

**MOCK TEST PAPER**  
**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) M Ltd. has an annual fixed cost of Rs. 98,50,000. In the year 20X8-X9, sales amounted to Rs.7,80,60,000 as compared to Rs.5,93,10,000 in the preceding year 20X7-X8. Profit in the year 20X8-X9 is Rs.37,50,000 more than that in 20X7-X8.

Required:

- (i) Calculate Break-even sales of the company;
- (ii) Determine profit/ loss on a forecasted sales volume of Rs.8,20,00,000.
- (iii) If there is a reduction in selling price by 10% in the financial year 20X8-X9 and company desires to earn the same amount of profit as in 20X7-X8, compute the required sales amount?
- (b) Arnav Motors Ltd. manufactures pistons used in car engines. As per the study conducted by the Auto Parts Manufacturers Association, there will be a demand of 80 million pistons in the coming year. Arnav Motors Ltd. is expected to have a market share of 1.15% of the total market demand of the pistons in the coming year. It is estimated that it costs Rs.1.50 as inventory holding cost per piston per month and that the set-up cost per run of piston manufacture is Rs. 3,500.
- (i) Determine the optimum run size for piston manufacturing?
- (ii) Assuming that the company has a policy of manufacturing 40,000 pistons per run, compute how much extra costs the company would be incurring as compared to the optimum run suggested in (i) above?
- (c) Mr. K has taken a personal loan from a commercial bank of Rs.3,00,000 for one year at 18% p.a. It has to pay the loan amount in equal monthly installments (EMIs). Compute the EMI amount to be paid per month and the total interest that would be paid upto the end of sixth month.
- (d) Based on the following particulars show various assets and liabilities of T Ltd.

Fixed assets turnover ratio	8 times
Capital turnover ratio	2 times
Inventory Turnover	8 times
Receivable turnover	4 times
Payable turnover	6 times
GP Ratio	25%

Gross profit during the year amounts to Rs.8,00,000. There is no long-term loan or overdraft. Reserve and surplus amount to Rs.2,00,000. Ending inventory of the year is Rs. 20,000 above the beginning inventory.

**(4 × 5 = 20 Marks)**

2. (a) Aditya Agro Ltd. mixes powdered ingredients in two different processes to produce one product. The output of Process- I becomes the input of Process-II and the output of Process-II is transferred to the Packing department.

From the information given below, you are required to prepare accounts for Process-I, Process-II and Abnormal loss/ gain A/c to record the transactions for the month of February 20X9.

**Process-I**

Input:	
Material A	6,000 kilograms at Rs. 50 per kilogram
Material B	4,000 kilograms at Rs. 100 per kilogram
Labour	430 hours at Rs. 50 per hour
Normal loss	5% of inputs. Scrap are disposed off at Rs. 16 per kilogram
Output	9,200 kilograms.

There is no work- in- process at the beginning or end of the month.

**Process-II**

Input:	
Material C	6,600 kilograms at Rs. 125 per kilogram
Material D	4,200 kilograms at Rs. 75 per kilogram
Flavouring Essence	Rs. 3,300
Labour	370 hours at Rs.50 per hour
Normal loss	5% of inputs with no disposal value
Output	18,000 kilograms.

There is no work-in-process at the beginning of the month but 1,000 kilograms in process at the end of the month and estimated to be only 50% complete so far as labour and overhead were concerned.

Overhead of Rs.92,000 incurred to be absorbed on the basis of labour hours. **(8 Marks)**

- (b) XYZ Ltd. Is considering three financial plans for which the key information is as below:

(i) Total investment to be raised Rs.4,00,000.

(ii) Plans of Financing Proportion:

Plans	Equity	Debt	Preference shares
A	100%	-	-
B	50%	50%	-
C	50%	-	50%

(iii) Cost of debt 8%

Cost of preference shares 8%

(iv) TaxRate 50%

(v) Equity shares of the face value of Rs.10 each will be issued at a premium of Rs.10 per share.

(vi) Expected EBIT is Rs.1,60,000

Determine for each plan:

- (i) Earnings per share (EPS)
- (ii) Financial break-even point.
- (iii) EBIT range among the plans A and C for point of indifference.

**(8 Marks)**

3. (a) The following standards have been set to manufacture a product:

Direct Materials:	(Rs.)
2 units of X at Rs.40 per unit	80.00
3 units of Y at Rs. 30 per unit	90.00
15 units of Z at Rs.10 per unit	150.00
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	320.00
Direct labour 3 hours @ Rs. 55 per hour	165.00
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Total standard prime cost	485.00

The company manufactured and sold 6,000 units of the product during the year 20X9.

Direct material costs were as follows:

12,500 units of X at Rs. 44 per unit.

18,000 units of Y at Rs. 28 per unit.

88,500 units of Z at Rs.12 per unit.

The company worked 17,500 direct labour hours during the year 20X9. For 2,500 of these hours the company paid at Rs. 58 per hour while for the remaining hours the wages were paid at the standard rate.

Required:

Compute the following variances:

Material Price, Material Usage, Material Mix, Material Yield, Labour Rate and Labour Efficiency.

**(8 Marks)**

- (b) A newly formed company has applied to the commercial bank for the first time for financing its working capital requirements. The following information is available about the projections for the current year:

Estimated level of activity: 1,04,000 completed units of production plus 4,000 units of work-in-progress. Based on the above activity, estimated cost per unit is:

Raw material	Rs.80 per unit
Direct wages	Rs.30 per unit
Overheads (exclusive of depreciation)	Rs.60 per unit
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Total cost	Rs.170 per unit
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Selling price	Rs.200 per unit

Raw materials in stock: Average 4 weeks consumption, work-in-progress (assume 50% completion stage in respect of conversion cost) (materials issued at the start of the processing).

Finished goods in stock	8,000 units
Credit allowed by suppliers	Average 4 weeks
Credit allowed to debtors/receivables	Average 8 weeks

Lag in payment of wages

Average  $1 \frac{1}{2}$  weeks

Cash at banks (for smooth operation) is expected to be Rs.25,000

Assume that production is carried on evenly throughout the year (52 weeks) and wages and overheads accrue similarly. All sales are on credit basis only.

Find out Net Working Capital required.

**(8 Marks)**

4. (a) From the details furnished below you are required to compute a comprehensive machine-hour rate:

Original purchase price of the machine (subject to depreciation at 10% per annum on original cost)	Rs. 6,48,000
Normal working hours for the month (The machine works for only 75% of normal capacity)	200 hours
Wages to Machine-man	Rs. 400 per day (of 8 hours)
Wages to Helper (machine attendant)	Rs. 275 per day (of 8 hours)
Power cost for the month for the time worked	Rs. 65,000
Supervision charges apportioned for the machine centre for the month	Rs. 18,000
Electricity & Lighting for the month	Rs. 9,500
Repairs & maintenance (machine) including Consumable stores per month	Rs. 17,500
Insurance of Plant & Building (apportioned) for the year	Rs. 18,250
Other general expense per annum	Rs. 17,500

The workers are paid a fixed Dearness allowance of Rs. 4,575 per month. Production bonus payable to workers in terms of an award is equal to 33.33% of basic wages and dearness allowance. Add 10% of the basic wage and dearness allowance against leave wages and holidays with pay to arrive at a comprehensive labour-wage for debit to production. (8 Marks)

- (b) G Limited has the following capital structure, which it considers to be optimal:

Capital Structure	Weightage (in percentage)
Debt	25
Preference Shares	15
Equity Shares	60
	100

G Limited's expected net income this year is Rs.34,285.72, its established dividend payout ratio is 30 per cent, its tax rate is 40 per cent, and investors expect earnings and dividends to grow at a constant rate of 9 per cent in the future. It paid a dividend of Rs.3.60 per share last year, and its shares are currently sold at a price of Rs.54 per share.

G Limited requires additional funds which it can obtain in the following ways:

- Preference Shares: New preference shares with a dividend of Rs.11 can be sold to the public at a price of Rs.95 per share.
- Debt: Debt can be sold at an interest rate of 12 per cent.

You are required to:

- (i) Determine the cost of each capital structure component; and

- (ii) Compute the weighted average cost of capital (WACC) of G Limited. **(8 Marks)**
5. (a) What is cost plus contract? State its advantages.  
 (b) How apportionment of joint costs upto the point of separation amongst the joint products using market value at the point of separation and net realizable value method is done? Discuss.  
 (c) Define Modified Internal Rate of Return method.  
 (d) Discuss the advantages of raising funds by issue of equity shares. **(4 x 4 =16 Marks)**
6. (a) A transport company has a fleet of three trucks of 10 tonnes capacity each plying in different directions for transport of customer's goods. The trucks run loaded with goods and return empty. The distance travelled, number of trips made, and the load carried per day by each truck are as under:

Truck No.	One way Distance Km	No. of trips per day	Load carried per trip / day tonnes
1	16	4	6
2	40	2	9
3	30	3	12

The analysis of maintenance cost and the total distance travelled during the last two years is as under:

Year	Total distance travelled	Maintenance Cost (Rs.)
1	1,60,200	46,050
2	1,56,700	45,175

The following are the details of expenses for the year under review:

Diesel	Rs. 65 per litre. Each litre gives 4 km per litre of diesel on an average.
Driver's salary	Rs. 24,000 per month
Licence and taxes	Rs. 25,000 per annum per truck
Insurance	Rs. 45,000 per annum for all the three vehicles
Purchase Price per truck	Rs. 30,00,000, Life 10 years. Scrap value at the end of life is Rs. 1,00,000.
Oil and sundries	Rs. 250 per 100 km run.
General Overhead	Rs. 1,15,600 per annum

The vehicles operate 24 days per month on an average.

On the basis of commercial tone-km, you are required to:

- (i) Prepare an Annual Cost Statement covering the fleet of three vehicles.  
 (ii) Calculate the cost per km. run.  
 (iii) Determine the freight rate per tonne km. to yield a profit of 10% on freight. **(8 Marks)**
- (b) You are a financial analyst for B Limited. The director of finance has asked you to analyse two proposed capital investments, Projects X and Y. Each project has a cost of Rs. 10,00,000 and the cost of capital for each project is 12 per cent. The project's expected net cash flows are as follows:

Year	Expected net cash flows	
	Project X (Rs.)	Project Y (Rs.)
0	(10,00,000)	(10,00,000)

1	6,50,000	3,50,000
2	3,00,000	3,50,000
3	3,00,000	3,50,000
4	1,00,000	3,50,000

(i) Calculate each project's payback period, net present value (NPV) and internal rate of return (IRR).

(ii) State which project or projects should be accepted if they are independent? **(8 Marks)**

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

(a) Discuss the effect of overtime payment on productivity.

(b) "Is reconciliation of cost accounts and financial accounts necessary in case of integrated accounting system? Discuss."

(c) Explain the term 'Ploughing back of Profits'.

(d) State the advantage of Electronic Cash Management System.

(e) Distinguish between controllable & uncontrollable costs?

**(4 x 4 =16 Marks)**