INTERMEDIATE EXAMINATION

June 2016

P–8(CAFM)
Syllabus 2012

Cost Accounting and Financial Management

Time Allowed: 3 Hours

Full Marks: 100

The figures on the right-hand margin indicate full marks.

All Sections are compulsory. Each section contains instructions regarding the number of questions to be attempted within the section.

All working notes must form part of the answers.

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

No present value factor table or other statistical table will be provided along with this question paper.

Section A

Question No. 1 is compulsory. Answer ***all*** questions under each sub division.

1. I. Answer the following questions. Each question carries 2 marks. 2×5=10

(i) Calculate the reorder level from the following data:

Lead time : 3 weeks; Safety stock: 100 units; Annual uniform usage : 2,600 units.

(ii) Standard time for a job = 20 hours. Rate per hour = ₹ 2. The actual time taken by a worker is 15 hours. Calculate his earnings under Barth Variable Sharing Plan.

(iii) A Ltd. uses pre-determined overhead absorption rates. In a certain period, actual overheads incurred were ₹ 5 lacs and not mostly related to time. Overheads absorbed were ₹ 1·5 lacs, 50% of unabsorbed overheads was due to faulty planning. How will such under absorption due to defective planning be treated in Cost Accounts?

(iv) B's cash flows are ₹ 1,000 on 01.07.2014; ₹ 1,100 on 01.07.2016; ₹ 1,000 on 01.07.2018; Considering annual rests, interest rate of 10% and using p.v. factor only up to one decimal, calculate the present value of his cash flows as on 01.07.2016.

(v) The current market price and expected year-end dividend of an equity share are ₹ 90 and ₹ 4·50 respectively. The dividend growth rate is expected at 7% annually. Compute the cost of capital under the dividend growth model.

II. State whether the following are true or false: (Legibly write only the question *Roman* numeral and whether true or false). 1×5=5

(vi) When under absorption of overheads is corrected by applying supplementary rates, there is no impact in the current period profits due to under absorption as it is corrected and all overheads are charged in the current period.

(vii) Marginal cost per unit remains constant irrespective of the number of units produced within the normal output level.

(viii) Companies P and Q are competitors for product PQ. P has a higher degree of operating leverage than Q. If demand for PQ decreases, profits of Q will decrease at a slower rate than P.

(ix) The internal rate of return (IRR) assumes that cash flows are reinvested at the firm's cost of capital.

(x) M Ltd. provides free service for its cars for the first year of purchase. The cost of this service for M Ltd. is treated as selling and distribution overhead.

III. Fill in the blanks (Legibly write only the question *Roman* numeral and the content filling the blank): 1×5=5

(xi) In a certain factory, normal capacity was 50000 units. Actual capacity utilization was 52000 units. Fixed production overheads should be absorbed based on __________ capacity.

(xii) X factory outsources the manufacture of a major component ~~to~~ a contractor. The transportation of the component of X factory's premises is borne by X. This transportation cost will be treated as __________ cost (give the element of cost).

(xiii) In the__________ method of pricing material issues, where the price are falling, profits will rise.

(xiv) In India, commercial papers can be issued in multiples of ₹ __________.

(xv) __________ are the rules applied by a country to domestic regulations to promote foreign investment.

IV. Match the following (You may opt to write the *Roman* numeral and the matched alphabet instead of copying contents into the answer books):

1×5=5

(xvi)	Normal Waste	a)	Credit facility is up to 80% of bill value
(xvii)	Salaries of directors	b)	Credit facility is higher than 80% of bill value
(xviii)	Cost of new spare net of cost of reconditioning old spare	c)	Absorbed in cost of production
(xix)	Factoring	d)	CAS-11
(xx)	Forfaiting	e)	CAS-12

Section B

Answer *any three* questions from question numbers 2, 3, 4 and 5.

Each question carries 15 marks.

2. (a) The following information is available to Z Ltd. for the Financial Year ending 31st March, 2016:

Particulars	₹
Direct Material	3,45,000
Direct Wages	3,90,000
Production Overheads (75% variable)	2,40,000
Administration Overheads (75% fixed)	1,20,000
Selling and Distribution Overheads (50% fixed)	1,60,000
Sales — 10000 units	15,50,000
Opening Stock—Nil	
Closing Stock—Finished Goods-5000 units	
No WIP (Opening/Closing)	

For the year 2016-17, it is estimated that:

(i) Output will increase by one-third; Sales quantity will increase by 50% by incurring additional advertisement expenses of ₹ 1,45,200.

Assume that opening stock is first sold before using the current year's output.

(ii) Material prices will increase by 5%.

(iii) Wage rate will increase by 5% while overall direct labour efficiency will decrease by 4%.

(iv) The variable overheads will be at the same unit rates as last year.

(v) Fixed production overheads will increase by 25%.

(vi) Assume that production and sales units were achieved as per budget last year and will be achieved as per estimate this year also.

(vii) The company will revise its selling price in 2016-17 to ₹ 125 per unit. This same selling price will hold for the units sold from the opening stock also.

You are required to prepare a statement showing cost of sales and sales and profit giving effect to the above for the financial year 2016-17. 10

(b) The following items appear in the records of Care Ltd. Compute the amount you would consider under material cost as per CAS-6.

Import Duty	20,000
Insurance	15,000
Labour on self-manufactured primary packing containers	20,000
Factory overheads on self-manufactured packing containers	25,000
Trade discount on purchase of raw material (Purchase was recorded excluding the discount)	45,000
CENVAT credit refundable	20,000
Subsidy received from the Govt. for using pollution-free material	8,000
Subsidy received for generating wind energy	12,000
Purchase Price	8,00,000

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3. (a) XYZ Ltd. has three production departments, X, Y and Z and two service departments, S_1 and S_2. The following figures are available for a certain production period:

Items of Overheads	Amount (₹)
Indirect Wages	16,000
Indirect Materials	12,000
Depreciation—Machinery	30,000
Depreciation—Building	10,000
Rent, Rates and Taxes	10,000
Electric Power for Lighting	1,000
Electric Power for Machinery	15,000
General Expenses	15,000

	Total	X	Y	Z	S_1	S_2
Direct Material (₹)	60,000	20,000	10,000	20,000	6,000	4,000
Direct Wages (₹)	40,000	15,000	15,000	5,000	3,000	2,000
Floor Area (Sft)	50,000	15,000	10,000	10,000	5,000	10,000
Value of Machinery (₹)	3,00,000	80,000	1,00,000	60,000	30,000	30,000
Horse Power (HP) of Machinery	150	60	50	30	5	5
Number of light points	50	15	10	10	10	5
Labour Hours	15,000	5,000	5,000	2,000	1,000	2,000

Prepare a statement showing the distribution of overheads among the production and service departments on the most equitable basis. 10

(b) How should the following items be treated as per CAS 7?

(i) Unavoidable idle time

(ii) Normal idle time

(iii) Abnormal idle time 5

4. (a) The following information is given:

Standard time allowed = 1 hour for 1 unit

Actual time taken by a worker = 32 hours for 40 units

Standard Wage rate: ₹ 20 per unit or ₹ 20 per hour

Calculate the earnings of the worker under—

(i) Taylor's Differential Piece Rate System

(ii) Merrick Differential Piece Rate System

(iii) Gantt Task Bonus Plan (High piece rate = ₹35/unit)

(iv) Halsey Premium Plan

(v) Rowan Plan 10

(b) From the following information, compute the value of direct expenses per 100 bottles according to Cost Accounting Standards:

K Ltd. is a company making special ointments for pain relief. The following data is given:

(i) In order that the ointment does not get sticky on patients' fingers, there is an additive with attractive fragrance, which is mixed with the medicine towards the end of the process before it is sent for packing. The company pays @ ₹ 5,000 per packet for the paste supplied by a contractor. This quantity is sufficient for 50 bottles of ointment. K Ltd. further pays a royalty of ₹ 25 per bottle that uses this paste.

(ii) The special sealing of the bottles is done with manual intervention and the worker is paid at the rate of ₹ 5 per bottle specially sealed.

(iii) The manufacture of the ointment has to ensure precise quantity of various inputs. Computer aided manufacture is used. The software development charges relating to such production is ₹ 0.40 per bottle.

(iv) The Government pays an incentive of ₹ 22 per bottle produced. 5

5. (a) A company requires 1,00,000 units of an item annually. The cost per unit is ₹ 10. Ordering cost is ₹ 500 per order and inventory carrying cost is 50% per unit per annum.

(i) Find the Economic Order Quantity (EOQ).

(ii) The supplier offers a discount of 3% for order quantity 4500-5999 and 3.5% for order quantity 6000 and above. Work out a statement comparing the total inventory management costs for the EOQ, 4500 and 6000 units of order and comment on your findings. Advise the company on how much to order. 10

(b) Write a short note on: (i) Profit Centre and (ii) Responsibility Centre. How do they differ? 5

Section C

Answer *any two* questions from question numbers 6, 7 and 8.

Each question carries 15 marks.

6. (a) The following information is given to you as on 31-03-2016 for a company:

Current Ratio	2.5
Liquid Ratio	1.5
Fixed Assets (net)	1,80,000
Working Capital	60,000
Reserves and Surplus	40,000
Bank Overdraft (Short term)	10,000
Assume that there is no long term loan or fictitious assets	

Make a statement of proprietary fund and match it with fixed assets and as many details of current assets net of current liabilities. 8

(b) A company plans to sell 48000 units next year. The following information is given:

Raw Materials = ₹ 100 (per unit)

Manufacturing expense = ₹ 30 (per unit)

Selling Cost = ₹ 20 (per unit)

Selling Price = ₹ 180 (per unit)

Average Cash balance = ₹ 1,20,000

The duration at various stages is expected to be as follows:

Raw materials stage 2 months

Work in progress 1 month (Raw Materials 100% complete; Manufacturing 25% complete)

Finished goods 1 month

Debtors 1 month

Assume uniform sales of 4000 units per month.

Estimate the gross working capital requirement taking

(i) Debtors at Cost;

(ii) Debtors at Sales Value. 7

7. (a) MN Ltd. wishes to evaluate two mutually exclusive proposals to acquire a machine. Machines M and N are being considered, each costing ₹ 2,00,000 and having an estimated life of 5 years and 4 years respectively. Both have nil salvage value. The anticipated cash inflows after adjustment of taxes for M and N are given below:

End of Year	Machine M	Machine N
1	70,000	1,00,000
2	60,000	90.000
3	60,000	80,000
4	50,000	40,000
5	90,000	Nil

Find the accounting rate of return and net present value for both the machines and advise MN Ltd. which machine should be bought. The required rate of return is 10% p.a.

Present Value factor for 10%:

End of Year	1	2	3	4	5
	.909	.826	.751	.683	.621

8

(b) ABC Ltd. has the following book value capital structure as on 31st March, 2016:

Particulars	**Amount ₹**
Equity share capital	40,00,000
11.5% Preference shares	10,00,000
10% Debentures	30,00,000
	80,00,000

The equity share of the company sells for ₹ 20. It is expected that next year the company will pay a dividend of ₹ 2 per equity share, which is expected to grow at 5% p.a. for ever. Assume a 35% corporate tax rate.

Using book value weight:

(i) Compute weighted average cost of capital (WACC) of the company based on the existing capital structure.

(ii) Compute the new WACC, if the company raises an additional ₹ 20 lakhs debt by issuing 12% debentures, at par ₹ 100 which would result in increasing the expected equity dividend to ₹ 2.40 and leave the growth rate unchanged, but the price of equity share will fall to ₹ 16 per share. 7

8. (a) Calculate the degree of Operating Leverage, degree of Financial Leverage and the degree of Combined Leverage for the following firms and also interpret the result obtained:

	Firm X	Firm Y	Firm Z
(i) Output (Units)	80000	22500	1,50,000
(ii) Variable Cost per unit (₹)	1·50	1·10	1·20
(iii) Fixed Cost (₹)	10,000	20,000	8,000
(iv) Interest on Loan Fund (₹)	6,000	10,000	—
(v) Selling price per unit (₹)	2·50	5·00	1·50

10

(b) What is a Global Depository Receipt (GDR)? List three of its characteristics. 2+3=5