Paper – 8: Cost Accounting & Financial Management

Time Allowed: 3 Hours **Full Marks: 100**

Section A-Cost Accounting

(Answer Question No. 1 which is compulsory and any three from the rest in this section)
Working Notes should form part of the answer.

Question.1

(a) Standard time is 60 hours and guaranteed time rate is ₹50 per hour. Under Rowan plan, what is the amount of wages, If job is completed in 48 hours? **[2]**

(b) If the absorption rate is ₹130 per hour, the production hours are 300 and the under absorption being ₹ 3,000. What would be the actual expenses? **[2]**

(c) For a particular item of store, the following information are available:
Re-order quantity=1,200
Maximum consumption per week=300 units
Normal consumption per week=200 units
Re-order period=2 to 4 weeks
What will be the re-order level. **[2]**

(d) After inviting tenders for supply of raw materials, two quotations are received as follows- Supplier A ₹2.20 per unit, Supplier B ₹2.10 per unit plus ₹2,000 fixed charges irrespective of the units ordered.
What will be the ordered quantity for which the purchase price per unit will be same? **[2]**

(e) Purchase of materials $20,000 [Forward contract rate $44.30; but $44.50 on the date of importation]; Freight inward ₹50,000; Cash discount ₹15,000; CENVAT Credit refundable ₹17,000. Compute the landed cost of material as per CAS-6. **[2]**

(f) The annual demand of a certain product is 8,000 units, ordering cost per order is ₹40, carrying cost is 10% of average inventory value and purchase cost is ₹10 per unit. What will be the EOQ of the product? **[2]**

Question.2

(a) Both direct and indirect employees of a department in a factory are entitled to production bonus in accordance with a Group Incentive Scheme, the outlines of which are as follows:

(i) For any production in excess of standard rate fixed at 10,000 tonnes per month of 25 days, a general incentive of ₹10 per tonne is paid in aggregate. The total amount payable to each separate group is determined on the basis of an assumed percentage of such excess production being contributed by it, namely @ 70% by direct labour, @ 10% by inspection staff, @ 12% by maintenance staff and @ 8% by supervisory staff.

(ii) Moreover, if the excess production is more than 20% above the standard, direct labour also get a special bonus @ ₹7 per tonne for all production in excess of 120% of standard.

(iii) Inspection staff are penalised @ ₹20 per tonne for rejection by customers in excess of 1% of production (Actual).

(iv) Maintenance staff are penalised @ ₹20 per hour of breakdown.

From the following particulars for a month, workout the production bonus of each group:

(A) Production 13,000 tonnes (Actual)

(B) Rejection by customers - 200 tonnes

(C) Machine breakdown -50 hours **[10]**

(b) "Costs may be classified in a variety of ways according to their nature and the information needs of the management'.-Discuss. **[6]**

Question.3

(a) JP Limited, manufacturers of a special product, follows the policy of EOQ (Economic Order Quantity) for one of its components. The component's details are as follows:

Purchase Price per Component	₹200
Cost of an order	100
Annual Cost of Carrying one unit in Inventory	10% of Purchase Price
Total cost of Inventory and Ordering p.a.	4,000

The company has been offered a discount of 2% on the price of the component provided the lot size is 2,000 components at a time.

You are required to:

(i) Compute the EOQ

(ii) Advise whether the quantity discount offer can be accepted (Assume that the inventory carrying cost does not vary according to the discount policy)

(iii) Would your advice differ if the company is offered 5% discount on -a single order? **[4+3+3=10]**

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

(c) State the treatment of Fringe Benefit in Costing? **[2]**

Question.4

(a) A and B are two workers working in a manufacturing Company and their output during a particular 40 hours week was 96 and 111units respectively. The guaranteed rate per hour is ₹ 12 per hour, low piece rate is ₹ 4 per unit, and high piece rate is ₹6 per unit. High task is 100 units per week. Compute the total earnings and labour cost per unit under Taylor and Gantt Task Bonus plan. **[3+2=5]**

(b) 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]**

(c) The production department of a factory furnishes the fallowing information for the month of December 2013.

Material used	₹54,000
Direct wages	₹45,000
Overheads	₹36,000
Labour hours worked	36,000
Hours of machine operation	30,000

For an order executed by the department during a particulars period, the relevant information is as under:

Material used	₹6,00,000
Direct wages	₹3,20,000
Labour hours worked	₹3,200
Machine hours worked	2,400

Calculate the overhead charges chargeable to the job by the following methods:

(i) Direct materials cost percentage rate;

(ii) Labour hour rate; and

(iii) Machine hour rate. **[1+1+1 = 3]**

Question.5

(a) 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 both the products]; Royalty paid on units produced ₹35,000 [@Re.1 per unit produced, 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. **[3]**

(b) X Ltd. having fifteen types of automatic machines furnishes information as under for 2012-13:

(i) Overhead expenses: Factory rent ₹ 96,000 (Floor area 80,000 sq. ft.), Heat and gas ₹ 45,000 and supervision ₹ 1,20,000.

(ii) Wages of the operator are ₹ 48 per day of 8 hours. He attends to one machine when it is under set-up and two machines while they are under operation.

In respect of machine B (one of the above machines) the following particulars are furnished:

(i) Cost of machine ₹ 45,000, Life of machine—10 years and scrap value at the end of its life ₹5,000.

(ii) Annual expenses on special equipment attached to the machine are estimated at ₹ 3,000.

(iii) Estimated operation time of the machine is 3,600 hours while setup time 400 hours per

annum.

(iv) The machine occupies 5,000 sq. ft. of. floor area.

(v) Power costs ₹ 2 per hour while machine is in-operation.

Find out the comprehensive machine hour rate of machine B. Also find out machine costs to be absorbed in respect of use of machine B on the following two work-orders:

	Work – order 31	**Work – order 32**
Machine set up time (Hours)	10	20
Machine operation time (Hours)	90	180

[5 + 2 =7]

(c) The particulars relating to 1,200 kgs. of a certain raw material purchased by a company during June, were as follows:-

Lot prices quoted by supplier and accepted by the Company for placing the purchase order:
Lot up to 1,000 kgs. @ ₹ 22 per kg.
Between 1,000- 1,500 kgs, @ ₹ 20 per kg.
Between 1,500-2,000 kgs. @ ₹ 18 per kg.
Trade discount – 20%.
Additional charge for containers @ ₹ 10 per drum of 25 kgs.
Credit allowed on return of containers, @ ₹ 8 per drum.
Sales tax at 10% on raw material and 5% on drums.
Total freight paid by the purchaser ₹ 340/-
Insurance at 2.5% (on net invoice value) paid by the purchaser.
Stores overhead applied at 5% on total purchase cost of material.
The entire quantity was received and issued to production.
The containers are returned in due course. Draw up a suitable statement to show:-

(i) Total cost of material purchased and

(ii) Unit cost of material issued to production. **[3+3]**

Section B–Financial Management

(Answer Question no.6which is compulsory and any two from the rest in this section.)

Question.6.

Choose the most appropriate one from the stated options.

(a) A Company has paid ₹3 as current dividend; the growth rate of the dividend paid by the company is 8%. If the cost of equity is 12%, what will be the price of the company's share in nearest ₹ in three year? **[2]**

(A) ₹100
(B) ₹118
(C) ₹110
(D) ₹102

(b) The following information is provided for XYZ Ltd.:

	Old Level	New Level
Net Profit (₹)	1,70,000	2,20,000
Number of Shares	80,000	80,000
Sales (Units)	2,00,000	2,50,000

What will be the percentage of changes in EPS of XYZ Ltd. for the two levels? **[2]**
(A) 29.4% increase
(B) 29.4% decrease
(C) 0.77% increase
(D) 27.7% increase

(c) The total market value of the equity shares of ANITA LTD. is ₹ 60lakh and the total value of debt is ₹40lakh. The treasurer estimates that the beta of the stock is currently 1.5. Assume that the beta is zero. If the expected risk premium of the market is 10% and the Treasury bill rate is 8%, what will be the cost of capital of ANITA LTD.? **[2]**
(A) 23%
(B) 17%
(C) 16%
(D) Insufficient data

(d) The earning power of SYNTEX LTD. is 0.30. If the average of total assets and interest expenses are ₹2,00,000 and ₹15,000 respectively, what will be the interest coverage ratio? **[2]**
(A) 1.5
(B) 3.00
(C) 4.00
(D) None of (A), (B), (C)

Question.7

(a) MINTEX LTD. gives you the following information for the year ended 31s' March, 2013:
- **(i)** Sales for the year totalled ₹96,00,000. The company sells goods for cash only.
- **(ii)** Cost of goods sold was 60% of sales. Closing inventory was higher than opening inventory by ₹ 20,000.
- **(iii)** Tax paid amounted to ₹7,00,000. Other expenses totaled ₹21,45,000. Outstanding expenses on 31st March, 2012 and 31s1 March, 2013 totalled ₹ 82,000 and ₹ 91,000 respectively.
- **(iv)** New machinery and furniture costing ₹10,50,000 in all were purchased. One equipment was sold for ₹ 20,000.
- **(v)** A right issue was made of 50,000 shares of ₹10 each at a premium of ₹3 per share. The entire money was received with application.
- **(vi)** Dividends totalling ₹ 4,00,000 were distributed among the share holders.
- **(vii)** Cash in hand and at Bank as at 31sl March, 2012 and 31st March, 2013 totalled ₹ 2,10,000 and ₹ 4,14,000 respectively.

You are required to prepare cash flow statement for the year ended 31sl March, 2013 using the direct method. **[10]**

(b) What are the determinants of Dividend policy? **[6]**

Question.8

(a) What are the criticisms of Capital Assets Pricing Model (CAPM)? **[4]**

(b) XYZ Limited wishes to raise additional finance of ₹ 10 lacs for meeting its investment plans. It has ₹ 2,10,000 in the form of retained earnings available for investment purposes. The following are the further details:

i. Debt/ equity mix 30%/70%
ii. Cost of debt upto ₹ 1,80,000 - 10% (before tax) beyond ₹ 1,80,000 - 16% (before tax)
iii. Earnings per share ₹ 4
iv. Dividend payout 50% of earnings
v. Expected growth rate in dividend 10%
vi. Current market price per share ₹ 40
vii. Tax rate 50%

You are required to:

(i) Determine the pattern for raising the additional finance.
(ii) Determine the post-tax average cost of additional debt.
(iii) Determine the cost of retained earnings and cost of equity , and
(iv) Compute the overall weighted average after tax cost of additional finance. **[2+2+2+3 =9]**

(c) What are the assumptions of Walter Model? **[3]**

Question.9

(a) The financial highlights of AMTEK LTD. for the year 2012 – 2013 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) VEDIKA LTD. with a limited investment funds of ₹ 6,00,000 is evaluating the desirability of (five) investment proposals. Their profiles are summarized below:

Project	Investment (₹)	Annual cash flow (after tax) (₹)	Life (in Years)
M	1,00,000	36,000	10
N	2,00,000	1,00,000	4
O	2,40,000	60,000	8
P	3,00,000	80,000	16
Q	4,00,000	60,000	25

Project N and Q are mutually exclusive. The cost of funds is 10 per cent.

Required:

Find out the feasible combination of projects and rank them on the basis of Net Present value (NPV).

Note: Extracted from the table:

Year	10	4	8	16	25
PVIFA at 10%.	6.145	3.170	5.335	7.824	9.077

[8+2]