INTERMEDIATE EXAMINATION

December 2017

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 sections are compulsory. Each section contains instructions regarding the number of questions to be answered within the section.
All working notes must form part of the answers.
Wherever necessary, candidates may make appropriate assumptions and clearly state them.
No present value factor table or other statistical table will be provided in addition to this question paper.

Section-A

***Question* 1 is compulsory. Answer *all* questions under each sub-division.**

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

(i) 10000 units of material 'X' are consumed per year having per unit cost of ₹ 20. Cost of processing an order is ₹ 50 while annual interest rate is 5%. If annual carrying cost per unit of material 'X' is 15% (other than interest), **Calculate the** EOQ and number of orders per year.

(ii) Following information is furnished by the Dhoora Ltd:

Production and Sales are 50000 units and 42000 units respectively. Royalty paid on units produced @ ₹ 5 per unit and @ ₹ 7·50 per unit sold. Hire charges of equipment used for production on ₹ 1,80,000 and Design charges 48,000. **Compute** the direct expenses according to CAS-10.

(iii) A work measurement study was carried out in a firm for 10 hours. The information generated was: Units produced 350; Idle time 15%; Performance rating 120%; and Relaxation Allowance 10% of standard time. **What is** the standard time for each unit produced?

Please Turn Over

(iv) Axis Ltd. follows Walter's view of dividend policy. Its earning per share is ₹ 40 and face value of equity share is ₹ 100. It has a rate of return of 20% and capitalization rate is 8%. **What should** be the market price per share if payout ratio is zero?

(v) If current ratio is 2·4 : 1 and net working capital is ₹ 42,000, **find out** the value of current assets and current liabilities.

(II) State **whether the following statements are *True* or *False*:** (Write only the question Roman numeral and whether True or False). 1×5=5

(i) The sum of direct material, direct wages, direct expenses and manufacturing overheads is known as conversion cost.

(ii) If the Profitability Index is more than one, the project should be accepted otherwise rejected.

(iii) The permissible bank borrowings are calculated under Method – I = 0·75 (Current Assets) – Current Liabilities.

(iv) CAS -13 is related to "Pollution Control Cost".

(v) Under Halsey – Weir Plan, bonus equals to $33\frac{1}{3}$ % of wages of the time saved.

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

(i) Maximum Level = (________+Re-order Quantity) – (Minimum Consumption Rate × Minimum Re-order Period).

(ii) Generally cost of retained earnings is equal to / same as cost of ________.

(iii) According to AS-3 (Revised), interest received on investment is an element of cash flow from ________ activities.

(iv) CAS-8 deals with the principles and methods of determining the ________.

(v) The ratio of % change in one variable to the % change in some other variable is defined as ________ in the context of capital structure and finance.

(IV) **Match the following** (You may opt to write the Roman numeral and the matched alphabet instead of copying the contents into the answer book): 1×5=5

	Column A		Column B
(i)	Uniform Costing	(A)	Technique of Costing
(ii)	CAS-9	(B)	Letter of Credit
(iii)	Supplementary Rate	(C)	Valuation of shares
(iv)	Capital Assets Pricing Model	(D)	Over/Under Absorption of overheads
(v)	Working Capital Finance	(E)	Packing Material Cost
		(F)	System of Costing
		(G)	Market Price Per Share

Section-B

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

Each question carries 15 marks.

2. (a) The following are the details of receipts and issues of a material of stores in Pooja Ltd. for the month of October, 2017:

Date of Receipt October, 2017	Units	Rate per unit (₹)	Date of issue October, 2017	Units
4	1800	52	3	1900
8	2500	53	11	2100
16	1600	53·50	17	1700
19	1000	54	21	1600
22	900	55	24	1300
26	2000	56	28	1500

There was 2500 units in stock at 1.10.2017 which was valued at ₹ 51 per unit. Issues are to be priced on the basis weighted average method. The stock verifier of the company reported a shortage of 70 units on 15.10.2017 and 80 units on 31.10.2017. The shortage is treated as inflating the price of remaining material on account of shortage.

You are required to prepare a Stores Ledger Account. 10

(b) What are the basic rules for classification of costs and basis of classification as per CAS-1? 5

3. (a) PARASH LTD. Manufactures 5,000 units of a product per month. The cost of placing an order is ₹ 100. The purchase price of the raw material is ₹10 per kg. The re-order period is 4 to 8 weeks. The consumption of raw materials varies from 100 kg to 450 kg per week, the average consumption being 275 kg. per week . The carrying cost of inventory is 20% per annum. (Assume 52 weeks to a year.)

You are required to calculate:

(i) Re-order quantity

(ii) Re-order level

(iii) Maximum level

(iv) Minimum level

(v) Average stock level (2+2+2+2+1)=9

(b) The standard hours of Job X is 100 hours. The job has been completed by Amar in 60 hours, Abir in 70 hours and Binu in 95 hours. The bonus system applicable to the job is as follows:

Percentage of time saved to time allowed	Bonus
Saving upto 10%	10% of time saved
from 11% to 20%	15% of time saved
from 21% to 40%	20% of time saved
from 41% to 100%	25% of time saved

The rate of pay is ₹ 1 per hour.

***Required*:** Calculate the total earnings of each worker and also the rate of earnings per hour.

2+2+2=6

4. (a) Enumerate the disadvantages of a centralized stores system. 5

(b) List three items to be included and two items to be excluded under the CAS-10 for Direct Expenses. 5

(c) Gamma (India) Ltd. has a unit which manufactures jute bags and export in the European market. It submits the following items of cost and request you to classify these according to function and under the appropriate element of cost:

(i) Product Catalogue

(ii) Nuts and Bolts

(iii) Commission on sales

(iv) Printing and stationary

(v) Secondary packing material used for export delivery. 5

5. (a) There are three production departments and two service departments in a company. The overheads of service departments are charged on percentage basis as under:

Department	Production Departments			Service Departments	
	A	B	C	P	Q
Total Overhead (₹)	9,000	6,000	3,000	702	900
Services provided by P	20%	40%	30%	—	10%
Services Provided by Q	40%	20%	20%	20%	—

Required: Apportion the overhead of service departments to the production departments using Simultaneous Equation Method. 7

(b) Your company is an export-oriented organization manufacturing internal communication equipment of a standard size. The company is to send tender price to foreign buyers of your product. As the Cost Accountant, you are required to help the management in the matter of submission and preparation of the tender. **Prepare a Cost Estimate** based on the following figures relating to year 2017:

Output: 20,000 units

Expenses Incurred	₹		₹
Local Raw Material Consumed	10,00,000	Excise Duty	2,00,000
Imports of Raw Material (Actual Consumption)	1,00,000	Administrative Office Expenses	2,00,000
Direct Labour in Works	10,00,000	Salary of the Managing Director	60,000
Indirect Labour in Works	2,00,000	Salary of the joint Managing Director	40,000
Storage of Raw Material and Spares	50,000	Fees of Directors	20,000
Fuel	1,50,000	Expenses on Advertising	1,60,000
Tools Consumed	20,000	Selling Expenses	1,80,000
Depreciation on Plant	1,00,000	Seles Depot Expenses	1,20,000
Salaries of Works Personnel	1,00,000	Packing and Distribution	1,20,000

(i) Local raw material now cost 10% more.

(ii) A profit margin of 20% on sales is kept.

(iii) The Government Grants subsidy of ₹100 per unit on export. 8

Section C

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

Each question carries 15 marks

6. (a) From the information given below **you are required to prepare** a Cash Flow Statement for the year ended 31st March, 2017:

Balance Sheets

As at 31st March, 2016 and 2017

Particulars		2017 ₹	2016 ₹
I. Equity And Liabilities			
(1) Shareholders' Fund			
(a) Paid up Share Capital		90,000	70,000
(b) Reserves and Surplus:			
Profit & Loss A/c		10,000	7,000
(2) Non-Current Liabilities			
Secured Loan		40,000	—
(3) Current Liabilities			
(a) Trade Payables		37,000	14,000
(b) Short-term Provision : Tax Provision		3,000	1,000
	Total	1,80,000	92,000
II. Assets			
(1) Non-Current Assets			
(a) Fixed Assets			
Tangible: Plant & Machinery		92,000	50,000
(2) Current Assets			
(a) Inventory		40,000	15,000
(b) Trade Receivables		20,000	5,000
(c) Cash and Cash Equivalents		24,000	20,000
(d) Other Current Assets: Prepaid Expenses		4,000	2,000
	Total	1,80,000	92,000

Profit & Loss Account

For the year ended 31st March, 2017

Particulars	₹	Particulars	₹
To Opening Inventory	15,000	By Closing Inventory	40,000
To Purchase	98,000	By Sales	1,00,000
To Gross Profit c/d	27,000		
	1,40,000		1,40,000
To General Expenses	10,000	By Gross Profit b/d	27,000
To Dep. On plant & Machinery	8,000		
To Provision for Tax	5,000		
To Net Profit c/d	4,000		
	27,000		27,000
To Dividend	1,000	By Balance b/f	7,000
To Balance c/f	10,000	By Net Profit b/d	4,000
	11,000		11,000

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(b) The details of income and financial position of Morarka Ltd. are as follows:

Particulars	Amount ₹
Sales (Net)	1,50,000
Less: Cost of Sales	1,00,000
	50,000
Less: Operating Expenses (including ₹ 6,000 p.a. for Depreciation)	40,000
Net Profit	10,000
***Assets*:**	
Cash in hand	12,000
Debtors	60,000
Stock at cost	24,000
Fixed Assets (net)	1,04,000
Total Assets	2,00,000
Liabilities	
Creditors	38,000
Debentures	40,000
Share Capital	1,00,000
Surplus	22,000
Total Liabilities	2,00,000

The Company makes all sales on credit.

Compute the following ratios:

(i) Current Ratio

(ii) Liquidity Ratio

(iii) Inventory Turnover

(iv) Average Collection Period

(v) Operating Ratio 5

7. (a) The following information is available for SORTEX LTD.

Installed capacity	4,000 units
Actual production and sales	75% of the capacity
Selling price	₹ 30 per unit
Variable Cost	₹15 per unit
Fixed Cost:	
Under situation I	₹ 15,000
Under situation II	₹ 20,000
Tax rate	40%

Capital Structure:

	Financial Plan	
	A	B
	₹	₹
Equity	10,000	15,000
Debt (Rate of interest at 20%)	10,000	5,000
	20,000	20,000

Required: Calculate the degree of operating leverage (DOL), Degree of Financial Leverage (DFL) and Degree of Combined Leverage (DCL) Under situation I and situation II and Financial Plans A and B. 8

(b) Royal Industries Ltd. currently makes all sales on credit and offers no cash discount. It is considering a 2 per cent discount for payment within 10 days (terms offered are '2/10 net 30'). The firm's current average collection period is 30 days, sales are 10000 units, selling price is ₹ 100 per unit and variable cost per unit is ₹ 50; its existing total fixed costs are ₹ 2,00,000 which are likely to remain unchanged with production/sales volume of 12000 units.

It is expected that the offer of cash discount will result in an increase in sales to 11,000 units and the average collection period will be 20 days as a result. However, due to increased sales, increased working capital required will be for ₹ 20,000 (without taking into account the effect of debtors).

The total sales on cash discount will be 50% and 20% is the required return on investment. ***Required***: Advise the Company on whether the proposed cash discount should be offered to its customers.

(Assume 360 days to a year.) 7

8. (a) ABC Limited wishes to raise additional finance of ₹ 10 lakhs 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:

(1) Debt/equity Mix	30% / 70%
(2) Cost of debt upto ₹ 1,80,000 Cost of debt beyond ₹ 1,80,000	10% (Before tax) 16% (Before tax)
(3) Earnings per share	₹ 4
(4) Dividend payout	50% of earnings
(5) Expected growth rate in dividend	10%
(6) Current market price	₹ 44
(7) Tax rate	35%

You are required:

(a) To determine the pattern for raising the additional finance.

(b) To determine the post-tax average cost of additional debt.

(c) To determine the cost of retained earnings and cost of equity.

(d) Compute the overall weighted average after tax cost of additional finance. 8

(b) Amul Ltd. is considering two mutually exclusive proposals, X and Y.

Proposal X will require the initial cost of ₹1,40,000 with no salvage value, and will also require an increase in the level of inventories and receivables of ₹ 60,000 over its life. The project will generate additional sales of ₹ 1,30,000 and will require cash expenses of ₹ 40,000 in each of its 5 year life. It will be depreciated on straight line method and the same is accepted for tax purposes.

Proposal Y will required an initial capital of ₹ 2,00,000 with no salvage value, and will be depreciated on straight line basis. The earnings before depreciation and taxes during its 5 year life are:

Year 1	Year 2	Year 3	Year 4	Year 5
₹ 70,000	₹ 76,000	₹ 80,000	₹ 90,000	₹ 92,000

The Company has to pay corporate income tax at the rate of 35 per cent, and is evaluating projects with 10 per cent as the cost of capital.

***Required*:** Which project is acceptable under the NPV method?

Table showing present values of ₹1 discount rate -10% are as follows:

	End of year				
	1	2	3	4	5
PVIF (at10 %)	0·909	0·826	0·751	0·683	0·621
PVIFA (at 10%)				3·170	3·791

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