Test Series: October, 2019

MOCK TEST PAPER 1

INTERMEDIATE (IPC): GROUP – I

PAPER – 3: COST ACCOUNTING AND FINANCIAL MANAGEMENT

Answers are to be given only in English except in the case of the candidates who have opted for Hindi medium. If a candidate has not opted for Hindi medium his/ her answers in Hindi will not be valued.

*Question No. **1** is compulsory.*

*Attempt any **five** questions from the remaining **six** questions.*

Working notes should form part of the answer.

Time Allowed – 3 Hours **Maximum Marks – 100**

1. Answer the following:

(a) C.T. Ltd. manufactures and sells a single product X whose selling price is Rs.100 per unit and the variable cost is Rs.60 per unit.

(i) If the Fixed Costs for this year are Rs. 24,00,000 and the annual sales are at 60% margin of safety, calculate the rate of net return on sales, assuming an income tax level of 40%.

(ii) For the next year, it is proposed to add another product line Y whose selling price would be Rs. 150 per unit and the variable cost Rs. 100 per unit. The total fixed costs are estimated at Rs. 28,00,000. The sales mix of X : Y would be 5 : 3. Compute the break- even sales in units for both the products.

(b) A Ltd. manufactures a product X which requires two raw materials A and B in a ratio of 1:4. The sales department has estimated a demand of 5,00,000 units for the product for the year. To produce one unit of finished product, 4 units of material A is required.

Stock position at the beginning of the year is as below:

Product- X	12,000 units
Material A	24,000 units
Material B	52,000 units

To place an order the company has to spend Rs.15,000. The company is financing its working capital using a bank cash credit @13% p.a.

Product X is sold at Rs.1,040 per unit. Material A and B are purchased at Rs.150 and Rs.200 respectively.

Required:

Compute economic order quantity (EOQ):

(i) If purchase order for the both materials is placed separately.

(ii) If purchase order for the both materials is not placed separately.

(c) Mr. B will require Rs. 50 lakhs after 10 years from now. He wants to ascertain an amount to be invested in a fund which pays interest @ 10% per annum.

Following options are available to him:

(i) to make annual payment into the fund at the end of each year.

(ii) to invest a lumpsum amount in the fund at the end of the year.

(iii) to make annual payment into the fund in the beginning of each year.

Find out the amount to be invested under each of the options given above.

Factors are as under:

FVIF/CVF (10%, 10) = 2.594

FVIFA/CVFA (10%,10) = 15.937

PVIF/PVF (I0%, 10) = 0.386

PVIFA/PVFA (10%,10) = 6.145

(d) S Ltd. has furnished the following information for the year ending 31st March, 2019:

	Rs.
Net profit before taxation	20,78,000
Depreciation charged to P&L Account	8,00,000
Profit on sale of plant & machinery	2,20,000
Increase in debtors	2,40,000
Decrease in stock	6,80,000
Decrease in other current liabilities	1,50,000
Increase in creditors	20,000
Purchases of plant and machinery	23,20,000
Proceeds from issue of share capital	15,00,000
Dividend paid	7,20,000
Income-tax paid	7,28,000

You are required to calculate cash from operating activities. ***(4 × 5 = 20 Marks)***

2. (a) V Ltd. produces and markets a very popular product called 'X'. The company is interested in presenting its budget for the second quarter of 2019.

The following information are made available for this purpose:

(i) It expects to sell 50,000 bags of 'X' during the second quarter of 2019 at the selling price of Rs. 900 per bag.

(ii) Each bag of 'X' requires 2.5 kgs. of a raw – material called 'Y' and 7.5 kgs. of raw – material called 'Z'.

(iii) Stock levels are planned as follows:

Particulars	**Beginning of Quarter**	**End of Quarter**
Finished Bags of 'X' (Nos.)	15,000	11,000
Raw – Material 'Y' (Kgs.)	32,000	26,000
Raw – Material 'Z' (Kgs.)	57,000	47,000
Empty Bag (Nos.)	37,000	28,000

(iv) 'Y' cost Rs.120 per Kg., 'Z' costs Rs.20 per Kg. and 'Empty Bag' costs Rs.80 each.

(v) It requires 9 minutes of direct labour to produce and fill one bag of 'X'. Labour cost is Rs.50 per hour.

(vi) Variable manufacturing costs are Rs.45 per bag. Fixed manufacturing costs Rs.30,00,000 per quarter.

(vii) Variable selling and administration expenses are 5% of sales and fixed administration and selling expenses are Rs.2,50,000 per quarter.

Required

(i) Prepare a production budget for the said quarter.

(ii) Prepare a raw – material purchase budget for 'Y', 'Z' and 'Empty Bags' for the said quarter in quantity as well as in rupees.

(iii) Compute the budgeted variable cost to produce one bag of 'X'. ***(8 Marks)***

(b) You are given the following information:

(i) Estimated monthly Sales are as follows:

	Rs.		Rs.
January	1,00,000	June	80,000
February	1,20,000	July	1,00,000
March	1,40,000	August	80,000
April	80,000	September	60,000
May	60,000	October	1,00,000

(ii) Wages and Salaries are estimated to be payable as follows:

	Rs		Rs.
April	**9,000**	**July**	**10,000**
May	8,000	August	9,000
June	10,000	September	9,000

(iii) Of the sales, 80% is on credit and 20% for cash. 75% of the credit sales are collected within one month and the balance in two months. There are no bad debt losses.

(iv) Purchases amount to 80% of sales and are made and paid for in the month preceding the sales.

(v) The firm has taken a loan of Rs.1,20,000. Interest @ 10% p.a. has to be paid quarterly in January, April and so on.

(vi) The firm is to make payment of tax of Rs. 5,000 in July, 2019.

(vii) The firm had a cash balance of Rs. 20,000 on 1st April, 2019 which is the minimum desired level of cash balance. Any cash surplus/deficit above/below this level is made up by temporary investments/liquidation of temporary investments or temporary borrowings at the end of each month (interest on these to be ignored).

Required

Prepare monthly cash budgets for six months beginning from April, 2019 on the basis of the above information. ***(8 Marks)***

3. (a) V Ltd. manufactures luggage trolleys for airports. The factory, in which the company undertakes all of its production, has two production departments- 'Fabrication' and 'Assembly', and two service departments- 'Stores' and 'Maintenance'.

The following information have been extracted from the company's budget for the financial year ended 31st March, 2019:

Particulars	Rs.
Allocated Overhead Costs	
Fabrication Department	15,52,000
Assembly Department	7,44,000
Stores Department	2,36,000
Maintenance Department	1,96,000
Other Overheads	
Factory rent	15,28,000
Factory building insurance	1,72,000
Plant & machinery insurance	1,96,000
Plant & Machinery Depreciation	2,65,000
Subsidy for staffs' canteen	4,48,000

Direct Costs	Rs.	Rs.
Fabrication Department:		
Material	63,26,000	
Labour	8,62,000	71,88,000
Assembly Department:		
Material	1,42,000	
Labour	13,06,000	14,48,000

The following additional information is also provided:

	Fabrication Department	Assembly Department	Stores Department	Maintenance Department
Floor area (square meters)	24,000	10,000	2,500	3,500
Value of plant & machinery (Rs.)	16,50,000	7,50,000	75,000	1,75,000
No. of stores requisitions	3,600	1,400	---	---
Maintenance hours required	2,800	2,300	400	---
No. of employees	120	80	38	12
Machine hours	30,00,000	60,000		
Labour hours	70,000	26,00,000		

Required:

(i) Prepare a table showing the distribution of overhead costs of the two service departments to the two production departments using step method; and

(ii) Calculate the most appropriate overhead recovery rate for each department. ***(8 Marks)***

(b) H Ltd. is considering a new product line to supplement its range of products. It is anticipated that the new product line will involve cash investments of Rs.70,00,000 at time 0 and Rs.1,00,00,000 in year 1. After-tax cash inflows of Rs. 25,00,000 are expected in year 2, Rs.30,00,000 in year 3, Rs.35,00,000 in year 4 and Rs.40,00,000 each year thereafter through year 10. Although the product line might be viable after year 10, the company prefers to be conservative and end all calculations at that time.

(i) If the required rate of return is 15 per cent, what is the net present value of the project? Is it acceptable?

(ii) What would be the case if the required rate of return were 10 per cent?

(iii) What is its internal rate of return?

(vi) What is the project's payback period? ***(8 Marks)***

4. (a) In a manufacturing company the standard units of production of the year were fixed at 1,20,000 units and overhead expenditures were estimated to be:

Fixed	Rs. 12,00,000;	Variable	Rs. 6,00,000;
Semi-Variable	Rs. 1,80,000		

Actual production during the April, 2019 of the year was 8,000 units. Each month has 20 working days.

During the month there was one public holiday. The actual overheads amounted to:

Fixed	Rs. 1,10,000;	Variable	Rs. 48,000
Semi-variable	Rs. 19,200		

Semi-variable charges are considered to include 60 per cent expenses of fixed nature and 40 per cent of variable character.

Calculate the followings:

(i) Overhead Cost Variance

(ii) Fixed Overhead Cost Variance

(iii) Variable Overhead Cost Variance

(iv) Fixed Overhead Volume Variance

(v) Fixed Overhead Expenditure Variance ***(8 Marks)***

(b) ABC Ltd. has the following capital structure which is considered to be optimum as on 31st March, 2019:

	(Rs.)
14% Debentures	30,00,000
11% Preference shares	10,00,000
Equity Shares (10,000 shares)	1,60,00,000
	2,00,00,000

The company share has a market price of Rs. 236. Next year dividend per share is 50% of year 2019 EPS. The following is the trend of EPS for the preceding 10 years which is expected to continue in future.

Year	EPS (Rs.)	Year	EPS Rs.)
2010	10.00	2015	16.10
2011	11.00	2016	17.70
2012	12.10	2017	19.50
2013	13.30	2018	21.50
2014	14.60	2019	23.60

The company issued new debentures carrying 16% rate of interest and the current market price of debenture is Rs. 96.

Preference share Rs. 9.20 (with annual dividend of Rs. 1.1 per share) were also issued. The company is in 50% tax bracket.

(A) Calculate after tax:

(i) Cost of new debt

(ii) Cost of new preference shares

(iii) New equity share (consuming new equity from retained earnings)

(B) Calculate marginal cost of capital when no new shares are issued.

(C) How much can be spent for capital investment before new ordinary shares must be sold. Assuming that retained earnings for next year's investment are 50 percent of 2019.

(D) What will the marginal cost of capital when the funds exceeds the amount calculated in (C), assuming new equity is issued at Rs. 200 per share? ***(8 Marks)***

5. (a) Discuss the essential features of a good cost accounting system.

(b) Explain the difference between Cost Control and Control Reduction.

(c) Discuss the Inter relationship between investment, financing and dividend decisions.

(d) What is debt securitisation? Explain the basics of debt securitisation process. ***(4 x 4 =16 Marks)***

6. (a) In an Oil Mill, four products emerge from a refining process. The total cost of input during the quarter ending March 2019 is Rs.22,20,000. The output, sales and additional processing costs are as under:

Products	Output in Litres	Additional processing cost after split off (Rs.)	Sales value (Rs.)
A	8,000	6,45,000	25,87,500
B	4,000	1,35,000	2,25,000
C	2,000	–	90,000
D	4,000	22,500	6,75,000

In case these products were disposed-off at the split off point that is before further processing, the selling price per litre would have been:

A (Rs.)	B (Rs.)	C (Rs.)	D (Rs.)
225.00	90.00	45.00	112.50

Prepare a statement of profitability based on:

(i) If the products are sold after further processing is carried out in the mill.

(ii) If they are sold at the split off point. ***(8 Marks)***

(b) B LLP. has the following balance sheet and income statement information:

Balance Sheet as on March 31st, 2019

Liabilities	(Rs.)	Assets	(Rs.)
Share Capital	80,00,000	Net Fixed Assets	1,00,00,000
Term Loan	60,00,000	Inventories	45,00,000
Retained Earnings	35,00,000	Trade Receivables	40,50,000
Trade Payables	15,00,000	Cash & Bank	4,50,000
	1,90,00,000		1,90,00,000

Income Statement for the year ending March 31st, 2019

	(Rs.)
Sales	34,00,000
Operating expenses (including Rs. 6,00,000 depreciation)	12,00,000
EBIT	22,00,000
Less: Interest	6,00,000
Earnings before tax	16,00,000
Less: Taxes	5,60,000
Net Earnings (EAT)	10,40,000

(i) Determine the degree of operating, financial and combined leverages at the current sales level, if all operating expenses, other than depreciation, are variable costs.

(ii) If total assets remain at the same level, but sales units (i) increase by 20 percent and (ii) decrease by 20 percent, what will be the earnings after taxes at the new sales level?

(8 Marks)

7. Answer any **four** of the following:

(a) Define Controllable Cost and Uncontrollable Cost.

(b) Distinguish between Job and Batch costing.

(c) Write short note on Factoring and its advantages.

(d) Discuss financial break-even and EBIT-EPS indifference analysis.

(e) (i) Define 'Present Value' and 'Perpetuity'.

(ii) Explain the term Equivalent units used in process industries. ***(4 x 4 =16 Marks)***