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) A manufacturer has to supply his customer 600 units of his product per year. Storage is not allowed and the inventory carrying cost amounts to 0.60 per unit per year. The set-up cost per run is ₹80. Calculate the minimum average yearly cost.

(b) B & Co. has recorded the following data in the two most recent periods:

Total cost of production (₹)	Volume of production (units)
14,600	800
19,400	1,200

What is the best estimate of the firm's fixed costs per period?

(c) The following data are available in respect of material X for the year ended 31st March. 2015

Opening stock	₹90,000
Purchase during the year	₹2,70,000
Closing stock	₹1,10,000

Calculate (i) Inventory turnover ratio: and (ii) the number of days for which the average inventory is held.

(d) The actual machine hours worked in June' 2015, is for 35,000 units and the predetermined overhead recovery is @ ₹3 per unit, when actual overhead is ₹1,57,500, then what will be the outcome?

(e) A worker has completed his job within 35 hours instead of 40 standard hours. What will be the earnings under rowan bonus plan of the worker, if the wages rate per hour is ₹36?

(f) Write two objectives of CAS-4.

(g) MN Ltd. has earnings before interest and taxes of ₹36 crores. The company has 7% debentures of ₹72 crores. Cost of equity is 12.5%. Ignore taxes. Estimate the overall cost of Capital?

(h) R Ltd. earns ₹8 per share has capitalization rate of 10% and has a return on investment at the rate of 18%. According to Walter's Model, calculate the price per share at 28% dividend payout ratio.

(i) Write the two assumptions of MM approach.

(j) Given

	Last year	Current year
Sales unit	2,000	2,800
Selling price per unit	₹10	₹10
EPS	₹9.60	₹38.40

Calculate the Degree of Combined Leverage?

2. Answer any three questions from a, b, c and d [3×16=48]

(a) (i) A company uses an old method of machining a part manufactured for sale. The estimates of operating details for the year 2013-14 are as under:
No. of parts to be manufactured and sold 30,000
Raw materials required per part: 10 kg. @ ₹ 2 kg.
Average wage rate per worker : ₹ 40 per day of 8 hrs.
Average labour efficiency 60%.
Standard time required to manufacture one part: 2 hrs.
Overhead rate ₹ 10 per clock hour.
Material handling expenses - 2% of the value of raw materials.

The company has a suggestion box scheme and an award equivalent to three months' saving in labour cost is passed on to the employee whose suggestion is accepted. In response to this scheme, a suggestion has been received from an employee to use a special Jig in the manufacture of the aforesaid part. The cost of the Jig which has life of one year is ₹ 3,000 and the use of the Jig will reduce the standard time by 12 minutes.

Required:

(i) Compute the amount of award payable to the employee who has given the suggestion

(ii) Prepare a statement showing the annual cost of production before and after the implementation of the suggestion to use the Jig and indicate the annual savings.

(iii) State the assumptions on which your calculations are based. [3+4+1=8]

2.

(a) (ii) A machine was purchased on January 1, 2014, for ₹5 lakhs. The total cost of all machinery inclusive of the new machine was ₹ 75 lakhs. The following further particulars are available:

Expected life of the machine 10 years.
Scrap value at the end of ten years ₹ 5,000

Repair and maintenance for the machine during the year ₹ 2,000. Expected number of working hours of the machine per year, 4,000 hours. Insurance premium annually for all the machines ₹ 4,500.

Electricity consumption for the machine per hour (@ 75 paise per unit) 25 units.
Area occupied by the machine 100 sq. ft.
Area occupied by other machine 1,500 sq. ft.
Rent per month of the department ₹ 800.

Lighting charges for 20 points for the whole department, out of which three points are for the machine ₹ 120 per month.
Compute the machine hour rate for the new machine on the basis of the data given above. [8]

2. (b) (i) Illustrate scrap. How do you treat scrap in Cost Accounts? [2+3]

2. (b) (ii)
M/s. Sun & Moon Company Ltd. is experiencing high labour turnover in recent years. Management of the company would like you to submit a statement on the loss suffered by the company due to such labour turnover. Following facts are available from the records:

Sales ₹800 lakhs, Direct Materials ₹200 lakhs, Direct Labour ₹48 lakhs on 4,80,000 labour hours, other variable expenses ₹80 lakhs, Fixed Cost ₹90 lakhs.

Direct Labour hours include 10,000 Labour hours spent on trainees and replacement, only 50% of which were productive.

Further during the year 15,000 Labour hours of potential work could not be availed of, because of delayed replacement. Cost incurred due to separation and replacement amounted to ₹2 lakhs.

With these information, you are required to prepare a statement showing actual profit against profit which would have been realised had there been no labour turnover. [11]

2. (c) (i)
The books of Excellent Chemicals Limited reveal the following data regarding imported chemicals used in the manufacture of their products during 2014-15:

Chemicals	Quantity imported (kg.)	Rate (in U.S.$ per kg.)	Exchange Rate
P	3,000	3.00	1 U.S. $ = ₹ 32.00
Q	4,500	2.40	
R	5,000	4.00	

Import duty paid was 25% of invoice value for chemicals P and Q and 40% for chemical R. Insurance was paid @ 2.5% on invoice value and a sum of ₹ 75,000 was incurred towards freight and clearing charges. Stores overhead applied was 5% on the total purchase cost of materials. During the year 80% of the materials imported were issued to production. Assuming 4% allowance is provided to cover loss, ascertain (i) total cost of materials and (ii) value of closing stock of each type of chemicals.

What is the cost of each material charged to production?

Also prepare a statement showing (a) the quantity of material issued, (b) storage loss, and (c) closing stock of each type of chemicals. [4½+3+1½+3=12]

2. (c) (ii) Discuss the advantages of Cost Accounting. [4]

2. (d) (i)
A manufacturing unit produces two products M and N. The following information is furnished:

Particulars	Product M	Product N
Units produced (Qty)	20,000	15,000
Units Sold (Qty)	15,000	12,000
Machine Hours utilised	10,000	5,000
Design charges	15,000	28,000
Software development charges	14,000	26,000

Royalty paid on sales ₹ 54,000 [@ ₹ 2 per unit sold, for both the products]; Royalty paid on units produced ₹ 35,000 [@ ₹ 1 per unit purchased, for both the products], Hire charges of equipment used in manufacturing process of Product M only ₹ 15,000, Compute the Direct Expenses. [6]

2. (d) (ii) State the term Just-in-Time (JIT) and list out its advantages. [5]

2. (d) (iii)
Classify the following overhead items according to function:

(i) Drawing office salaries, (ii) Rent of warehouse, (iii) Remuneration of legal advice, (iv) Depreciation of delivery van, (v) Salary of Production Manager, (vi) Uniforms of sanitary workers, (vii) Secondary packing with the name of the company, (viii) Establishment expenses, (ix) Depreciation of patterns and dies, (x) Wages of normal idle time. [5]

3. Answer any two questions from a, b and c. [2×16=32]

(a) (i) Write a short-note on GDR (Global Depository Receipt). [4]

3. (a) (ii)
A manufacturing company is planning to install either of the following two machines which are mutually exclusive. The details of their purchase price and Operating costs are as given below:

	Machine I ₹	Machine II ₹
Purchase price including cost of installation	1,00,000	80,000
Operating costs: Year wise:		
1	20,000	25,000
2	20,000	25,000
3	20,000	25,000
4	25,000	36,000
5	25,000	36,000
6	25,000	36,000
7	30,000	—
8	30,000	—
9	30,000	—
10	30,000	—

The salvage value of the Machine I is expected to be ₹15,000 at the end of its life of 10 years, while for Machine II it is ₹10,000 at the end of the 6th year.

The cost of capital is 15%.
You can assume that technically both the Machines are equally useful.

You are required to answer the following:
(i) What is the present value of costs for Machine I?
(ii) What is the present value of costs for Machine II?
(iii) What is the annual capital charge for Machine I?
(iv) What is the annual capital charge for Machine II?
(v) Which of the Machines is cheaper?

[Given:

Year	Rate	PVFA	PVF
3	15%	2.283	0.658
4	15%	2.855	0.572
6	15%	3.784	0.432
10	15%	5.019	0.247]

[2+2+2+2+1]

3. (a) (iii) List the usual forms of bank credit available in India for a business. [3]

3. (b) (i)
The credit terms of a firm currently is Net 30. It is considering to change it to Net 60. This will have the effect of increasing the firm's sales. As the firm will not relax credit standard, the bad debts losses are expected to remain at the same percentage, i.e., 3 per cent of sales. Incremental production, selling and collection costs are 80 per cent of sales and expected to remain constant over the range of anticipated sales increase. The relevant opportunity cost of receivables is 15 per cent. Current annual credit sales are ₹600 crore and current level of receivables is ₹60 crore. If the credit terms are changed, the current sales are expected to change to ₹720 crore and the firm's receivables level will also increase. The firm's financial manager estimates that the new credit terms, will cause the firm's collection period to increase by 30 days.

Required:
(i) Determine the present collection period and the collection period after the proposed change in credit terms.
(ii) What level of receivables is implied by the new collection period?
(iii) Determine the increased investment in receivables, if the new credit terms are adopted.
(iv) Are the new credit terms desirable? (Assume 360 days in a year) [2+2+1+5]

3. (b) (ii) Is Share Buyback is a financing decision or an investment decision? [3]

3. (b) (iii) Any three differences between Funds Flow Statement and Cash Flow Statement. [3]

3. (c) (i)
XYZ Ltd. sells its products on a gross profit of 20% of sales. The following information is extracted from its annual accounts for the year ending 31st March, 2014.

	₹
Sales (at 3 months credit)	40,00,000
Raw materials	12,00,000

Wages (15 days in arrears)	9,60,000
Manufacturing expenses and general expenses (One month in arrears)	12,00,000
Administration expenses (one month in arrears)	4,80,000
Sales promotion expenses (payable half yearly in advance)	2,00,000

The company enjoys one month credit from the suppliers and maintains 2 months stock of raw materials and 1½ months stock of finished goods. Cash balance is maintained at ₹1,00,000 as a precautionary balance. Assuming a 10% margin, find out the working capital requirement of XYZ Ltd. [9]

3. (c) (ii)

Mishra Ltd. wants to raise ₹5,00,000 as additional capital. It has two mutually exclusive alternative financial plans. The current EBIT is ₹17,00,000 which is likely to remain unchanged. The relevant Information is -

Present Capital Structure: 3,00,000 Equity shares of ₹10 each and 10% Bonds of ₹20,00,000.

Tax Rate:	50%
Current EBIT:	₹ 17,00,000
Current EPS:	₹ 2.50
Current Market Price:	₹ 25 per share
Financial Plan I:	20,000 Equity Shares at ₹ 25 per share.
Financial-Plan II:	12% Debentures of ₹ 5,00,000.

What is the indifference level of EBIT? [7]