PAPER – 8: COST ACCOUNTING & FINANCIAL MANAGEMENT

The following table lists the learning objectives and the verbs that appear in the syllabus learning aims and examination questions:

	Learning objectives	Verbs used	Definition
LEVEL B	KNOWLEDGE What you are expected to know	List	Make a list of
		State	Express, fully or clearly, the details/facts
		Define	Give the exact meaning of
	COMPREHENSION What you are expected to understand	Describe	Communicate the key features of
		Distinguish	Highlight the differences between
		Explain	Make clear or intelligible/ state the meaning or purpose of
		Identity	Recognize, establish or select after consideration
		Illustrate	Use an example to describe or explain something
	APPLICATION How you are expected to apply your knowledge	Apply	Put to practical use
		Calculate	Ascertain or reckon mathematically
		Demonstrate	Prove with certainty or exhibit by practical means
		Prepare	Make or get ready for use
		Reconcile	Make or prove consistent/ compatible
		Solve	Find an answer to
		Tabulate	Arrange in a table
	ANALYSIS How you are expected to analyse the detail of what you have learned	Analyse	Examine in detail the structure of
		Categorise	Place into a defined class or division
		Compare and contrast	Show the similarities and/or differences between
		Construct	Build up or compile
		Prioritise	Place in order of priority or sequence for action
		Produce	Create or bring into existence

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) Enumerate the various methods of Time booking.

(b) A concern producing a single product estimates the following expenses for a production period.

Particulars	₹
Direct Material	68,750
Direct Labour	68,750
Direct Expenses	6,875
Overhead Expenses	2,88,750

Estimate the overhead recovery rate based on prime cost.

(c) A, B, C and D are products produced by a company. Power is supplied to these production units from the in-house power generator. Cost of power generated for a certain period was ₹1,00,000. Additionally, the committed cost of standby power shop utilities was ₹25,000. The sales value of A, B, C and D were equal and the units produced were in the ratio 1:2:2:3. What amount of power cost will be part of cost of production for each of A, B, C and D? One unit of power is consumed per unit of production of A, B, C &D

(d) Products X, Y and Z are manufactured by XYZ Company. Special permit charges of ₹12,00,000 are paid for X and renewable every 4 years. How will the permit charges be treated in Cost Accounts?

(e) Calculate the total wages earned by a workman for a working day of 8 hours under Rowan plan:

- Standard production per hour 110 units
- Actual production of the day 1,100 units
- Wages rate per hour ₹ 30

(f) Calculate the direct expenses as per CAS-10 from the following information: Royalty paid on sales: ₹1,25,000; Royalty paid on production: ₹1,00,000; Design charges ₹26,000; Machine shop expenses ₹45,000; Software development charges related to production: ₹55,000.

(g) Cost of debt is 9% after tax. Cost of equity is 12% at zero leverage and it keeps increasing as leverage grows. Calculate the weighted average cost of capital at 60% debt proportion under the Net Operating Income Approach.

(h) Estimate the operating leverage from the following data:

Sales	₹1,00,000
Variable Costs	75%
Fixed Costs	₹18,000

(i) Z Ltd. Is a manufacturing company having asset turnover ratio of 2 and debt- asset ratio of 0.60 for the year ended 31st March, 2014. If its net profit margin is 5%, calculate the Return on Equity (ROE) of the company.

(j) Cactus Limited paid a dividend of ₹ 10 per share for 2014-15. The company follows a fixed dividend payout ratio of 60%. The company earns a return of 20% on its investment. The cost of capital to the company is 12%. Calculate the expected market price of its share, using the Walter Model.

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

(a)

(i) Singh Limited has received an offer of quantity discount on its order of materials as under:

Price per tone	Tones number
₹ 9,600	Less than 50
₹ 9,360	50 and less than 100
₹ 9,120	100 and less than 200
₹ 8,880	200 and less than 300
₹ 8,640	300 and above

The annual requirement for the material is 500 tonnes. The ordering cost per order is ₹12,500 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 EOQ if there are no quantity discounts and the price per tonne is ₹10,500.

[4+2=6]

(ii) Gross pay ₹12,80,000 (including cost of idle time hours paid to employee ₹85,000); Accommodation provided to employee free of cost [this accommodation is owned by employer, depreciation of accommodation ₹2,00,000, maintenance charges of the accommodation ₹1,00,000, municipal tax paid for this accommodation ₹5,000], 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. [6]

(iii) State Explicit costs. How is it different from implicit costs? [4]

(b)

(i) XYZ Ltd. manufactures four products A, B, C and D. whose data are given below:

	A	B	C	D
Direct Materials (₹)	3,000	6,000	9,000	18,000

Direct Labour (₹)	1,500	3,000	4,500	9,000
Direct Labour Hours	50	100	150	300
Machine Hours	30	15	10	5

Your are required to prepare a statement showing the allocation of factory overheads (Which amount to ₹1,08,000) using the basis of allocation as under:

(I) Direct Material Cost

(II) Direct Labour Cost

(III) Direct Labour Hours

(IV) Machine Hours

Out of these four bases of allocation, which you prefer and why? [2+2+2+2+2]

(ii) The Budgeted annual production of a company is 1,20,000 units, each unit requiring 2½ hours at an hourly wage rate of ₹ 15. Currently the average efficiency of the production workers is only 60%. The management has a scheme to raise this to 75%. The scheme involves realigning the machinery and intensive training of the production workers, at a onetime cost of ₹ 10 lakhs. The scheme also proposes to raise the wage rate to ₹ 16 to ensure the full co-operation of workers. Calculate the scheme and state whether it can be accepted.

[4+2]

(c)

(i) Stocks are issued at a standard price and the following transactions occurred for a specific material:

1st June	Opening Stock	10 tonnes at ₹240 per ton
4th June	Purchased	5 tonnes at ₹260 per ton
5th June	Issued	3 tons
12th June	Issued	4 tons
13thJune	Purchased	3 tons at ₹250 per ton
19thJune	Issued	4 tons
26thJune	Issued	3 tons
30thJune	Purchased	4 tons at ₹280 per ton
31stJune	Issued	3 tons.

The debit balance of price variation on 1st June was ₹20. Show the stock account for the material for the month of June, indicating how would you deal with the difference in material price variance, when preparing the Profit and Loss Account for the month. [8]

(ii) A manufacturing unit produces two products A and B. The following information is furnished:

Particulars	Product A	Product B
Units produced (Qty)	20,000	15,000
Units sold (Qty)	15,000	12,000
Machine hours utilized	10,000	5,000
Design charges	21,000	24,000
Software development	20,000	30,000

Royalty paid on sales ₹54,000 [@₹2 per unit sold, for the products]; Royalty paid on units produced ₹35,000 [@Re.1 per unit purchased, for both the products], Hire charges of equipment used in manufacturing process of product A only ₹5,000, Compute the direct expenses as per CAS-10. [6]

(iii) State the objective of CAS-2 and CAS-8. [1+1]

(d)

(i) A factory incurred the following expenditure during the year 2013:

		₹
Direct material consumed		15,00,000
Manufacturing Wages		10,00,000
Manufacturing overhead:		
Fixed	4,00,000	
Variable	3,50,000	7,50,000
		32,50,000

In the year 2014, following changes are expected in production and cost of production.

(I) Production will increase due to recruitment of 50% more workers in the factory.
(II) Overall efficiency will decline by 10% on account of recruitment of new workers.
(III) There will be an increase of 15% in Fixed overhead and 70% in Variable overhead.
(IV) The cost of direct material will be decreased by 5%.
(V) The company desire to earn a profit of 10% on selling price.

Ascertain the cost of production and selling price. [8]

(ii) List out the advantages of Cost control. [4]

(iii) Discuss the treatment of overtime wages in Cost Accounts. [4]

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

(a)

(i) Pioneer Technology Ltd. is foreseeing a growth rate of 12% per annum in the next 2 years. The growth rate is likely to fall to 10% for the third year and fourth year. After that the growth rate is expected to stabilize at 8% per annum. If the last dividend paid was ₹1.50 per share and the investors' required rate of return is 16%, what would be the intrinsic value per equity share of Pioneer Technology Ltd. as of date?

Note: You may use the following table:

Years	0	1	2	3	4	5
P.V Interest factors at 16%	1.00	0.86	0.74	0.64	0.55	0.48

[10]

(ii) The financial highlights of AMTEK LTD. for the year 2013 – 2014 are as given under:

EBIT	₹830 crore
Depreciation	₹6 core
Effective Tax rate	30%
EPS	₹4.00

Book value	₹30 per share
Number of Outstanding shares	33 crore
D/E ratio	1.5:1

Required:

(I) Calculate degree of financial leverage.

(II) What is the Financial Break- even Point of Amtek Ltd.

(III) What should be the impact of EPS if the EBIT is increased by 5%. [3+2+1]

(b)

(i) ABC Limited has made plans for the year 2013-2014. It is estimated that the Company will employ total assets of ₹ 25,00,000; 30% of assets being financed by debt at an interest cost of 9%p.a. The direct cost for the year are estimated at ₹ 15,00,000 and all other operating expenses are estimated at ₹ 2,40,000. The sales revenue is estimated at ₹ 22,50,000. Tax rate is assumed to be 50%. Required to calculate:

(I) Net profit margin

(II) Return on assets

(III) Assets turnover and

(IV) Return on equity. [2.5x4=10]

(ii) The annual turnover of AOULAKH Limited is ₹ 12 million of which 80% is on credit. Debtors are allowed one month to clear off the dues. ALLBANK Factors Ltd. (a factor company) is willing to advance 90% of the bill raise on credit for a fee of 2% a month plus a commission of 3% on the total amount of debts. Aoulakh Ltd. as a result of this arrangement is likely to save ₹43,200 annually in management costs and avoid bad debts at 1% on the credit sales. A scheduled bank has come forward to make an advance equal to 90% of the debts at an interest rate of 12% p.a. However its processing fee will be at 2% on the debts. Should the company avail of the factoring service or the offer of the bank? Give reasons. [6]

(c)

(i) From the following figures, prepare a statement showing the changes in the working capital and fund flow statement during the year 2014:-

Assets	Dec.31,2013	Dec.31,2014
Fixed Assets (net) ₹	5,10,000	6,20,000
Investment	30,000	80,000
Current Assets	2,40,000	3,75,000
Discount on debentures	10,000	5,000
	7,90,000	10,80,000
Liabilities		
Equity share capital	3,00,000	3,50,000
Preference share capital	2,00,000	1,00,000
Debentures	1,00,000	2,00,000
Reserves	1,10,000	2,70,000
Provision for doubtful debts	10,000	15,000
Current liabilities	70,000	1,45,000

	7,90,000	10,80,000

You are informed that during the year:

- ✓ A machine costing ₹ 70,000 book value ₹ 40,000 was disposed of for ₹ 25,000.
- ✓ Preference share redemption was carried out at a premium of 5% and
- ✓ Dividend at 10% was paid on equity share for the year 2013.

Further:

- ➢ The provision for depreciation stood at ₹ 1,50,000 on 31.12.13 and at ₹ 1,90,000 on 31.12.14; and
- ➢ Stock which was valued at ₹ 90,000 as on 31.12.13; was written up to its cost, ₹ 1,00,000 for preparing Profit and Loss account for the year 2014. [3+5]

(ii) Write short note on Inflation and financial management. [5]

(iii) State the importance of Cost of Capital. [3]