Limitations of Financial Ratios. *(3×3=9 Marks)*