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 ordering cost per order is ₹ 20, carrying cost is 10% of average inventory value, purchase cost is ₹ 10 per unit and economic order quantity (EOQ) for the product is 400 units; What will be the expected annual demand for the product?

(b) In a workshop the normal working hours is 8 hours for which ₹450 is paid as wages. However, calculation of wages payable is made on piece rate basis that 30 pieces will be produced per hour. When a worker produces below standard, 90% of the piece rate is paid but when he produces above standard, 110% of piece rate is paid. On a particular day, a worker produces 260 pieces in the allotted time of 8 hours. What will be his earning?

(c) Draw a specimen bin card and appropriately record the following transactions. 01-09-2014 Received from Supplier SW, 80 kg material A, Purchase Price ₹20 per kg. 04-09-2014 Issued to assembly 50 kg. of A at ₹15 per kg vide requisition No. 313.

(d) State the treatment of Bad Debts in Cost record.

(e) Royalty paid on sale ₹20,000, Royalty paid on units produced ₹15,000, hire charges of equipment used for production ₹4,000, Design charges ₹15,000, Software development charges related to production ₹20,000. Compute the direct expenses as per Cas10.

(f) List the sources of collection of Overhead**.**

(g) With the help of following information calculate the Fixed assets and Total Equity.

Equity Share Capital	₹2,00,000
The relevant ratios are as follows:	
Total debt to owner's equity	60%
Fixed assets to owner's equity	50%

(h) Perpetual 15% debentures of ₹1,000 are sold at a premium of 10% with no floatation costs. Taking corporate tax rate at 35%.Then will be the after-tax cost of capital?

(i) The current market price of an equity share of a company is ₹ 90. The current dividend per share is ₹ 4.50. In case the dividends are expected to grow at the rate of 9%, then what will be the cost of equity capital?

(j) Ascertain the compound interest of an amount of ₹60,000 at 6% compounded semi annually for 5 years.

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

(a)

(i) ABC Limited uses a small casting in one of its finished products. The castings are purchased from a foundry. ABC Limited purchases 54,000 casting per year at a cost of ₹800 per casting.

The castings are used evenly throughout the year in production process on a 360 day per year basis. The company estimates that it costs ₹9,000 to place a single purchase order and about ₹300 to carry one casting in inventory for a year. The carrying costs result from the need to keep the castings in carefully controlled temperature and humidity conditions, and from the high cost of insurance.

Delivery from the foundry generally takes 6 days, but it can take as much as 10 days. The days of delivery time and percentage of their occurrence are shown in the following table-

Delivery Time (days)	6	7	8	9	10
Percentage of occurrence	75	10	5	5	5

I. Compute the Economic Order Quantity.

II. Assume that the company is willing to take a 15% risk of being out of a stock. What would be the safety stock and the Re-Order point?

III. Assume that the company is willing to take a 5% risk of being out of stock. What would be the safety stock and Re-Order point?

IV. Refer to the original data. Assume that using process re-engineering the company reduces its cost of placing a purchase of order to only ₹600. In addition, the company estimates that when the waste and in efficiency caused by inventories are considered, the true cost of carrying a unit in stock is ₹720 per year. (a) Compute new EOQ and (b) How frequently would the company be placing an order, as compared to the old purchasing policy? [2+2+2+4=10]

(ii) State the accounting treatment of idle time wages in cost accounts. [3]

(iii) Explain Perpetual Inventory System. [3]

(b)

(i) The following is an extract of stores ledger of a particular item of stock with incomplete information for September 2014. You are required to fill in the rate column of issues correct to two decimal places. Also fill in the values under the 'Balance column' wherever indicated with a "?". Identify the method of stock issue followed by the company. How would you treat the value of the shortages on 30th September in Cost Accounts?

Date	Receipts		Issues		Balance	
September 2014	Quantity (Kg)	Rate (₹/Kg)	Quantity (Kg)	Rate (₹/Kg)	Quantity (Kg)	Value (₹)
1					50,000	1,25,000
7	5,000	2.4				
10			30,000			62,000
15			20,000			
20	15,000	2.6				
25	10,000	2.5				
29			20,000			

30 shortage-abnormal loss			200			?
30 shortage-abnormal loss			400			?
31					9,400	?

[8]

(ii) ABC Ltd. company having 25 different types of automatic machine, furnishes you the following data for 2013-2014 in respect of machine B:

I.	Cost of machine	₹50,000
	Life-10 years	Scrap value is nil
II.	Overhead expenses are:	
	Factory rent	₹50,00 p.a
	Heating & lighting	₹40,000
	Supervision	₹1,50,000 p.a
	Reserve equipment of machine B	₹6,000 p.a
	Area of the factory	80,000 sq.ft.
	Area occupied by machine B	3,000 sq.ft.
III.	Wages of operator is ₹24 per day of 8 hours including all fringe benefits. He attends to one machine when it is under set up and two machines while under operation.	
IV.	Estimated production hours	3,600 p.a.
	Estimated set up time	400 hrs. p.a.
	Power 0.5 per hour	

Prepare a schedule of comprehensive machine hour rate and find the cost of the following jobs:

	Job 1002	Job 1008
Set up time (hrs.)	80	40
Operation time (hrs.)	130	160

[6+2]

(c)
(i) A factory has three production departments A, B and C and also two service departments 'X' and 'Y'. The primary distribution of the estimated overheads in the factory has just been completed. These details and the quantum of service rendered by the service departments, to the other departments are given below:

	A	B	C	X	Y
Primary distribution(₹)	2,40,000	2,10,000	2,50,000	1,40,000	96,000
Service rendered by					
Dept 'X'	30%	20%	35%	-	15%
Dept 'Y'	25%	40%	25%	10%	-

Prepare a statement showing the distribution of service dept. overheads to the production departments, by the simultaneous equation method. [5]

(ii) Distinguish between Bin Card and Stores Ledger. [5]

(iii) In a factory guaranteed wages at the rate of ₹1.80 per hour are paid in a 50 hour week. By time and motion study it is estimated that to manufacture one unit of a particular product 20 minutes are taken, the time allowed is increased by 25%. During the week A produced 180 units of the product. Calculate his wages under the following method:

I. Time rate.
II. Piece rate with a guaranteed weekly wages.
III. Halsey premium bonus.
IV. Rowan premium Bonus. [$1^1/_2$x4=6]

(d)
(i) In a factory the expenses of factory are charged on a fixed percentage basis on wages and office overhead expenses are calculated on the basis of percentage of works cost.

	I Order (₹)	II Order (₹)
Material	12,500	18,000
Wages	10,000	14,000
Selling price	44,850	61,880
Percentage of profit on cost	15%	12%

Find the rate of Factory OH and Office OH. [8]

(ii) State the various causes of Labour Turnover. [4]

(iii) List the advantages of Just-in-Time. [4]

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

(a)
(i) A dealer, having annual sales of ₹50 lakhs, extends 30 days credit period to its debtors. The variable cost is estimated at 80% of sales and fixed costs are ₹6,00,000.
The dealer intends to change the credit policy for which the following information is given:

Credit Policy	Average Collection	Annual Sales
A	45	56
B	60	60
C	75	62

Rate of Return (Pre-tax) required on investment is 20% [Consider 365 days a year]
You are required to-
Assess the most profitable credit policy with the help of incremental approach. [Calculations must be restricted to two decimal places]. [10]

(ii) Distinguish between Funds Flow Statement and Cash Flow Statement. [6]

(b)
(i) From the following information, prepare the Balance Sheet.

Net Profit after Interest, Tax and Preference Dividend — ₹2,22,000
Tax Rate —50%
18% Preference Share Capital — ?
15% Debentures — ?
Return on Capital Employed —50%
Return on Shareholder's funds —60%
Return on Equity Shareholders' Funds —74%
Current Ratio —2:1
Net Fixed Assets ₹9,00,000 [10]

(ii) List the functions of finance manager. [6]

(c)
(i) The capital structure of J Ltd. is as under:

	₹
Equity shares @ ₹10 each	100,00,000
9% preference shares @ ₹100 each	30,00,000
14% Debentures @ ₹100 each	70,00,000
The market price of these securities are:	
Equity shares	35 per share
Preference shares	120 per share
Debentures	110 per debenture

Other information are:
- Equity shares have a floatation cost of ₹5 per share. The next year's expected dividend is ₹3 with annual growth of 5%. The company pays all earnings in the form of dividends.
- Preference Shares are redeemable at a premium of 10%, have 2% floatation cost and 10 year maturity.
- Debentures are redeemable at par, have 4% floatation and 10 per year maturity.
- Corporate tax rate is 30%.

You are required to calculate the weighted average cost of capital using (i) book value weights and (ii) market value weights. [8]

(ii) Explain how the combined effects of operating and financial leverages provide the risk profile of an organization. [4]

(iii) Write a short note on Commercial Paper in India. [4]