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) The following information relating to a type of Raw material is available:

Annual Demand	3,000 units
Unit price	₹20.00
Ordering cost per order	₹20.00
Storage cost 2% p.a.	
Interest rate 8% p.a.	
Lead time Half- month	

Calculate economic order quantity.

(b) What is the basis for cost classification as per Cost Accounting Standard 1?

(c) The extracts from the payroll of Dutta Bros. is as follows:-

Number of employees at the beginning of 2013	140
Number of employees at the end of 2013	210
Number of employees resigned	20
Number of employees discharged	5
Number of employees replaced due to resignation and discharges	20

Calculate the Labour Turnover Rate for the factory by different methods.

(d) Write the two advantages of JIT.

(e) Gross pay ₹10,30,000 (including cost of idle time hours paid to employee ₹35,000); Accommodation provided to employee free of cost [this accommodation is owned by employer, depreciation of accommodation ₹1,05,000, maintenance charges of the accommodation ₹85,000, municipal tax paid for this accommodation ₹3,000], Employer's Contribution to P.F. ₹1,00,000 (including a penalty of ₹2,000 for violation of PF rules), Employee's Contribution to P.F. ₹75,000. Compute the Employee cost.

(f) State the features of Fixed Cost.

(g) Optimistic Ltd has an EPS of ₹90 per share. Its Dividend Payout Ratio is 40%. Its earnings and dividends are expected to grow at 5% per annum. Find out the cost of Equity Capital if its Market Price is ₹360 per share.

(h) T Ltd. requires ₹3 million in cash for meeting its transaction needs over the next 6 months, its planning horizon for liquidity decision. The company currently has the amount in the form of marketable securities. The cash payment will be made evenly over the six month period. T Ltd. earns 12% annual yield on its marketable securities. Conversion and marketable securities into cash entails a fixed cost of ₹1000 per transaction. What will be the optimal conversion size as per Baumol model of cash management?

(i) Consider the following information for Target Ltd.

EBIT	₹1120 Lakhs
PBT	₹320 Lakhs
Fixed Cost	₹700 Lakhs

Calculate the percentage of change in earnings per share, if sales increased by 5%.

(j) A project has an equity beta of 1.2 and is going to be financed by 30% debt and 70% equity. Assume debt beta = 0, R_f= 10% and R_m= 18%. What is the required rate of return?

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

(a)

(i) Calculate the earnings of workers M and N under Straight Piece Rate system and Taylor's Differential Piece Rate system from the following particulars:-
Normal rate per hour - ₹1.80
Standard time per unit 20 seconds
Differentials to be applied are:
80% of the piece rate below the standard;
120% of the piece rate at or above standard.
M produced 1,300 units per day of 8 hours & N -1,500 units per day of 8 hours. [3+3]

(ii) State the term Uniform Costing. [4]

(iii) Mishra Ltd. has gensets and produced its own power Data for power costs are as follows :-

	Production Depts.		Service Depts.	
	X	Y	A	B
Horse Power Hours	10,000	20,000	12,000	8,000
Needed at capacity production	8,000	13,000	7,000	6,000
Used during the month of May				

During the month of May costs for generating power amounted to ₹9,300, of this ₹2,500 was considered to be fixed. Dept A renders service to other Depts. in the ratio of 13:6:1, while B renders service at X & Y in the ratio of 31:3. Given that the direct labour hours in Depts. X and Y are 9900 hours and 1,450 hours respectively, find the power cost per labour hour in each of these two departments. [6]

(b)

(i) Write a note on ABC Analysis. [6]

(ii) The finishing shop of a company employs 60 direct workers. Each worker is paid ₹400 as wages per week of 40 hours. When necessary, overtime is worked up to a maximum of 15 hours per week per worker at time rate plus one-half as premium. The current output on an average is 6 units per man hour which may be regarded as standard output. If bonus scheme is introduced, it is expected that the output will increase to 8 units per man hour. The workers will, if necessary, continue to work overtime up to the specified limit although no premium on incentives will be paid.

The company is considering introduction of either Halsey Scheme or Rowan Scheme of Wage Incentive system. The budgeted weekly output is 19,200 units. The selling price is ₹11 per unit and the direct Material Cost is ₹ 8 per unit. The variable overheads amount to ₹ 0.50 per direct labour hour and the fixed overhead is ₹10,000 per week.

Prepare a Statement to show the effect on the Company's weekly Profit of the proposal to introduce (a) Halsey Scheme, and (b) Rowan Scheme. [5+5]

(c)

(i) Following data is available from the cost records of a company for the month of March 2014:

- Opening stock of job as on 1st March 2014
  Job no. A 990: Direct Material ₹80, Direct Wages ₹150 and Factory Overheads ₹200
  Job no. A 770: Direct Material ₹420, Direct Wages ₹450 and Factory Overheads ₹400
- Direct material issued during the month of February 2014 was:
  Job no A 990 ₹120
  Job no A 770 ₹280
  Job no A 660 ₹225
  Job no A 550 ₹300
- Direct labour details for March 2014 were:

Job no	Hours	Amount (₹)
A 990	400	600
A 770	200	450
A 660	300	675
A 550	100	225

- Factory Overheads are applied to jobs on production according to direct labour hour rate which is ₹2 per hour.
- Factory Overhead incurred in March 2014 were ₹2100.
- Job numbers A 990 & A 770 were completed during the month. They were billed to the customers at a price which included 15% of the price of the job for Selling & Distribution expenses and another 10% of the price for Profit.

Prepare:

(i) Job cost sheet for job number A 770 and A 990 and determine the selling price for the jobs.

(ii) Calculate the value of work in process. [6+4]

(ii) How you treat the following items in Cost Accounting.

I. Cost of Containers Relating to Material Purchased

II. Spoiled Work [3+3]

(d)

(i) Distinguish between Chargeable Expenses and Overheads. [4]

(ii) ABC Limited has received an offer of quantity discounts on its order of materials as - under:

Price per tone ₹	**Tonnes Nos.**
4,800	Less than 50
4,680	50 and less than 100
4,560	100 and less than 200
4,440	200 and less than 300
4,320	300 and above

The annual requirement for the material is 500 tonnes. The ordering cost per order is ₹6,250 and the stock holding cost is estimated at 25% of the material cost per annum.

Required:

I. Compute the most economical purchase level.

II. Compute E.O.Q. If there are no quantity discounts and the price per tonne is ₹ 5,000.

[10+2]

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

(a)

(i) Discuss Stochastic Model of Cash Management. [6]

(ii) The capital structure of Assembly Traders Ltd. as on 31.03.2014 is as follows:

(₹ in crores)

Equity capital(100 lakhs equity shares of ₹10 each)	10
Reserves	2
14% Debentures of ₹100 each	3

For the year ended 31.03.2014 the company has paid equity dividend at 20%. As the company is a market leader with good future, dividend is likely to grow by 5% every year. The equity shares are now treated at ₹80 per share in the stock exchange. Income –tax rate applicable to the company is 50%.

Required:

I. The current weighted cost of capital

II. The company has plans to raise a further ₹5 crores by way of long term loan at 16% interest. When this takes place the market value of the equity shares is expected to fall to ₹50 per share. What will be the new weighted average cost of capital of the company?

[5+5]

(b)

(i) Write a note on Global Depository Receipt (GDR). [6]

(ii) Sarema Company plans to manufacture and sell 400 units of a domestic appliance per month at a price of ₹600 each. The ratio of cost to selling price are as follows:

Raw materials	30%
Packing materials	10%
Direct labour	15%
Direct expense	5%

Fixed overheads are estimated at ₹4,32,000per annum.

The following norms are maintained for inventory management:

Raw materials	30 days
Packing materials	15 days
Finished goods	200 units
Work-in-progress	7 days

Other particulars are given below:

- Credit sales represent 80% of total sales and the dealer enjoys 30 working days credit. Balance 20% is cash sales.
- Creditors allow 21 working days credit for payment.
- Lag in payment of overheads and an expense is 15 working days.
- Cash requirements to be 12% of net working capital.
- Working days in a year are taken as 300 for budgeting purpose.

Prepare a working capital requirement forecast for the budget year [10]

(c)

(i) A company has an old machine having book value zero –which can be sold for ₹50,000.The company is thinking to choose one from following two alternatives:

I. To incur additional cost of ₹10,00,000 to upgrade the old existing machine.

II. To replace old machine with a new machine costing ₹20,00,000 plus installation cost ₹50,000.

Both above proposals envisage useful life to be 5 years with salvage value to be nil. The expected after tax profits for the above alternatives are as under:

Year	Old Existing Machine (₹)	Upgraded Machine (₹)	New Machine (₹)
1	5,00,000	5,50,000	6,00,000
2	5,40,000	5,90,000	6,40,000
3	5,80,000	6,10,000	6,90,000
4	6,20,000	6,50,000	7,40,000
5	6,60,000	7,00,000	8,00,000

The tax rate is 40%. The company follows straight line method of depreciation. Assume cost of capital to be 15%.PVF of 15% for 5 years= 0.870, 0.756, 0.658, 0.572 and 0.497. You are required to advise the company as to which alternative is to be adopted. [6+6]

(ii) State the term Bill Discounting. [4]