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) Define Cost Apportionment.

(b) 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.

(c) 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?

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

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

Particulars	**₹**
Direct Material	**25,000**
Direct Labour	**25,000**
Direct Expenses	**2,500**
Overhead Expenses	**1,05,000**

What will be the overhead recovery rate based on prime cost?

(f) State the cost units applicable to the following industries:
Cement, Goods Transport, Education, BPO

(g) Calculate the future value of ₹1,000 invested in State Bank Cash Certificate scheme for 2 years @5.5% p.a., compounded semi-annually.

(h) 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
Then the EPS and PE ratio are:

(i) Cactus Limited paid a dividend of ₹5 per share for 2013-14. 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 14%. What would be the expected market price of its share, using the Walter Model?

(j) X owns a stock portfolio equally invested in a risk free asset and two stocks. If one of the stocks has a beta of 0.8 and the portfolio is as risky as the market what must be the beta of the other stocks in the portfolio?

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

(a) (i)

The particulars relating to the import of Sealing Ring made by AB & Co. during December, 2014 are given below:

(a) Sealing Ring --1,000 pieces invoiced £ 2.00 C.I.F. Mumbai Port.
(b) Customs duty was paid @ 100% on invoice Value (which has converted to Indian currency by adopting an exchange rate of ₹ 17.20 per £)
(c) Clearing charges-- ₹1,800 for the entire consignment, and'
(d) Freight charges - ₹1,400 for transporting the consignment from Mumbai Port to factory premises.

It was found on inspection that 100 pieces of the above material were broken and, therefore, rejected.

There is no scrap value for the rejected part. No refund for the broken material would be admissible as per the terms of contract. The management decided to treat 60 pieces as normal loss and the rest 40 pieces as abnormal loss. The entire quantity of 900 pieces was issued to production.

Calculate

I. Total cost of material, and
II. Unit cost of material issued to production.

Also state briefly how the value of 100 pieces rejected in inspection will be treated in costs. [2+2+2= 6]

(ii) State the treatment of the following items in Cost Accounts:

I. Spoiled Work
II. Cost of Containers relating to Material Purchased [3+3]

(iii) State the reasons of over –absorption and under-absorption of overheads and list the methods of their absorption. [2+2=4]

2.(b)(i)

Gemini Enterprises undertakes three different jobs A, B and C. All of them require, the use of a special machine and also the use of a computer. The computer is hired and the hire charges work out to ₹4,20,000 per annum. The expenses regarding the machine are estimated as follows:

Rent for the quarter	**₹17,500**
Depreciation per annum	**2,00,000**
Indirect charges per annum	**1,50,000**

During the first month of operation the following details were taken from the job register;

Job	**A**	**B**	**C**
Number of hours the Machine was used:			
(a) Without the use of the Computer	**600**	**900**	**-**
(b) With the use of the Computer	**400**	**600**	**1,000**

You are required to compute the machine hour rate:-

I. For the firm as a whole for the month when the computers was used and when the computer was not used.

II. For the individual jobs A, B and C. [6+4]

2. (b) (ii) Measurement of Employee Cost (with special items)

Trial Balance as on 31.3.2012 (relevant extracts only)

Particulars	Amount (₹)	Particulars	Amount (₹)
Materials consumed	25,00,000		
Salaries	15,00,000	Special Subsidy received from Government towards Employee salary	2,75,000
Employee Training Cost	2,00,000	Recoverable amount from Employee out of perquisites extended	35,000
Perquisites to Employees	4,50,000		
Contribution to Gratuity Fund	4,00,000		
Lease rent for accommodation provided to employees	3,00,000		
Festival Bonus	50,000		
Unamortised amount of Employee cost related to a discontinued operation	90,000		

Calculate the employee cost. [6]

2. (c)

(i) PQ Ltd. has two production shops P and R manufacturing products 'PDT' and 'RS' respectively. Staff X, Y and Z work in shop P, staff R and S work in shop R and foreman F supervises shops P and R. 'A' is the accounts assistant in the Accounts Department who does the accounting and the payment.

Salesmen M and N market products PDT and RS respectively. The company pays the staff at certain specified rates for the hours worked. The following information is given:

Sl. No.	Details	X	Y	Z	R	S	F	A	M	N
I	Total hours worked as per time sheet	1440	1440	1340	1640	1640	1600	1000	600	600
II	Overtime hours included in I				50	50	50			
III	Night Shift hours (included in I above, in addition to II)	20	20	20	150	150	170			
IV	Normal wage rate per hour (₹/hr)	40	40	40	40	40	100	80	65	75
V	Overtime allowance ₹/hr (in addition to IV)				20	20	30			
VI	Night Shift Allowance ₹/hr (in addition to IV)	30	30	30	30	30	45			
VII	Idle time during the day due to sudden unexpected overhaul (hours included in I above)	70	70	70	70	70	70			

Additional Information:

All the night shift and overtime done by X, Y, Z, R, S and F were done only in shop P due to power failure during the normal hours.

Salary of A will be in the ratio 5:3 for products PDT and RS respectively.

Present a statement showing the item-wise amounts that you would include under Direct Labour and appropriate overhead for each type of product. Comment on the treatment of the overhaul cost as per item VII above. [13]

(ii) What are defectives? How would you treat them in Cost Accounts? [3]

2. (d) (i) A company makes components for television sets using two service departments and two production departments. The inter-departmental relationships and overhead costs are given below.

	Percentage of Service provided to			
From:	Maintenance	Scheduling	Moulding	Assembly
Maintenance	-	10 %	40 %	50 %
Scheduling	20 %	-	50 %	30 %
Total Overhead Cost (₹)	7,50,000	4,00,000	3,78,000	2,76,000

You are required to show the amount of Scheduling Department cost and Maintenance Department cost to be allocated to the Production Department, using Simultaneous Equation Method. [6]

2.(d) (ii) The Standard labour time required for the production of a certain component has been fixed as 4 hours. An incentive scheme was introduced recently to raise labour productivity. The relevant details of the scheme are as follows:

Efficiency	Incentive as a percentage of Basic Wage
Below 100%	No incentive

100 % (i.e. 4 hours / unit)	10%
Above 100%	1% additional incentive for every 1% increase in efficiency above 100%, fractions excluded

Four Workers A, B, C and D produced 16, 12, 14 and 10 units respectively in a particular week of 48 hours. The basic wages of all workers is ₹ 15 per hour.
Calculate the efficiency, incentive bonus, total earnings and labour cost per unit in respect of each of the four workers. [2+2+2+2=8]

(ii) List out duties of Store Keeper. [2]

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

(a) (i) How does financial leverage increase the potential reward to the shareholders? [6]

(ii) A hospital is considering to purchase a diagnostic machine costing ₹80,000. The projected life of the machine is 8 years and has an expected salvage value of ₹6,000 at the end of 8 years. The annual operating cost of the machine is ₹7,500. It is expected to generate revenues of ₹40,000 per year for eight years. Presently, the hospital is outsourcing the diagnostic work and is earning commission income of ₹ 12,000 per annum; net of taxes.

Required:
Whether it would be profitable for the hospital to purchase the machine? Give your recommendation under:

I. Net Present Value method.
II. Profitability Index method.

PV factors at 10% are given below:

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
0.909	0.826	0.751	0.683	0.621	0.564	0.513	0.467

[5+2=7]

(ii) Differentiate between merit rating and job evaluation. [3]

3. (b) (i) Discuss the liquidity vs. profitability issue in management of working capital. [4]

3. (b) (ii) List the function of SEBI. [4]

3. (b) (iii) 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 Share	120 per share
Debentures	110 per debenture

Other information are:

I. **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.**

II. **Preference Shares are redeemable at a premium of 10%, have 2% floatation cost and 10 year maturity.**

III. **Debentures are redeemable at par, have 4% floatation and 10 year maturity.**

IV. **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]

3. (c) (i)

Write Short note on Global Depository receipts. [4]

3. (c) (ii) The following information is available as on 31.03.2015

Current Ratio	2.7 : 1
Current Liabilities to Net worth	20%
Total Debts to Net worth	39%
Fixed Assets to Net worth	85%
Sales to Net worth	2.4 times
Inventory to Current Assets	1 : 3
Average Collection Period	1 month
Working capital	₹5,10,000

Calculate the following as on 31.03.2015:

(A) Fixed assets
(B) Inventory
(C) Debtors
(D) Cash and Bank Balance (combined figure)
(E) Net worth
(F) Long term Debts
(G) Current Liabilities
(H) Total Assets [8]

3. (c) (iii) X Ltd., has 8 lakhs equity shares outstanding at the beginning of the year 2003. The current market price per share is ₹120. The Board of Directors of the company is contemplating ₹ 6.4 per share as dividend. The rate of capitalisation, appropriate to the risk-class to which the company belongs, is 9.6%:

Based on M-M Approach, calculate the market price of the share of the company, when the dividend is – (a) declared; and (b) not declared. [4]