PAPER – 8: COST ACCUNTING & 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) Compute the Inventory turnover ratio from the following:
Opening Stock - ₹ 12,200
Closing Stock - ₹ 19,000
Material Consumed - ₹ 78,000

(b) State the Scope and objective of CAS – 7 [Employee Cost] in brief.

(c) List the advantages of Cost control.

(d) Write a note on – Cost Collection.

(e) For a department the standard overhead rate is ₹2.50 per hour and the overhead allowances are as follows:

Activity Level (Hours)	Budget overhead Allowance (₹)
3,000	10,000
7,000	18,000
11,000	26,000

Calculate:

i) Fixed cost

ii) The standard activity level on the basis of which the standard overhead rate has been worked out.

(f) The average annual consumption of a material is 36,500 units at a price of ₹ 73.00 per unit. The storage cost is 20% on an average inventory and the cost of placing an order is ₹ 100. How much quantity is to be purchased at a time?

(g) Income from Operating Activities is ₹70 lakhs;
Fixed Asset sold for ₹100 lakhs;
Machinery Sold for ₹130 lakhs;
Income from Financing Activities is ₹20 lakhs, compute the net effect on Cash Flow.

(h) The following information is available for ABC & Co.

	₹
EBIT	11,20,000

Profit before Tax	**3,20,000**
Fixed costs	**7,00,000**

(i) Bombay Cotton Mills Limited makes a rights issue at ₹5 a share of one new share for every four shares held. Before the issue, there were 10 million shares outstanding and the share price was ₹ 6. What is the value of one right?

(j) The capital of PQR Limited is as follows:

9% preference shares of ₹10 each ₹3,00,000
Equity shares of ₹10 each ₹8,00,000
Following further information is available:
Profit after Tax ₹2,70,000
Equity Dividend paid 20%
The market price of equity shares ₹40 each
Compute the EPS and PE ratio .

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

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

Annual demand	2000 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 and total annual inventory cost of the raw material. [4]

(ii) Discuss the accounting treatment of idle time wages and overtime wages in cost accounts. [3+3=6]

(iii) List the items of Direct Expenses that are required to be disclosed in a Cost Statement as per CAS – 10. [6]

(b)
(i) PRO manufacturers - a small scale enterprise produces a single product and has adopted a policy to recover the production overheads of the factory by adopting a single blanked rate based on machine hours. The budgeted production overheads of the factory are Rs.10,08,000 and budgeted machine hours are 96,000.
For the period first six month of the financial year 2015-16, following information were extracted from the books:

Actual production overheads	₹6,79,000
Amount included in the production overheads:	
Paid as per court's order	₹ 45,000
Expenses of previous year booked in current year	₹ 10,000
Paid workers for strike period under an award	₹ 42,000
Obsolete stores written off	₹ 18,000

Production and sales data of the concern for the first six months are as under:

Production:	
Finished goods	**22,000 units**
Work-in-progress (50% complete in every respect)	**16,000 units**
Sale: Finished goods	**18,000 units**

The actual machine hours worked during the period were 48,000 hours. It is revealed from the analysis of information that i of the under-absorption was to defective production policies and the balance was attributable to increase in costs.

You are required:

I. **to determine the amount of under absorption of production overheads for the period,**
II. **to show the accounting treatment of under-absorption of production overheads, and**
III. **to apportion the unabsorbed overheads over the items.**

[3+2+3=8]

(i) In a manufacturing company, a material is used as follows: Maximum Consumption-12,000 units per week. Minimum Consumption-4,000 units per week. Normal Consumption-8,000 units per week. Reorder Quantity-48,000 units. Time required for delivery: Minimum: 4 weeks; Maximum: 6 weeks. Calculate:

(a) Re-order level, (d) Danger level and,
(b) Minimum level, (e) Average Stock level.
(c) Maximum level,

[5]

(ii) Explain the term Opportunity Cost. **[3]**

(c)

(i) A factory incurred the following expenditure during the year 2015.

	₹	₹
Direct material consumed		**12,00,000**
Manufacturing wages		**7,00,000**
Manufacturing overheads:		
Fixed	**3,60,000**	
Variable	**2,50,000**	**6,10,000**
		25,10,000

In the year 2016, following changes are expected in production and cost of production.

1. **Production will increase due to recruitment of 60% more workers in the factory.**
2. **Overall efficiency will decline by 10% on account of recruitment of new workers.**
3. **There will be an increase of 20% in fixed overhead and 60% in variable overhead.**
4. **The cost of direct material will be decreased by 6%.**
5. **The company desire to earn a profit of 10% on selling price.**

Ascertain the cost of production and selling price.

[7]

(ii) Discuss Practical Capacity. **[4]**

(iii) In a manufacturing concern the daily wage rate is ₹2.50. The standard output in a 6 day week is 200 units representing 100% efficiency. The daily wage rate is paid without bonus to those workers who show up to 66 2/3% of the efficiency standard. Beyond this there is a bonus payable on a graded scale as below:-

82% efficiency - 5% bonus

90% Efficiency - 9% bonus

100% efficiency - 20% bonus

Further increase of 1% for every 1% further rise in efficiency. In a 6 day week A produced 180 units; B 164 units; C 200 units; D 208 units and E 130 units.

Calculate the earnings of these workers. [5]

(d)
(i) A skilled worker in XYZ Ltd. is paid a guaranteed wage rate of Rs. 30 per hour. The standard time per unit for a particular product is 4 hours. P, a machine man, has been paid wages under the Rowan Incentive Plan and he had earned an effective hourly rate of Rs. 37.50 on the manufacture of that particular product.
What could have been his total earnings and effective hourly rate, had he been put on Halsey Incentive Scheme (50%)? [6]

(ii) Write a note on "Attendance Bonus and its treatment". [4]

(iii) List the inclusions and exclusion in measuring Direct Expenses as per CAS 10. [6]

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

(a) (i) State the functions performed by the Securities & Exchange Board of India (SEBI). [6]

(ii) Write a note on Venture Capital: [4]

(iii) ABC Ltd. wishes to raise additional finance of ₹ 20 lakhs for meeting its investment plans. The company has ₹ 4,00,000 in the form of retained earnings available for investment purposes. The following are the further details:

- **Debt equity ratio 25 : 75.**
- **Cost of debt at the rate of 10 percent (before tax) upto ₹ 2,00,000 and 13% (before tax) beyond that.**
- **Earning per share, ₹ 12.**
- **Dividend payout 50% of earnings.**
- **Expected growth rate in dividend 10%.**
- **Current market price per share, ₹ 60.**
- **Company's tax rate is 30% and shareholder's personal tax rate is 20%.**

Required:
(I) Calculate the post tax average cost of additional debt.
(II) Calculate the cost of retained earnings and cost of equity.
(III) Calculate the overall weighted average (after tax) cost of additional finance.
[2+2+2=6]

(b) (i) A Company provide the following data:

	Cost per unit (₹)
Raw materials	52.00
Direct labour	19.50
Overheads	39.00
Total cost	110.50

Profit	**19.50**
Selling price	**130.00**

The following additional information is available:-

1) **Average raw materials in stock: one month.**
2) **Average materials in process: half-a-month**
3) **Average finished goods in stock: one month**
4) **Credit allowed by suppliers: one month**
5) **Credit allowed to debtors: two month**
6) **Time lag in payment of wages: one and a half weeks.**
7) **Overheads: one month**
8) **One-fourth of sales are on cash basis.**
9) **Cash balance is expected to be ₹ 1,30,000**

You are required to prepare a statement showing the working capital needed to finance a level of activity of 70,000 units of annual output. The production is carried evenly throughout the year and wages and overheads accrue similarly. (Calculation is made on the basis of 30 days a month and 52 weeks a year.) [8]

(ii) Projects X and Y are analysed and you have determined the following parameters. Advise the investor on the choice of a project:

Particulars	Project X	Project Y
Investment	₹7 Cr.	₹5 Cr.
Project life	8 years	10 years
Construction period	3 years	3 years
Cost of capital	15%	18%
N.P.V. @ 12%	₹3,700	₹4,565
N.P.V. @ 18%	₹ 325	₹325
I.R.R.	45%	32%
Rate of return	18%	25%
Payback	4 years	6 years
B.E.P.	45%	30%
Profitability index	1.76	1.35

[4]

(iii) Mention any four significance of Capital Budgeting Decision. [4]

(c) (i) A company manufacturing electronic equipments is currently buying component A from a local supplier at a cost of Rs 30 each. The company has a proposal to install a machine for the manufacture of the component. Two alternatives are available as under :

i. Installation of semi-automatic machine involving an annual fixed expenses of ₹ 18 lakhs and a variable cost of ₹ 12 per component manufactured.

ii. Installation of automatic machine involving an annual fixed cost of ₹ 30 lakhs and a variable cost of ₹10 per component manufactured.

Required :

1. Find the annual requirement of components to justify a switch over from purchase of components to (i) manufacture of the same by installing semi-automatic machine and (ii) manufacture of the same by installing automatic machine.
2. If the annual requirements of the component is 5,00,000 units, which machine would you advise the company to install?
3. At what annual volume would you advise the company to select automatic machine instead of semiautomatic machine? [8]

(ii) From the following figures, prepare a statement showing the changes in the working capital and fund flow statement during the year 2015:-

Assets	Dec.31,2014	Dec.31,2015
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) A machine costing ₹ 70,000 book value ₹ 40,000 was disposed of for ₹ 25,000.
(b) Preference share redemption was carried out at a premium of 5% and
(c) Dividend at 10% was paid on equity share for the year 2012.

Further:

1) The provision for depreciation stood at ₹ 1,50,000 on 31.12.14 and at ₹ 1,90,000 on 31.12.15; and
2) Stock which was valued at ₹ 90,000 as on 31.12.14; was written up to its cost, ₹ 1,00,000 for preparing Profit and Loss account for the year 2015. [3+5]