

COST ACCOUNTING AND FINANCIAL MANAGEMENT

Reg. No.....

Total Number of Questions: 8

Total Number of Printed Pages: 6

Time Allowed: 3 Hours

Maximum Marks: 100

All questions are compulsory.

Working Notes should form part of the answer.

CF – IP – 04

1. Answer **any five** out of the following:

5 X 2 = 10 Marks

- (i) Notional Profit on a Contract which is 60% complete as on 31st March is Rs.2,70,000. Estimated Total Profit on that contract is Rs.4,50,000. The Company transferred an amount of Rs.2,16,000 to its P&L Account for the year ended 31st March, by recognizing a proportion of Total Profit relating to the work certified till 31st March, on cash basis. You are required to find out the percentage of payment in this case.
- (ii) Standard Output in 10 hours is 240 units, Actual Output in 10 hours is 264 units. Wage Rate is Rs.10 per hour. Calculate the amount of bonus and total wages under Emerson Plan.
- (iii) Differentiate between Absolute and Commercial Tonne–Kilometres.
- (iv) What is meant by Split–Off Point?
- (v) What is Multiple Costing? Explain with one example.
- (vi) If Raw Material Usage per day is 140 units, Lead Time is 6 days and Safety Stock is 8 days, compute ROL.

2. Sumukha Ltd, which manufactures the component EXCEL, has achieved a turnover of Rs.6,00,000 for the calendar year 2009. The Manager of the Company has informed that the Company has worked at a Profit Volume Ratio of 25% and Margin of Safety of 20%. But he feels due to severe competition, the Selling Price is to be reduced to maintain the same volume of sales for the year 2010. He does not expect any change in variable costs. He expects that due to cost reduction programme, the Profit Volume Ratio and Margin of Safety will be 20% and 30% respectively and considerable saving in Fixed Cost for 2010.

Even if the Company prefers to shut down its operations for 2010, it expects to incur a minimum Fixed Cost of Rs.60,000. You are expected to –

- (a) Present the comparative statement of profit for the years 2009 and 2010. **8 Marks**
- (b) What will be minimum sales required, if it decides to shut down its unit in 2010? What is the percentage of this sales level to the Total Sales of Year 2009? **3 Marks**
- (c) List any four points of difference between Marginal Costing and Absorption Costing. **4 Marks**

3. (a) The following data relate to Process Q –

1. Opening WIP – 4,000 units. The degree of completion and costs are as under –

Materials	100%	Rs.24,000
Labour	60%	Rs.14,400
Overheads	60%	Rs. 7,200

2. Received during April from Process P: 40,000 units at a cost of Rs.1,71,000

3. Expenses incurred in Process Q during the month –

Materials	Rs. 79,000
Labour	Rs.1,38,230
Overheads	Rs. 69,120

4. Closing Work-in-Progress was 3,000 units, whose degree of completion was Materials – 100%, Labour & OH – 50%.
5. Units scrapped during the period was 4,000 units, whose degree of completion was Materials – 100%, Labour & OH – 80%
6. Normal Loss – 5% of current input.
7. Spoiled goods realised Rs.1.50 each on sale.
8. Completed units are transferred to warehouse – 37,000 units.

Required: Using FIFO Method, prepare the following –

8 Marks

- (a) Equivalent Units Statement,
 (b) Statement of Cost per equivalent unit, and
 (c) Statement showing apportionment of Total Costs.

(b) The working results of a Company for two corresponding years are shown below –

Particulars	Amount (Rs. In Lakhs)	
	Year 1	Year 2
Sales (A)	600	770
Cost of Sales:		
Direct Materials	300	324
Direct Wages and Variable Overheads	180	206
Fixed Overheads	80	150
Total Costs (B)	560	680
Profit (A – B)	40	90

In Year 2, there has been an increase in the Selling Price by 10%. Following are the details of Material Consumption and utilization of Direct Labour hours during the two years –

Particulars	Year 1	Year 2
Direct Material Consumption (M. tons)	5,00,000	5,40,000
Direct Labour Hours	75,00,000	80,00,000

Required: Taking Year 1 as base year, analyse the variances of Year 2.

8 Marks

4. Answer **any three** of the following:

3 X 3 = 9 Marks

(i) Write up the WIP Control Account from the following information –

- Opening and Closing Stocks of WIP = Rs.83,500 and Rs.1,35,000 respectively.
- Direct Materials purchased and consumed were Rs.1,36,000 and Rs.1,24,000 respectively.
- Total Wages paid was Rs.1,97,000, out of which Rs.37,000 is considered as Abnormal Idle Time Wages. The balance is considered as Direct and Indirect Wages in the ratio of 3 : 1.
- Overheads incurred during the period were Rs.2,24,000. However, Overheads absorbed were Rs.1,90,000 only.
- The Factory Supervisor reported an Abnormal Loss to an extent of Rs.12,000 during processing. This loss is not covered by any Insurance Claim.

(ii) A Manufacturing Company has two Production Departments P1 and P2 and two Service Departments S1 and S2. The Overhead Statement showed the following expenses for March –

- Production Departments: P1 Rs.90,000 P2 Rs.40,000
- Service Departments: S1 Rs.35,000 S2 Rs.30,000

The expenses of Service Departments are apportioned as follows:

Departments	P1	P2	S1	S2
S1	40%	50%	–	10%
S2	50%	30%	20%	–

Prepare a statement showing the apportionment of Service Department Expenses to Production Departments by using simultaneous equations method.

(iii) A Company manufactures two products X and Y. Product X requires 8 hours to produce while Product Y requires 12 hours. In April, of 22 effective working days of 8 hours a day, 1,200 units of X and 800 units of Y were produced. The Company employs 100 workers in production department to produce X and Y. The budgeted hours are 1,86,000 for the year.

From the above, calculate Capacity, Activity and Efficiency Ratio.

(iv) A Company manufactures two Products A and B by making use of two types of Raw Materials viz. X and Y. Product A requires 10 units of X and 3 units of Y. Product B requires 5 units of X and 2 units of Y. The Price of X and Y are Rs.2 and Rs.3 per unit respectively.

The Production Manager has estimated the production of Product A and B as 5,200 and 11,320 units respectively.

Prepare the Raw Material Consumption Budget in both quantities and cost thereof.

5. Answer **any five** out of the following:

5 X 2 = 10 Marks

- (i) Ajay enters into an agreement to deposit Rs.25,000 per annum for four years, to a financier who will allow 8% interest per annum and repay the amount at the end of four years. What amount will Ajay receive at maturity?
- (ii) Bring out the significance of Working Capital Cycle.
- (iii) Give the formula for the following ratios –
 - (a) Interest Coverage Ratio
 - (b) Return on Capital Employed
- (iv) Write any two criticisms of Wealth Maximisation Objective of Financial Management.
- (v) A Company has Operating Leverage of 2 times and Combined Leverage of 10 times. Its Present Earnings Per Share is Rs.20 per Share. What will be its new Earnings Per Share, if sales increases by 12.5%?
- (vi) Give any two advantages of the Net Present Value (NPV) Method of project evaluation.

6. The following is the condensed Balance Sheet of a Company at the beginning and at the end of a calendar year –

Assets	As at 1st Jan.	As at 31st Dec.
Cash & Bank Balances	50,000	40,000
Sundry Debtors	77,000	73,000
Short Term Investments	1,10,000	84,000
Prepaid Expenses	1,000	2,000
Stock-in-Trade	92,000	1,06,000
Freehold Land & Sheds	1,00,000	1,00,000
Plant and Machinery	72,000	80,000
Total	5,02,000	4,85,000

Liabilities	As at 1st Jan.	As at 31st Dec.
Sundry Creditors	1,03,000	96,000
Outstanding Expenses	13,000	22,000
5% Debentures	90,000	70,000
Depreciation Fund	40,000	44,000
Contingencies Reserve	60,000	50,000
Profit & Loss Account	16,000	23,000
Share Capital	1,80,000	1,80,000
Total	5,02,000	4,85,000

The following additional information is available –

1. Dividend at 10% was paid.
2. New Machinery of Rs.20,000 was purchased during the year and old machinery costing Rs.12,000 was sold for Rs.4,000 on which Accumulated Depreciation was Rs.6,000. The Factory Sheds are fully depreciated.
3. 5% Debentures of face value of Rs.100 each worth Rs.20,000 were redeemed by purchase from the open market at Rs.96 each.
4. Rs.10,000 was debited to the Contingency Reserve for settlement of previous tax liability.
5. Investment worth Rs.26,000 were sold at Book Value.

Prepare a Schedule of Changes in Working Capital, and a Statement showing Sources and Application of Funds. **15 Marks**

7 (a) A Company uses a machine whose present value is Rs.5,00,000. The Company is producing a single product and product cost data is given below –

Direct Materials – Rs.25 per unit, Direct Labour – Rs.45 per unit, Variable OH – Rs.15 per unit
Fixed OH Rs.1,30,000 per annum excluding non-cash items for production upto 20,000 units.
This will increase by Rs.20,000 per annum from 20,000 to 24,000 units.

The Company estimates its future production at 22,000 units per annum for the next five years. The sale price of the machine is Rs.10,000 at the end of the fifth year. If sold today, it will realize Rs.3,50,000 net.

A proposal for the replacement of the said machine by a more sophisticated machine is under consideration. The data relating to the new machine are –

1. Purchase Price – Rs.13,00,000
2. Operating Costs: Direct Material and Direct Labour – Rs.58 per unit
Variable Overheads – Rs.12 per unit
3. Fixed Overheads consisting of only cash items – Rs.2,10,000 per annum upto 25,000 units
4. Value at the end of the fifth year of life is Rs.3,00,000
5. Rate of Depreciation is 10% per annum.
6. Rate of Income–Tax is 50%.

Required:

1. Prepare a Cash Flow Statement for five years by taking Cost of Capital at 12% and determine the excess Present Value of Total Cash Flows. Use Reducing Balance Method of depreciation for this purpose.
2. State with reasons whether the replacement proposal should be implemented or not. Ignore tax effect on sale / disposal of assets.

PV Factors at 12% Rate are given below –

Year	1	2	3	4	5
PV Factor at 12%	0.893	0.797	0.712	0.636	0.567

7 (b) The following annual figures relate to Arun Limited –

Sales (at three months credit)	Rs.90,00,000
Materials consumed (suppliers extend one and half months credit)	Rs.22,50,000
Wages paid (one month in arrear)	Rs.18,00,000
Manufacturing Expenses outstanding at end of the year (Cash Expenses are paid one month in arrear)	Rs. 2,00,000
Total Administrative Expenses for the year (Cash Expenses are paid one month in arrear)	Rs. 6,00,000
Sales Promotion Expenses for the year (paid quarterly in advance)	Rs.12,00,000

The Company sells its products on Gross Profit of 25% assuming depreciation as part of the cost of production. It keeps two months' stock of Finished Goods and one month's stock of Raw Materials as inventory. It keeps a Cash Balance of Rs.2,50,000.

Ascertain the Working Capital requirements of the Company on Cash Cost basis. Ignore WIP and Income Tax Payment.

8 Marks

8. Answer **any three** out of the following:

3 X 3 = 9 Marks

- (i) Given below is the information concerning a project to be undertaken by a Company –
- Project Cost = Rs.200 Crores, which will be financed as Rs.120 Crores by way of Equity, and balance by Debt.
 - Equity Beta of the Company is 0.90.
 - Return on Market Portfolio is 14%, and Treasury Bonds carry an interest rate of 8%.
 - Pre-tax Cost of Debt is 16%, and Tax Rate is 30%.

Ascertain the Overall Cost of Capital of the Company.

- (ii) Write short notes on “Trade Credit” as a Source of Finance.
- (iii) Given the following information, compute Purchases during the period.
- Stock Velocity = 6 times.
 - Sales = Rs.33 Lakhs with a Gross Profit of 20%.
 - Closing Stock was 20% more than the Opening Stock.
- (iv) A Company employs Equity – Preference – Debt as 20 – 30 – 50 in its Total Capital Employed of Rs.50 Lakhs. Preference Capital carries 15% dividend while Debt has to be serviced at 12%. Find out the level of Financial Break Even Point, if the Company pays tax at 40%. Express the answer in both Rupees and Percentage.