Test Series: August 2018

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) Calculate from the following figures:

(i) Efficiency ratio

(ii) Activity ratio and

(iii) Capacity ratio.

Budgeted Production	880 units
Standard Hours per unit	10 hours
Actual Production	750 units
Actual Working Hours	6,000 hours

(b) You are required to calculate a suggested fare per passenger-km from the following information for a Mini Bus:

(i) Length of route: 30 km

(ii) Purchase price Rs. 4,00,000

(iii) Part of above cost met by loan, annual interest of which is Rs.10,000 p.a.

(iv) Other annual charges: Insurance Rs.15,000, Garage rent Rs.9,000, Road tax Rs.3,000, Repairs & maintenance Rs.15,000, Administrative charges Rs. 5,000.

(v) Running Expenses: Driver & Conductor Rs.5,000 p.m., Repairs/Replacement of tyre-tube Rs.3,600 p.a., Diesel and oil cost per km Rs. 5.

(vi) Effective life of vehicle is estimated at 5 years at the end of which it will have a scrap value of Rs.10,000.

(vii) Mini Bus has 20 seats and is planned to make Six no. two way trips for 25 days/p.m.

(viii) Provide profit @ 20% of total revenue.

(c) A company is considering the use of factoring to manage its trade receivables. It currently has a balance outstanding on trade receivables of Rs.36,00,000 and annual sales revenue of Rs.2,19,00,000. It anticipates that this level of sales revenue and trade receivables will continue for at least the next year. It estimates that the use of the factoring, company will result in a reduction in credit control costs of Rs.5,00,000 per annum.

The factoring company will charge a fee of 2.5% of invoiced sales. It will give an advance of 90% of invoiced sales and charge interest at a rate of 12% per annum.

The company currently finances its accounts receivables with a bank overdraft at an interest rate of 15% per annum.

Required:

(i) Calculate the annual cost of factoring net of credit control cost savings.

(ii) Calculate whether there is a financial benefit from using the factor.

(Assume that there are no bad debts and all sales are on credit)

(d) Calculate cash from operating activities from the following:

Particulars	20X7	20X8
Retained earnings	60,00,000	65,00,000
Trade Receivables	85,00,000	48,00,000
Bills Receivable (B/R)	40,00,000	81,00,000
General Reserve	1,72,00,000	2,07,00,000
Wages outstanding	26,00,000	8,00,000
Salaries prepaid	8,00,000	10,00,000
Goodwill	70,00,000	60,00,000

(4 × 5 = 20 Marks)

2. (a) The annual demand for an item of raw material is 4,000 units and the purchase price is expected to be Rs. 90 per unit. The incremental cost of processing an order is Rs. 135 and the annual cost of storage is estimated to be Rs. 12 per unit. What is the optimal order quantity and total relevant cost of this order quantity?

Suppose that Rs. 135 as estimated to be the incremental cost of processing an order is incorrect and should have been Rs. 80. All other estimates are correct. What is the difference in cost on account of this error?

Assume at the commencement of the period that a supplier offers 4,000 units at a price of Rs. 86. The materials will be delivered immediately and placed in the stores. Assume that the incremental cost of placing the order is zero and original estimate of Rs. 135 for placing an order for the economic batch is correct. Should the order be accepted? **(8 Marks)**

(b) The summarized Balance Sheet of TPA Traders Ltd. for the year ended 31-03-20X8 is given below:

(Rs.in lakhs)

Capital and Liabilities	Amount (Rs.)	Assets		Amount (Rs.)
Equity Share capital (fully paid-up)	1,400	Fixed Asset (at cost)	2,100	
Reserves and surplus	450	Less: Depreciation	250	1,850
Retained earnings	200	Current assets:		
Provision for taxation	100	Stock	250	
Sundry payables	400	Receivables	300	
		Cash & Bank	150	700
	2,550			2,550

The following further particulars are also given for the year

	(in lakhs of rupee)
Sales	1,200
Earnings before interest and tax (EBIT)	300
Net profit after tax (PAT)	200

Calculate the following for the company and explain the significance of each in one or two sentences.

(i)	Current ratio	(v)	Receivables' (Debtor's) Turnover ratio
(ii)	Liquidity ratio	(vi)	Average receivable (debtor's) collection period
(iii)	Profitability ratio	(vii)	Stock Turnover ratio
(iv)	Profitability on fund employed	(viii)	Return on Equity

(8 Marks)

3. (a) Three products X,Y and Z alongwith a byproduct B are obtained again in a crude state which require further processing at a cost of Rs. 5 for X; Rs. 4 for Y; and Rs. 2.50 for Z per unit before sale. The byproduct is however saleable as such to a nearby factory. The selling prices for the three main products and byproduct, assuming they should yield a net margin of 25 percent of cost, are fixed at Rs. 13.75 Rs. 8.75 and Rs. 7.50 and Re. 1.00 respectively – all per unit quantity sold.

During a period, the joint input cost including the material cost was Rs. 90,800 and the respective outputs were:

X	8,000 units
Y	6,000 units
Z	4,000 units
B	1,000 units

By product should be credited to the joint cost and only the net joint costs are to be allocated to the main products.

Calculate the joint cost per unit of each product and the margin available as a percentage on cost.

(8 Marks)

(b) NNSG LLP. is preparing its cash budgets for April, May and June.

Budgeted data are as follows:

	February	March	April	May	June
Sales (units)	15,000	16,000	16,000	17,000	18,000
Production (units)	16,000	16,000	17,000	18,000	19,000
Direct labour and variable overheads incurred (Rs.)	9,60,000	9,60,000	10,20,000	10,80,000	11,20,000
Fixed overheads incurred (excluding depreciation) (Rs.)	4,00,000	4,00,000	4,00,000	4,00,000	4,00,000

The selling price per unit is Rs.200. The purchase price per kg of raw material is Rs.50. Each unit of finished product requires 2 kg of raw materials which are purchased on credit in the month before they are used in production. Suppliers of raw materials are paid one month after purchase.

All sales are on credit. 80% of customers, by sales value, pay one month after sale and the remainder pays two months after sale.

The direct labour cost, variable overheads and fixed overheads are paid in the month in which they are incurred.

Machinery costing Rs.20,00,000 will be delivered in May and paid for in June.

Depreciation, including that on the new machinery, is as follows:

Machinery and equipment- Rs.70,000 per month

Motor vehicles Rs.16,000 per month

The opening cash balance at 1st April is estimated to be Rs.3,00,000.

Required:

Prepare a cash budget for each of the three months April, May and June. **(8 Marks)**

4. (a)

Fixed Cost	Rs. 1,20,000
Variable costs	Rs. 3 per unit
Selling price	Rs. 7 per unit
Output	50,000 units

Determine the profit for each of the following situation with the above data:

(i) with the data above

(ii) with a 10% increase in output & sales.

(iii) with a 10% increase in fixed costs.

(iv) with a 10% increase in variable costs.

(v) with a 10% increase in selling price.

(vi) taking all the above situations. **(8 Marks)**

(b) The cash flows of two mutually exclusive Projects are as under:

	t_0	t_1	t_2	t_3	t_4	t_5	t_6
Project 'P' (Rs.)	(8,00,000)	2,60,000	1,60,000	2,80,000	2,40,000	2,20,000	3,00,000
Project 'J' (Rs.)	(4,00,000)	1,40,000	2,60,000	2,40,000	–	–	–

Required:

(i) Estimate the net present value (NPV) of the Project 'P' and 'J' using 15% as the hurdle rate.

(ii) Estimate the internal rate of return (IRR) of the Project 'P' and 'J'.

(iii) Why there is a conflict in the project choice by using NPV and IRR criterion?

(iv) Which criteria you will use in such a situation? Estimate the value at that criterion. Make a project choice.

The present value interest factor values at different rates of discount are as under:

Rate of discount	t_0	t_1	t_2	t_3	t_4	t_5	t_6
0.15	1.00	0.8696	0.7561	0.6575	0.5718	0.4972	0.4323
0.18	1.00	0.8475	0.7182	0.6086	0.5158	0.4371	0.3704
0.20	1.00	0.8333	0.6944	0.5787	0.4823	0.4019	0.3349
0.24	1.00	0.8065	0.6504	0.5245	0.4230	0.3411	0.2751
0.26	1.00	0.7937	0.6299	0.4999	0.3968	0.3149	0.2499

(8 Marks)

5. (a) Discuss how raw material quantity standard is set?

(b) Differentiate between fixed budget and flexible budget.

(c) State the methods of venture capital financing.

(d) Explain the risks associated with capital structure. **(4 × 4 =16 Marks)**

6. (a) Z. Ltd. uses standard costing system in manufacturing of its single product 'M'. The standard cost per unit of M is as follows:

	Rs.
Direct Material – 2 metres @ Rs. 6 per metre	12.00
Direct labour- 1 hour @ Rs. 4.40 per hour	4.40
Variable overhead- 1 hour @ Rs. 3 per hour	3.00

During July, 2016, 6,000 units of M were produced and the related data are as under:

Direct material acquired- 19,000 metres @ Rs.5.70 per metre.

Material consumed – 12,670 metres.

Direct labour– ? hours @ Rs. ? per hour Rs. 27,950

Variable overheads incurred Rs. 20,475

The variable overhead efficiency variance is Rs. 1,500 adverse. Variable overheads are based on direct labour hours. There was no stock of the material in the beginning

You are required to compute the missing figures and work out all the relevant variances.

(8 Marks)

(b) ABC Limited has the following book value capital structure:

Equity Share Capital (150 million shares, Rs.10 par)	Rs. 1,500 million
Reserves and Surplus	Rs. 2,250 million
10.5% Preference Share Capital (1 million shares, Rs.100 par)	Rs. 100 million
9.5% Debentures (1.5 million debentures, Rs.1,000 par)	Rs. 1,500 million
8.5% Term Loans from Financial Institutions	Rs. 500 million

- The debentures of ABC Limited are redeemable after three years and are quoted at Rs. 981.05 per debenture.
- The current market price per equity share is Rs.60. The prevailing default-risk free interest rate on 10-year GOI Treasury Bonds is 5.5%. The average market risk premium is 8%. The beta of the company is 1.1875.
- The preferred stock of the company is redeemable after 5 years is currently selling at Rs. 98.15 per preference share.

The applicable income tax rate for the company is 35%.

Required:

(i) Calculate weighted average cost of capital of the company using market value weights.

(ii) What would be the marginal cost of capital for ABC Ltd. if it raises Rs.750 million for a new project. The firm plans to have a debt of 20% of the newly raised capital. The beta of new project is 1.4375. The debt capital will be raised through term loans, it will carry interest rate of 9.5% for the first Rs.100 million and 10% for the next Rs. 50 million.

[Note: 1 million = 10,00,000] **(8 Marks)**

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

(a) Differentiate between cost control and cost reduction.

(b) Explain the net realizable value method of apportioning joint costs to by-products.

(c) Discuss the three major decisions taken by a finance manager to maximize the wealth of shareholders.

(d) What are the limitations of ARR method of capital budgeting technique.

(e) (i) Write short note on Material Requisition Note.

(ii) Write short note on cash planning. **(4 × 4 =16 Marks)**