

INTERMEDIATE EXAMINATION

June 2015

P-8(CAFM)
Syllabus 2012

Cost Accounting and Financial Management

Time Allowed: 3 Hours

Full Marks: 100

The figures in the margin on the right side indicate full marks.

All questions are compulsory, subject to internal choice as per instruction provided against each question.

All workings must form part of the answers.

Wherever necessary, candidates may make assumptions and clearly state them in the answer.

No Present Value factor table or other table will be provided along with this question paper.

I. Answer all sub-divisions:

2×10=20

- (a) Calculate the variable overhead per hour and the amount of fixed overheads from the following information:

Activity level (Hours)	Total Budgeted overhead (₹)
21000	1,25,000
28000	1,53,000

- (b) Direct material and direct labour cost of job No. 111 are ₹ 760 and ₹ 550 respectively. Overheads are charged @ 60% of direct labour. If the profit is included @ 20% of the price charged to customer, then calculate the price of job No. 111.
- (c) Ascertain the future value of annuity of ₹ 25,000 at the end of 6 years at 9% p.a. compounded annually. Assume that the amount is deposited at the beginning of every year.
- (d) Average collection period is 2 months, Cash sales and average receivables are ₹ 5,00,000 and ₹ 6,50,000 respectively. Find the amount of total sales.
- (e) Toli Ltd. earned a contribution of ₹ 50 per unit on 65,000 units sold. Company's debt is ₹ 30,00,000 at 12% rate of interest and Fixed Costs are ₹ 7,50,000. Calculate the Financial Leverage.
- (f) Determine which company is more profitable

	A. Ltd.	B. Ltd.
Net profit ratio	5%	8%
Turnover ratio	6 times	3 times

- (g) Cost of a machine is ₹ 30,000. Estimated scrap value at the end of 10 years ₹ 6,000. Running hours of the machine 24,000 p.a. Find out the depreciation per hour.

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- (h) Mr. X expects to receive ₹ 2,00,000 at the end of three years. What would be the present value if the rate of discount is 10%?
- (i) In a factory, a worker produced 14 units in a day of 8 hours. Wage rate per hour is ₹ 40. Standard output per hour is 2 units. Under differential piece rate system, a worker is paid at 83% when his performance is below standard and 125% of piece rate when his performance is at or above standard. Find out the labour cost of the worker for the day.
- (j) The number of employees at the beginning and end of year 2014 was 380 and 420. During the year, 18 employees resigned, 6 were terminated and there were 16 replacements. Find the Labour Turnover Ratio under the Flux Method.

II. Answer any three sub-divisions from (a) to (d):

16×3=48

- (a) (i) Naitik Limited produces a product which has a weekly demand of 2500 units. The product requires 5 kg. material for every finished unit of product. Material is purchased at ₹ 104 per unit. The ordering cost is ₹ 200 per order and the carrying cost is 10% per annum.
- (1) Calculate Economic Order Quantity.
- (2) Should the company accept an offer of 3% discount by the supplier who wants to supply the annual requirement of the material in five equal instalments? 3+5=8
- (ii) Two workmen, Gyani and Jeetu, produce the same product using the same material. Their normal wage rate is also the same. Gyani is paid bonus according to the Halsey System, while Jeetu is paid bonus according to the Rowan System. The time allowed to make the product is 40 hours. Gyani takes 25 hours while Jeetu takes 32 hours to complete the product. The factory overheads are charged @ 125% of direct labour cost. The factory cost for the product for Gyani is ₹ 8,925 and for Jeetu it is ₹ 9,456.

You are required to:

- (1) find the normal rate of wages;
- (2) find the cost of materials;
- (3) prepare a statement comparing the elementwise factory cost of the products as made by the two workmen. 2+2+4=8

- (b) (i) The total available working hours in a month in respect of a machine is 200 hours.

The idle-time card reveals as follows:

Tea break	20 hours
Waiting for job	10 hours
Waiting for tools	6 hours
Break down (major)	10 hours

Report the idle-time cost to the management under the appropriate category if hourly fixed costs of the machine amount to ₹ 4.25 and the operator is paid ₹ 0.75 per hour. 6

- (ii) Compute total direct expenses of Product X from the following information, giving appropriate explanatory notes:

Particulars	Figures
Production (Units)	20000
Sales (Units)	16000
Labour hours	10000
Labour rate per hour ₹	8
Royalty per unit of sale ₹	2
Royalty per unit of production ₹	1
Design Charges ₹	12,000
Interest on loan for purchase of machine ₹	5,000
Hire charges of equipment used for manufacturing product Y ₹	6,000
Penalty for violating Patent ₹	4,000

(iii) Compute the Employee Cost as per CAS-7 with appropriate reasoning:

Extract of Trial Balance as on 31-3-2015

Particulars (Debit)	Amount (₹)	Particulars (Credit)	Amount (₹)
Material consumed	30,00,000	Special subsidy received from Government towards employee salary	3,50,000
Salaries	18,00,000	Recoverable amount from employees out of perquisites extended	80,000
Employee training cost	3,00,000		
Perquisites to employees	4,80,000		
Contribution to gratuity fund	4,20,000		
Lease rent for accommodation provided to employees	5,60,000		
Festival bonus	1,00,000		

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(c) (i) The cost structure of an article, the selling price of which is ₹ 60,000 is as follows:

Direct materials	50%
Direct labour	20%
Overhead	30%

An increase of 15% in the cost of materials and of 25% in the cost of labour is anticipated. Assume no change in overhead.

This increased cost in relation to the present selling price would cause a 25% decrease in the amount of present profit per article.

(1) Prepare a statement of profit per article at present.

(2) Find the revised selling price to produce the same percentage of profit to sales as before.

5+3=8

- (ii) A company has three manufacturing departments A, B and C and one service department S. The following figures are available for one month of 25 working days of 8 hours each day. All these departments work on all the days.

Description	Total	Departments			
		S	A	B	C
Power and Lighting (₹)	1,100	240	200	300	360
Supervisor's Salary (₹)	2,000	—	—	—	—
Rent (₹)	500	—	—	—	—
Welfare (₹)	600	—	—	—	—
Other Expenses (₹)	1,200	200	200	400	400
Total (₹)	5,400				
Supervisor's Salary		20%	30%	30%	20%
Number of Workers		10	30	40	20
Floor area (in sq.ft)		500	600	800	600
Service rendered by Service Department		50%	30%	20%	

Calculate labour hour rate for each of A,B and C.

- (d) (i) Mahi Transport Company operates a Luxury bus, which runs between Delhi to Jaipur and back for 10 days in a month. The distance from Delhi to Jaipur is 270 kms. The bus completes the trip from Delhi to Jaipur and comes back on the same day. The bus goes on a Delhi- Agra trip for 10 days in a month. The distance from Delhi to Agra is 180 kms. This trip is also completed on the same day. For 4 days of its operation in a month it runs in the local city. Daily distance covered in the city is 65 kms. The other information is given below:

Particulars	₹
Cost of Bus	₹ 15,00,000
Depreciation	15% per annum
Salary of Driver	₹ 9,000 per month
Salary of Conductor	₹ 8,000 per month
Salary of Part time Accountant	₹ 4,500 per month
Insurance	₹ 10,800 per quarter
Diesel	₹ 49 per litre
Distance covered per litre	5 kms.
Token Tax	₹ 8100 per quarter
Lubricant oil	₹ 300 per 100 kms.
Repairs and Maintenance	₹ 8,000 per month
Permit Fee	₹ 13,050 per quarter
Normal capacity	50 persons

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The bus is generally occupied 90% of the capacity when it goes to Jaipur and 80% when it goes to Agra. It is always full when it runs within the city. Passenger tax is 25% of the fare.

Calculate the rate the company should charge a passenger when it wants to earn a profit of $33\frac{1}{3}\%$ on its revenue. 12

- (ii) A trading company starts its operation on 1-1-2014. Its stock register reveals the following data regarding the purchase of goods in 2014:

January to March	- 10,000 units @ ₹ 10 each
April to June	- 12,500 units @ ₹ 14 each
July to September	- 7,500 units @ ₹ 16 each
October to December	- 15,000 units @ ₹ 17 each

The company sells 27,500 units by 31st December 2014. Value the closing stock by FIFO and LIFO methods and also find the cost of goods sold under each method. 4

III. Answer any two sub-divisions from (a) to (c):

16×2=32

- (a) (i) The following information is available as on 31.3.2015:

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 31.3.2015:

- (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

- (ii) List the usual forms of bank credit available in India for a business. 4
- (iii) What is Marginal Cost of Capital? How is it used in decision making? 4
- (b) (i) Annu Ltd. is examining two mutually exclusive investment proposals. The management uses Net Present Value Method to evaluate new investment proposals. Depreciation is charged using Straightline Method. Other details relating to these proposals are:

Particulars	Proposal X	Proposal Y
Annual Profit before tax (₹)	13,00,000	24,50,000
Cost of the Project (₹)	90,00,000	180,00,000
Salvage Value (₹)	1,20,000	1,50,000
Working Life	4 years	5 Years
Cost of capital	10%	10%
Corporate Tax Rate	30%	30%

The present value of ₹ 1 at 10% discount rates at the end of first, second, third, fourth and fifth year are 0.9091; 0.8264; 0.7513; 0.683; and 0.6209 respectively.

You are required to advise the company on which proposal should be taken up by it. 8

- (ii) Write short notes on: 4+4=8
- (A) Letter of credit
- (B) Issue of commercial papers in India
- (c) (i) Calculate the operating leverage and financial leverage under situations A, B and C and financial plans I, II and III respectively from the following information relating to the operating and capital structure of ABC Co. Also find out the combination of leverages which give the highest value and the least value.

Installed capacity	1,200 units
Actual production and sales	800 units
Selling price per unit	₹ 15
Variable cost per unit	₹ 10
Fixed cost: Situation A	₹ 1,000
Situation B	₹ 2,000
Situation C	₹ 3,000

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Capital structure

Financial plan

	I	II	III
Equity	₹ 5,000	₹ 7,500	₹ 2,500
Debt	₹ 5,000	₹ 2,500	₹ 7,500
Cost of debt	12%	12%	12%

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- (ii) A company manufactures a small computer component. The component is sold for ₹ 1,000 and its variable cost is ₹ 700. The company sold on an average, 300 units every month in 2014-15. At present the company grants one month credit to its customers. The company plans to extend the credit to 2 months on account of which the following is expected:

Increase in sales is 25%

Increase in stock is ₹ 1,50,000

Increase in creditors ₹ 60,000

Should the company extend the credit terms if

(A) All customers avail of the extended period of 2 months.

(B) Only new customers avail of 2 months credit, assuming that the increase in sales is due to new customers.

The company expects a minimum rate of return of 30% on its investment.

(Consider debtors at sales value.)

5+3=8