INTERMEDIATE EXAMINATION

December 2016

CHN-P-8(CAFM)
Syllabus 2012

Cost Accounting and Financial Management

Time Allowed: 3 Hours

Full Marks: 100

The figures on the right margin indicate full marks.

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

All workings must form part of the answers.

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

No present value table or any other table will be provided with this question paper.

Section A

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

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

(i) In a factory, number of employees at the beginning of 2015 was 380 and at the end 420. During the year 18 employees resigned, 6 were discharged and out of them 16 were replaced. Find the Labour Turnover Ratio of the factory under Flux Method.

(ii) At EOQ total ordering cost per annum is ₹ 4,000. Find EOQ in units if carrying cost per unit per annum is ₹ 2.

(iii) Find the actual overhead for the month of October 2016, when actual machine hours worked is 10000 and there is under-recovery of overhead of ₹ 30,000 by using machine hour rate of ₹ 30.

(iv) If Discounted Pay Back period is 5 years and cost of capital is 12%, find IRR when the life of the project is also 5 years.

(v) You find that a firm has margin of safety = 25% of sales. Find the Degree of Operating Leverage.

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

(i) Blanket overhead absorption rate is also known as single factory wide overhead absorption rate.

(ii) The cost of in-warranty after sale service is treated as selling and distribution overhead.

(iii) JIT reduces the working capital requirement.

(iv) The shares underlying the GDR carry voting rights.

(v) Cost of capital is required for calculating IRR.

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

(i) According to Net Income approach, greater the proportion of debt capital, _____shall be the overall cost of capital.

(ii) Most of the venture capital funds provide financial support to entrepreneurs in the form of _____.

(iii) The charging of discrete, identifiable items of cost to cost centers is called _____.

(iv) A _____is a record which contains the relevant details pertaining to the plants and equipments.

(v) CAS-2 deals with the principles and methods of determining the _____ of a manufacturing facility of an entity.

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

(i)	Bin Card	(a)	Dividend Yield
(ii)	Opportunity cost	(b)	CAS 16
(iii)	Joint costs	(c)	Cost of alternative resources
(iv)	Present value of cash inflows/Present value of cash outflows	(d)	Labour turnover

(v)	Dividend/Stock price	(e)	Profitability Index
		(f)	Value of alternatives forgone by employing resources in a specific manner
		(g)	Perpetual inventory system
		(h)	CAS 19

Section B

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

Each question carries *15* marks.

2. The Modern Ltd. has three production departments and two service departments. The following are the extracts from the records of the company for the year 2016:

	₹	Production			Service	
		X	Y	Z	P	Q
Rent and Rates	26,400					
Lighting	5,000					
Direct Wages ₹		40,000	50,000	25,000	3,000	2,000
Indirect Wages (allocated) ₹		7,136	8,359	3,455	400	250
Power	12,000					
Direct Materials ₹		80,000	40,000	50,000		
Machine Hours		3000	8000	4000		
Light Points		25	35	25	5	10
Floor Area sq. mts		2400	1200	3000	1800	4800
Machine Value ₹		1,00,000	2,00,000	80,000		
Service Departments are providing services to others as follows:						
P(%)		20	30	50		
Q(%)		20	50	10	20	

Depreciation is 10% of Machine Value.

(a) Calculate Machine Hour Rate for each production department. 9

(b) Calculate Factory Cost of articles A and B using the following additional information: 6

Article	A	B
Prime Costs ₹	12,000	3,000
Machine hours consumed in Production Departments		
X	400	
Y	240	300
Z		100

3. (a) From the following details you are required to value the closing inventory at the end of Day 5 under (i) FIFO method, (ii) LIFO method and (iii) Weighted Average method of pricing issues.

Opening Balance: Nil.

Day 1 Received 2000 units @ 12 per unit;

Day 2 Received 3000 units @ 13 per unit;

Day 3 Issued 1000 units;

Day 4 Received 1000 units @ 14 per unit;

Day 5 Issued 3000 units. 3×3=9

(b) Your factory holds 600kg of raw materials in store at the beginning of the month of December 2016. You are provided with the following further information:

Per day consumption of material is constant at 50kg and the time span between placing orders and receiving materials varies within 6-10 days, ordering cost per order is ₹ 4,000 and carrying cost per kg per day is ₹0·064.

(i) At what level of stock you should place your next order?

(ii) What quantity you should order each time? and

(iii) At what time interval you would continue placing orders for materials? 2+2+2=6

4. (a) Four men work as a group. When weekly production of the group exceeds standard production of 250 units per hour, bonus is payable to each member of the group as computed below:

Bonus for the week = hours worked in the week × half the percentage by which group production exceeds the standard × weighted average hourly wage rate of the group

Bonus rate per hour for each member = half the percentage by which group production exceeds the standard × hourly wage rate

Following is the record of the group for a week:

Members of the group	Hourly wage rate (₹)	Hours worked
A	48	40
B	40	48
C	52	50
D	56	46

Actual Production for the week: 55200 units

(i) Compute the weighted average hourly wage rate for the week.

(ii) Compute the hourly bonus rate for the group and for each employee.

(iii) Compute the total bonus for the group for the week.

(iv) Compute the total pay for the week for each of the members of the group. 1+(2+2)+1+4=10

(b) You have been provided with the following information on costs related to a machine:

(i) Annual standing charges: ₹ 1,40,000.

(ii) Wages of operator is ₹ 240 for 8 hours' day. The operator attends one machine when it is under set up and three machines while under operation.

(iii) Estimated production hours 3600 pa.

(iv) Estimated set up time: 400 hours pa.

(v) Power consumption: ₹ 5 per hour of operation

Compute machine hour rates for production and for set up and find the costs of the following Jobs:

	Job 1103	Job 1043
Set up time Hours	50	20
Operation time Hours	150	180
Total Hours	200	200

2+3=5

5. (a) Your advertising firm has got an offer for an advertisement job. You are required to submit a quotation for the job for which relevant data are provided below:

Material requirements for the job: (Amount in ₹)

Paper 12 reams at a price of ₹ 1,500 per ream

Paints, ink and other printing materials 12,000

Binding materials and other consumables 8,000

Primary packing materials 6,000

Labour requirements:

Services of following employees will be required for the job:

	Required hours	[Monthly Pay (₹)]
Artist	80	18,000
Painter	96	10,000
Copywriter	60	12,000
Client servicing	120	8,000

Further, you need to hire service of a photographer for 7 days at a charge of ₹ 1,500 per day. Besides, overhead costs are to be considered as follows:

Production overheads are 40% of Direct Cost and Selling & Distribution Overheads are 25% of Production Cost. You keep 12·5% margin on quoted price. Your firm works 20 days a month and 8 hours a day. 12

(b) How do you treat normal idle time in Cost Accounting as per CAS-7? 3

Section C

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

Each question carries *15* marks.

6. From the financial statements for the year ended on 31-03-2016 of Mountain Ltd. you collected the following information:

Particulars	Amount in ₹
Profits before tax	2,60,000
Depreciation, Amortization and Impairment	60,000
Loss on sale of machine debited to Profit and Loss A/C	22,000
Provision for Tax	1,60,000
Preliminary expenses written off	8,000
Interest on Debenture	12,000
Tax paid	1,10,000
Dividend paid (last year)	15,000
Purchase of Fixed Assets	2,50,000
Purchase of Investments	75,000
Sale proceeds of Fixed Assets	1,50,000
Loan taken	3,00,000
Increase in Receivables	30,000
Decrease in Creditors	16,000
Cash and cash equivalents at the beginning of the Financial Year	60,000
Increase in Bills Payable	30,000
Decrease in Stocks	64,000

(a) Prepare cash flow statement for the year ended on 31-03-2016. 11

(b) Cash and cash equivalents of ₹ 50,000 are considered comfortable for the similar firms in the industry. Do you think the financing activity of the firm is managed with prudence? 4

7. (a) Examine the relevance of dividend decision for a normal firm (r = k) under Walter's model. 3

(b) Land Company Ltd. has randomly fluctuating cash balance managed under Miller-Orr model. You are required to calculate (a) the Return Point and (b) the Upper Limit of the cash balance and (c) to state their relevance to cash management actions. The size of sale of marketable securities in each transaction is ₹ 44,814 as per Miller-Orr model. The lower Limit fixed by management is ₹ 40,000. Transaction cost per transaction is ₹ 1,600. The standard deviation of the change in daily cash balance is ₹ 5,000. Annual yield available on marketable securities is 12% for 360 days a year. 2+2+2=6

(c) At zero per cent debt, the overall cost of capital of a company is 12%. Using NI and NOI approaches find cost of equity and overall cost of capital of the company, if cost of debt capital is 9% and debt to total capital ratio is 60%. 6

8. (a) Star Brothers currently sells at a cash discount on terms of '1/10, net 30' (Credit period 30 days, 1% discount if paid within 10 days), where 20% of the customers avail discount. The firm is considering to increase the rate of discount to 2%. It expects rise in sales by 10%, fall in bad debt from 2% to 1% of sales and 80% of the customers to avail discount. Provided that existing annual sales are ₹6,00,000 (all sales are on credit), proportion of variable cost to sales is 0·8 and opportunity cost of funds is 12% pa. [Assume 360 days a year]

Find: (i) Average collection period before and after the change in discount policy.

(ii) Saving in expected bad debt and additional discount costs.

(iii) Saving in opportunity cost of investment in receivables.

(iv) Advise whether discount rate should be increased as proposed. 2+2+3+2=9

(b) Information about two projects are given below:

(₹ '000)

Project	A	B
Cash Flows:		
Yr. 1	50	116
Yr. 2	300	50
Yr. 3	360	20
Yr. 4	208	–
Initial Investment	535	135
Additional information:		
PV of project A Cash Flows at 22% rate of discounting	535	
PV of project B Cash Flows at 25% rate of discounting		135

Cost of capital is 10% pa. Decide which project is more desirable based on NPV and IRR. 6