Paper – 8: Cost Accounting & Financial Management

Full Marks: 100 **Time Allowed: 3 Hours**

This paper contains 3 questions. All questions are compulsory, subject to instruction provided against each question. All workings must form part of your answer. Assumptions, if any, must be clearly indicated.

1. Answer all questions: [2×10=20]

(a) If the minimum stock level and average stock level of raw material X are 6,000 and 11,000 units respectively, find out its re-order quantity.

(b) Two workmen, X and Y, produce the same product using the material. X is paid bonus according to Halsey plan, while Y is paid bonus according to Rowan plan. The time allowed to manufacture the product is 100 hours. X has taken 60 hours and Y has taken 80 hours to complete the product. The normal hour rate of wages of workman X is ₹20 per hour. The total earnings of both the workers are same. Calculate the normal hour arte of wages of workman Y.

(c) State the cost units applicable to the following industries:
Cement, Goods Transport, Education, BPO

(d) List the objective of CAS-4.

(e) Compute the Inventory turnover ratio from the following information:
Opening Stock - ₹50,000; Closing Stock - ₹80,000; Material Consumed - ₹3,90,000

(f) Write the conditions when supplementary rates are used.

(g) The average daily sales of a company are ₹5 lac. The company normally keeps cash balance of ₹80000.If the weighted operating cycle of the company is 45 days, what will be the working capital.

(h) Airtel Communications is trying to estimate the first – year operating cash flow (at t=1) for a proposed project. The finance staff has collected the following information:
Projected sales =₹1 crore
Operating costs =₹70 lakhs (not including depreciation)
Depreciation =₹20 lakhs
Interest expense = ₹20 lakhs
The company faces a 40% tax rate. What is the project's operating cash flow for the year (t=1)?

(i) GEMINI LTD. has total assets of ₹60 crore and a Debt/equity ratio of 0.5. Its sales are ₹27 crore and it has total fixed cost of ₹7 crore. If the company's EBIT is ₹6 crore, its tax rate is 40% and the interest rate on debt is 12%, the ROE of GEMINI LTD. would be how much?

(j) What will be the effect on NPV of a one year project if fixed costs are increased from ₹200 to ₹300. When the firm is profit making, pays tax @ 35% and has 12% cost of capital?

2. (Answer any three questions) [3×16=48]

(a)

(i) PC Company purchases a specialized item and the quantity to be purchased is 2,500 pieces at a price of ₹200 per piece. Ordering cost per order is `200 and carrying cost is 2% per year of the inventory cost. Normal lead time is 20 days and safety stock is nil. Assume yearly working days as 250.

I. Calculate the Economic Ordering Quantity.

II. Re-order Inventory Level.

III. If a 2% discount on price is given for order quantity 1,250 pieces or more in a lot, should the company accept the offer of discount? [2+2+4]

(ii) The following details are available in respect of a Consignment of 1,250 kgs. of materials 'X':

- Invoice price-₹20 per kg.
- Excise duty-25% of invoice price.
- Sales Tax-8% on Invoice price including Excise Duty
- Trade discount-10% on Invoice price
- Insurance-1% of aggregate net price
- Delivery charges-₹250
- Cost of containers @₹60 per container for 50 kg. of material. Rebate is allowed @ ₹40 per container if returned within six weeks, which is a normal feature.
- One container load of material was rejected on inspection and not accepted.
- Cost of unloading and handling @ 0.25% of the cost of materials ultimately accepted.

On the basis of above you are required to find out the landed cost per kg. of material 'X'.

[8]

(b)

(i) A company produces a single product in three sizes X, Y and Z. Prepare a statement showing the selling and distribution expenses apportioned over these three sizes, on the bases indicated, and express the total apportioned to each size as:

I. cost per unit sold, and

II. a percentage of sales turnover.

The expenses and bases of apportionment are:

Expenses	Amount (₹)	Basis of apportionment
Sales salaries	20,000	Direct charge
Sales commission	60,000	Sales turnover
Sales office expenses	20,960	Number of orders
Advertising : Specific	2,20,000	Direct charge
General	50,000	Sales turnover
Packing	30,000	Size of product
Delivery expenses	40,000	Size of product
Warehouse expenses	10,000	Size of product
Credit Collection expenses	12,960	Number of orders

Data relating to the three sizes are as follows:

	Total	X	Y	Z
No. of salesmen, all paid same salary	20	8	10	2
Number of orders	1,600	700	800	100
% of specific advertising	100	30	40	30
Number of units sold	8,240	3,440	3,200	1,600
Sales turnover	₹20,00,000	5,80,000	8,00,000	6,20,000
Capacity in cu ft per unit		5	8	17

[5+5]

(ii) Distinguish between "Incentives to indirect workers" and "Indirect incentives to direct workers". [6]

(c)

(i) The production department of factory furnishes the following information for the month of March 2014:

Materials used	₹54,000
Direct wages	₹45,000
Overheads	₹36,000
Labour hours worked	36,000
Hours of machine operation	30,000
For an order executed by the department during a particular period, the relevant information was as under:	
Materials used	₹6,00,000
Direct Wages	₹3,20,000
Labour hours worked	3,200
Machine hours worked	2,400

Calculate the overhead charges chargeable to the job by the following methods:

I. Direct materials cost percentage rate
II. Labour hour rate; and
III. Machine hour rate [6]

(ii) An engineering company produces a standard metallic product. There are three processes - Foundry, Machining and Assembly. 130 tonnes of raw material at ₹500 per tonne were issued to Foundry. The yield at the Foundry is 90% (both standard and actual). The normal and actual yield at the Machining Process is 95%. There is no loss in the Assembly Process. You may consider the losses as occurring at the end of the respective processes. The other details are as follows:

Process	Direct Labour	Overheads
Foundry	200 hours at ₹100 per hour	₹150 per labour hour
Machining	100 hours at ₹50 per hour	₹ 200 per labour hour
Assembly	100 hours at ₹150 per hour	₹100 per labour hour

Prepare a Cost Sheet showing the element wise cost of output and cost per tonne of output. [8]

(iii) State the treatment of Market Research the in the Cost Accounts. [2]

(d)

(i) The details of present output of a manufacturing department are given below:

Average output per week from 160 employees	48,000 units
Saleable value of output	₹6,00,000
Contribution made by output towards fixed expenses and profit	₹2,40,000

The Board of Directors plans to introduce more mechanization into the department at a capital cost of ₹1,60,000. The effect of this will be to reduce the number of employees to 120, and increasing the output per individual employees by 60%.

To provide the necessary incentive to achieve the increased output, the Board intends to offer a 1% increase on the piece work rate of ₹1 per unit for every 2% increase in average individual output achieved.

To sell the increased output, it will be necessary to decrease the selling price by 2%.

Calculate the extra weekly contribution resulting from the proposed change and evaluate for the Board's information, the desirability of introducing the change. [10]

(ii) Explain the methods of disposal of under /over absorbed overheads. [4]

(iii) State the objective of Cost Accounting. [2]

3. (Answer any two questions) **[2×16=32]**

(a)

(i) The following information has been extracted from the records of a Company :

Product cost sheet	**₹/unit**
Raw materials	45
Direct labour	20
Overheads	40
Total	105
Profit	20
Selling price	125

- Raw materials are in stock on an average of two months.
- The materials are in process on an average for 4 weeks. The degree of completion is 50%.
- Finished goods stock on an average is for one month.
- Time lag in payment of wages and overheads is 1 ½ weeks.
- Time lag in receipt of proceeds from debtors is 2 months.
- Credit allowed by suppliers is one month.
- 20% of the output is sold against cash.
- The company expects to keep a Cash balance of ₹1,00,000.
- Take 52 weeks per annum.

The Company is poised for a manufacture of ₹ 1,44,000 units in the year.
You are required to prepare a statement showing the Working Capital requirements of the Company. [8]

(ii) Explain the procedure involved in the 'Forfeiting' Financial Service. [4]

(iii) Write a short note on Foreign Currency Convertible Bonds (FCCBs) [4]

(b)

(i) X Ltd. is foreseeing a growth rate of 14% per annum in the next 2 years. The growth rate is likely to fall to 12 % for the third year and fourth year. After that the growth rate is expected to stabilize at 10% per annum. If the last dividend paid was ₹2.25 per share and the investors' required rate of return is 18%, find out the intrinsic value per share of X Ltd. as of date. You may use the following table:

Years	0	1	2	3	4	5
Discounting Factor at 18%	1	0.85	0.72	0.61	0.52	0.44

[10]

(ii) Explain the main features of SEBI. [6]

(c)

(i) XYZ Ltd. is considering two mutually- exclusive projects. Both require an initial cash outlay ₹10,000 each for machinery and have a life of 5 Years. The Company's required rate of return is 10% and it pays tax at 50%. The projects will be depreciated on a straight-line basis.

The net cash flows (before taxes) expected to be generated by the projects and the present value (PV) factor (at 10%) are as follows:

	Year				
	1	2	3	4	5
	₹	₹	₹	₹	₹
Project 1	4,000	4,000	4,000	4,000	4,000
Project 2	6,000	3,000	2,000	5,000	5,000
PV factor (at 10%)	0.909	0.826	0.751	0.683	0.621

You are required to calculate

I. The Pay Back Period of each project;

II. The NPV and the profitability index of each project. [5+5]

(ii) Write the basic propositions and the assumptions of the MM Approach. [2+4]