

Test Series: February, 2012

MOCK TEST PAPER – 1
IPCC/PCC: GROUP – I/GROUP-II
PAPER – 3/4: COST ACCOUNTING AND FINANCIAL MANAGEMENT
PART – I : COST ACCOUNTING

All questions are compulsory.

Working notes should form part of the answer.

Time Allowed – 1 ½ Hours

Maximum Marks – 100

1. Answer the following:
 - (i) Define the terms 'cost centre' and 'cost unit'.
 - (ii) What is Economic Order Quantity?
 - (iii) What is the relevance of escalation clause provided in the contracts?
 - (iv) Define Explicit costs. How is it different from implicit costs?
 - (v) What is notional rent of a factory building? Give one reason why it may be included in cost accounts. (2 x 5 =10 Marks)
2. (a) A manufacturer of Durgapur purchased three Chemicals A, B and C from Howrah. The invoice gave the following information:

	₹
Chemical A : 3,000 kg @ ₹ 4.20 per kg. 3,000 kg @ ₹ 4.20 per kg.	12,600
Chemical B: 5,000 kg @ ₹ 3.80 per kg. 5,000 kg @ ₹ 3.80 per kg.	19,000
Chemical C: 2,000 kg. @ ₹ 4.75 per kg. 2,000 kg. @ ₹ 4.75 per kg.	9,500
Sales Tax	2,055
Railway Freight	<u>1,000</u>
Total Cost	<u>44,155</u>

A shortage of 200 kg in Chemical A, of 280 kg. in Chemical B and of 100 kg. in Chemical C was noticed due to breakages. At Durgapur, the manufacturer paid Octroi duty @ ₹ 0.10 per kg. He also paid cartage ₹ 22 for Chemical A, ₹ 63.12 for Chemical B and ₹ 31.80 for Chemical C. Calculate the stock rate that you would suggest for pricing issue of chemicals assuming a provision of 5% towards further deterioration.

- (b) India Chemicals Co. purchases salt and processes it into more-refined products such as caustic soda, chlorine, and PVC (Polyvinyl chloride). During the month of

April, 2011, Inorganic Chemicals purchased salt for ₹ 10,00,000. Conversion cost of ₹ 15,00,000 were incurred upto the split-off point, at which time two saleable products were produced: Caustic soda and chlorine. Chlorine can be further processed into PVC. The April production and sales information are as follows:

	Production	Sales	Sales Price per Ton
Caustic Soda	1,200 tons	1,200 tons	₹ 1,250
Chlorine	800 tons		
PVC	500 tons	500 tons	₹ 5,000

All 800 tons of chlorine were further processed, at an incremental cost of ₹ 5,00,000 to yield 500 tons of PVC. There were no byproducts or scrap from this further processing of chlorine. There were no beginning or ending inventories of caustic soda, chlorine or PVC in April.

There is an active market for chlorine. India Chemicals Co. could have sold all its April production of chlorine at ₹ 1,875 a ton.

Required:

- (i) Calculate, how the joint costs of ₹ 25,00,000 would be allocated between Caustic soda and Chlorine under each of the following methods:
 - (1) sales value at split off;
 - (2) physical measure (tone); and
 - (3) estimated net realizable value.
 - (ii) What is the gross margin percentage of Caustic soda and PVC under the three methods cited in requirement (i)? (6 + 10 = 16 Marks)
3. (a) A contractor, who prepares his account on 31st December each year, commenced a contract on 1st April 2011. The costing records concerning the said contract reveal the following information on 31st December, 2011;

	₹
Materials charged to site	2,58,100
Labour engaged	5,60,500
Foremen's salary	79,300

Plants costing ₹ 2,60,000 had been on site for 146 days. Their working life is estimated at 7 years and their final scrap value at ₹ 15,000. A supervisor, who is paid ₹ 4,000 p.m. has devoted approximately three-fourths of his time to this contract. The administrative and other expenses amount to ₹ 1,40,000. Materials in hand at site on 31st December, 2011 cost ₹ 25,400. Some of the material costing ₹ 4,500 was found unsuitable and was sold for ₹ 4,000 and a part of the plant

costing ₹ 5,500 (on 31.12.11) unsuited to the contract was sold at a profit of ₹ 1,000.

The contract price was ₹ 22,00,000 but it was accepted by the contractor for ₹ 20,00,000. On 31st December, 2011, two thirds of the contract was completed. Architect's certificate had been issued covering 50% of the contract price and ₹ 7,50,000 had so far been paid on account. Prepare contract account and state how much profit or loss should be included in the financial accounts to 31st December, 2011. Workings should be clearly given. Depreciation is charged on time basis.

Also prepare the Contractee's account and show how these accounts should appear in the Balance Sheet as on 31st December, 2011.

- (b) Calculate the earnings of a worker under (i) Halsey Plan and (ii) Rowan Plan from the following particulars:

- (1) Hourly rate of wages guaranteed 0.50 paise per hour.
- (2) Standard time for producing one dozen articles – 3 hours.
- (3) Actual time taken by the worker to produce 20 dozen articles – 48 hours.

(12 + 4 = 16 Marks)

4. The standard labour complement and the actual labour complement engaged in a week for a job are as follows:

	Skilled Workers	Semi-skilled Workers	Un Skilled workers
Standard number of workers in the gang	32	12	6
Standard wage rate per hour (₹)	3	2	1
Actual number of workers employed in the gang during the week	28	18	4
Actual wages rate per hour (₹)	4	3	2

During the 40 hours working week the gang produced 1,800 standard labour hours of work.

Calculate:

- (i) Total labour cost variance;
- (ii) Labour efficiency variance;
- (iii) Labour mix variance; and
- (iv) Rate of wages variance.

(8 Marks)

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MOCK TEST PAPER – 1
IPCC/PCC: GROUP – II/GROUP – II
PAPER – 3/4: COST ACCOUNTING AND FINANCIAL MANAGEMENT
PART – II : FINANCIAL MANAGEMENT

All questions are compulsory.

Working notes should form part of the answer.

Time Allowed – 1 ½ Hours

Maximum Marks – 50

1. Answer the following:
 - (i) Explain the limitations of profit maximization objective of Financial Management.
 - (ii) Explain the need of debt-service coverage ratio.
 - (iii) Discuss the features of deep discount bonds.
 - (iv) Explain the concept of closed and open- ended lease.
 - (v) The demand for a certain product is random. It has been estimated that the monthly demand of the product has a normal distribution with a mean of 390 units. The unit price of product is ₹25. Ordering cost is ₹40 per order and inventory carrying cost is estimated to be 35 per cent per year. You are required to calculate the Economic Order Quantity (EOQ). (5 × 2 = 10 Marks)
2. The financial statement and operating results of Alpha Limited revealed the following position as on 31st March, 2010:

— Equity share capital (₹10 fully paid share)	₹ 20,00,000
— Working capital	₹ 6,00,000
— Bank overdraft	₹ 1,00,000
— Current ratio	2.5 : 1
— Liquidity ratio	1.5 : 1
— Proprietary ratio (Net fixed assets/Proprietary fund)	.75 : 1
— Cost of sales	₹ 14,40,000
— Debtors velocity	2 months
— Stock turnover based on cost of sales	4 times
— Gross profit ratio	20% of sales
— Net profit ratio	15% of sales

Closing stock was 25% higher than the opening stock. There were also free reserves brought forward from earlier years. Current assets include stock, debtors and cash only. The current liabilities expect bank overdraft treated as creditors.

Expenses include depreciation of ₹90,000.

The following information was collected from the records for the year ended 31st March, 2011:

- Total sales for the year were 20% higher as compared to previous year.
- Balances as on 31st March, 2011 were : Stock ₹5,20,000, Creditors ₹4,15,000, Debtors ₹4,95,000 and Cash balance ₹3,10,000.
- Percentage of Gross profit on turnover has gone up from 20% to 25% and ratio of net profit to sales from 15% to 16%.
- A portion of Fixed assets was very old (book values ₹1,80,000) disposed for ₹90,000. (No depreciations to be provided on this item).
- Long-term investments were purchased for ₹2,96,600.
- Bank overdraft fully discharged.
- Percentage of depreciation to Fixed assets to be provided at the rate in the previous year.

Required:

- (i) Prepare Balance Sheet as on 31st March, 2010 and 31st March, 2011.
- (ii) Prepare the fund flow statement for the year ended 31st March, 2011.

(8 + 8 = 16 Marks)

3. (a) The following details of Beta Limited for the year ended 31st March, 2011 are given below:

Operating leverage	1.4
Combined leverage	2.8
Fixed Cost (Excluding interest)	₹ 2.04 lakhs
Sales	₹ 30.00 lakhs
12% Debentures of ₹100 each	₹ 21.25 lakhs
Equity Share Capital of ₹10 each	₹ 17.00 lakhs
Income tax rate	30 per cent

Required:

- (i) Calculate Financial leverage
- (ii) Calculate P/V ratio and Earning per Share (EPS)

- (iii) If the company belongs to an industry, whose assets turnover is 1.5, does it have a high or low assets leverage?
- (iv) At what level of sales the Earning before Tax (EBT) of the company will be equal to zero?
- (b) Theta Limited is considering investing in a project. The expected original investment in the project will be ₹2,00,000, the life of project will be 5 year with no salvage value. The expected net cash inflows after depreciation but before tax during the life of the project will be as following:

Year	1	2	3	4	5
₹	85,000	1,00,000	80,000	80,000	40,000

The project will be depreciated at the rate of 20% on original cost. The company is subjected to 30% tax rate.

Required:

- (i) Calculate pay back period and average rate of return (ARR)
- (ii) Calculate net present value and net present value index, if cost of capital is 10%.
- (iii) Calculate internal rate of return.

Note: The P.V. factors are:

Year	P.V. at 10%	P.V. at 37%	P.V. at 38%	P.V. at 40%
1	.909	.730	.725	.714
2	.826	.533	.525	.510
3	.751	.389	.381	.364
4	.683	.284	.276	.260
5	.621	.207	.200	.186

(8 + 7 = 15 Marks)

4. Answer the following:

- (a) A person is required to pay four equal annual payments of ₹4,000 each in his Deposit account that pays 10 per cent interest per year. Find out the future value of annuity at the end of 4 years.
- (b) From the information given below calculate the amount of Fixed assets and Proprietor's fund.

Ratio of fixed assets to proprietors fund = 0.75

Net Working Capital = ₹6,00,000

- (c) Z Ltd.'s operating income (before interest and tax) is ₹9,00,000. The firm's cost of debt is 10 per cent and currently firm employs ₹30,00,000 of debt. The overall cost of capital of firm is 12 per cent.

You are required to calculate the cost of equity.

(3 × 3 = 9 Marks)