

INTERMEDIATE EXAMINATION

December 2014

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.

This paper contains three questions. 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.

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

1. Answer *all* questions:

2×10=20

State with reason, your answers to questions 1.(a) to 1.(d) under the Generally Accepted Cost Accounting Principles & Cost Accounting Standards:

- (a) Material with invoice value ₹ 10,000 was received in the Stores Dept. The transport cost was ₹ 200. Since the material leaked in transit, damage to other goods of ₹ 350 had to be paid to the transporter. What would be the material cost?
- (b) Bonus at 10% of salary is paid to the foreman who supervises five different production shops producing five different products. How will the bonus be treated in the Cost Accounts?
- (c) A, B, C and D are products produced by a company. Power is supplied to these production units from the in-house power generator. Cost of power generated for a certain period was ₹ 1,00,000. Additionally, the committed cost of standby power shop utilities was ₹ 25,000. The sales value of A, B, C and D were equal and the units produced were in the ratio 1:2:2:3. What amount of power cost will be part of cost of production for each of A, B, C and D? One unit of power is consumed per unit of production of A, B, C & D.
- (d) Products X, Y and Z are manufactured by XYZ Company. Special permit charges of ₹ 12,00,000 are paid for X and renewable every 4 years. How will the permit charges be treated in Cost Accounts?
- (e) Prime Cost = ₹ 12,50,000; Works Cost = ₹ 20,00,000 and office overheads are 30% of factory overheads. What is the Cost of Production?
- (f) The variable and semi variable costs of producing 50,000 units are ₹ 6 per unit and ₹ 12 per unit respectively. If at 20,000 units, these total costs add up to ₹ 4,80,000, what is the amount of fixed cost component of the semi variable cost?
- (g) M. Ltd. does not use any debt in its capital structure. The company has earnings before interest and tax of ₹ 2,00,000 per annum and the capitalization rate is 12%. Assume corporate tax of 30%. Calculate the value of the firm according to MM Hypothesis.
- (h) Ascertain the discounted value at 10% p.a. at the end of year 1 of an investment of ₹ 2,00,000 to be made at the end of year 2 and ₹ 3,00,00 made immediately.

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- (i) The proprietor's fund is ₹ 45,00,000 and ratio of fixed assets to proprietor's funds is 0.75. Find the amount of net working capital.
- (j) What is the acceptance rule for a project under the internal rate of return parameter?

2. Answer any three questions:

16×3=48

- (a) (i) The standard time per unit is 10 minutes. Time available in a day is 8 hours. Hourly rate of labour is fixed on a piece rate of ₹ 5. X produces 60 units a day and Y produces 72 units a day. What will be each of their daily earnings under Piece-rate and Rowan Scheme? 4
- (ii) How will you treat the different types of idle time cost? 4
- (iii) The following details are available relating to a consignment of 1,200 kgs of material X despatched by the supplier on an order:
- (a) Basic Invoice price = ₹ 20 per kg (without considering trade discount)
- (b) Sales Tax = 8% of invoice price
- (c) Trade Discount 10% on invoice price
- (d) Insurance = ₹ 1,000
- (e) Delivery charges = ₹ 250
- (f) Cost of containers: ₹ 600 per container; Each container holds 50 kg of material. When containers are returned within 6 weeks, rebate allowed is ₹ 400 per container. Containers are normally returned on time. There is no sales tax, discount, insurance or delivery charge applicable to the containers. Material X is supplied in containers. Container Costs are paid separately.
- (g) Two containers were lost in transit. This is considered abnormal.
- (h) One container of material was rejected after receipt, on inspection and discarded along with the material, (considered normal).
- (i) Three containers were damaged in transit/loading/unloading before they reached the stores. No material was useable from these. This is a normal loss in every consignment of 24 containers.

Present a statement showing the itemwise treatment of the above, stating your remarks for each, in accordance with CAS for material cost and arrive at the final cost (₹/kg) of the material to be used to record the value of receipts in the stores ledger.

8

- (b) (i) PQ Ltd. has two production shops P and R manufacturing products 'PDT' and 'RS' respectively. Staff X, Y and Z work in shop P, staff R and S work in shop R and foreman F supervises shops P and R. 'A' is the accounts assistant in the Accounts Department who does the accounting and the payment.

Salesmen M and N market products PDT and RS respectively. The company pays the staff at certain specified rates for the hours worked. The following information is given:

Sl. No.	Details	X	Y	Z	R	S	F	A	M	N
I	Total hours worked as per time sheet	1440	1440	1340	1640	1640	1600	1000	600	600
II	Overtime hours included in I				50	50	50			
III	Night Shift hours (included in I above, in addition to II)	20	20	20	150	150	170			
IV	Normal wage rate per hour (₹/hr)	40	40	40	40	40	100	80	65	75
V	Overtime allowance ₹/hr (in addition to IV)				20	20	30			
VI	Night Shift Allowance ₹/hr (in addition to IV)	30	30	30	30	30	45			
VII	Idle time during the day due to sudden unexpected overhaul (hours included in I above)	70	70	70	70	70	70			

Additional Information:

All the night shift and overtime done by X, Y, Z, R, S and F were done only in shop P due to power failure during the normal hours.

Salary of A will be in the ratio 5:3 for products PDT and RS respectively.

Present a statement showing the item-wise amounts that you would include under Direct Labour and appropriate overhead for each type of product. Comment on the treatment of the overhaul cost as per item VII above.

13

(ii) What are defectives? How would you treat them in Cost Accounts?

3

- (c) (i) A manufacturing company buys its monthly requirement of 7500 units of material in 10 equal instalments every year. Purchase cost per unit is 15 and ordering cost is ₹ 450 per order. Inventory carrying cost is 15% p.a.

At what quantity of purchase will the ordering costs equal the inventory carrying costs?

What is the total annual cost under the prevailing inventory policy?

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If the supplier is willing to offer a discount of 3% on supplies more than 22,500 per order, what would you recommend as the revised order quantity? Evaluate by comparison with the option of ordering at economic order quantity. 3+2+3=8

(ii) The following information relates to the activities of production Dept. M of MTH Ltd. for Nov 2014:

Materials Consumed: ₹ 3,83,000; Direct labour: ₹ 5,74,000; Factory overhead chargeable to Dept. M: ₹ 2,75,760; Labour hours worked: 18,384 hours; Machine hours: 3064 hours;

One job order carried out in Dept. M has the following details:

Material Consumed: ₹ 11,000; Direct Labour Cost = ₹ 19,000; Direct labour hours: 540 hours;

Machine hours worked: 85 hours. Find the amount of factory overheads for the job under the following methods of overhead absorption: % of direct material cost, % of direct labour cost, % of prime cost, direct labour hour rate and machine hour rate. 8

(d) (i) A product passes through two processes, machining and finishing. Each is a cost centre. 1000 kgs of raw material (i.e. 100 pieces) are machined in a production period. 5% of the input in kgs is the normal machining loss in the form of machining waste, but 100 pieces come out of the process. There is a further loss of 4% in the Finishing process from the weight of each piece that was sent in. 10% of the number of pieces were finally scrapped and sold at ₹ 25 piece. Some of the expenses incurred are listed below:

(a) For every 100 pieces of input, the machining dept. uses a special cleaning material pack which is purchased at a base price of ₹ 10,000; VAT 14.5%. The additional cost of transporting it to the shop floor is ₹ 1,200 per pack.

(b) There are two special computers used for designing specifications in the machine shop. A computer professional who is on a monthly salary of ₹ 30,000 attends to the repairs and maintenance of this machine and 19 other machines in the company. The company feels it is not economical to establish a procedure to time his work on various machines since log of computer down-time is not maintained.

(c) The Finishing Department hires special equipment at ₹ 25,000 per production period.

(d) Since the Finishing Dept. did not finish on time, 15,000 was payable to the customer as penalty.

Present a statement showing the direct expenses of each department—Machining and Finishing. What will be the components of direct expenses per piece and per kg of the final product relating to the given information? Present your answer in line with the disclosure requirement as per CAS 10. 8

(ii) What is imputed cost? Give an example of imputed cost. Explain its position in a product cost sheet and in the decision making evaluation process. 4

- (d) (iii) A firm has purchased a plant to manufacture a new product. The cost data are given below:

Estimated annual sales	36,000 units
Material	₹ 4 per unit
Direct labour	₹ 0.6 per unit
Overheads – Manufacturing	₹ 24,000 p.a.
Administrative expenses	₹ 28,800 p.a.
Selling Expenses	15% of sales

Calculate the selling price if profit per unit is ₹ 1.50. Assume whatever is produced is sold.

4

3. Answer any two questions:

16×2=32

- (a) (i) From the following details, find out the working capital requirements of G. Ltd. on cash cost basis:

Sales (at 3 months' credit)	₹ 60,00,000
Material Consumed (Suppliers extend 2 months' credit)	₹ 18,00,000
Wages paid (one month in arrear)	₹ 11,40,000
Cash Manufacturing expenses outstanding at the year end (cash expenses are paid one month in arrear)	₹ 90,000
Total Administrative expenses (paid as above)	₹ 4,20,000
Sales Promotion expenses (paid one month in advance)	₹ 2,70,000

It keeps two months' stock of raw materials, one month's stock of finished goods and a cash balance of ₹ 2,00,000. There is no work-in-progress.

8

- (ii) The following is the capital structure of P Ltd. as on 31st March, 2014:

6,00,000 equity shares at ₹ 10 each fully paid

10,000 9% preference shares of ₹ 100 each fully paid

30,000 12% debentures of ₹ 100 each

The equity share sells at ₹ 20 per share. The dividend expected next year is ₹ 2.5 per share, which is expected to grow at 5% per annum forever. Corporate tax rate is 30%.

- (a) Compute the weighted average cost of capital based on the existing capital structure.
- (b) If the company raises an additional debt of ₹ 25,00,000 by issuing 14% debentures, resulting in increasing the expectation on equity dividend to ₹ 2.70 per share and leaving the growth rate unchanged and the fall in equity share price to ₹ 18 per share, find the revised weighted average cost of capital.

8

Please Turn Over

- (b) (i) Lokesh Ltd. is considering buying a machine costing ₹ 15,00,000 which yields the following annual income:

End of year	1	2	3	4	5
Annual Income after Depreciation but before tax	3,50,000	3,72,000	3,10,000	1,75,000	1,10,000
P.V. factor at 12% of ₹ 1	0.893	0.797	0.712	0.636	0.567

Corporate tax rate applicable is 30%. Depreciation is on straight line basis for 5 years. There is no scrap value. Normal rate of return is 12%. Round off calculations to the nearest rupee and calculate:

- (a) Pay-back period
(b) Discounted pay back period
(c) Net Present Value
(d) Profitability Index. 8
- (ii) What are the assumptions of the Modigliani-Miller theory on capital structure and the overall cost of capital? 8
- (c) (i) The following information is given to you:

Gross Profit	₹ 1,08,000
Shareholders' funds	₹ 6,00,000
Gross Profit Margin	25%
Ratio - Credit Sales to total sales	80%
Ratio - Total Turnover to Total Assets	0.3 times
Ratio-Closing Inventory to Total Sales	1/5 times
Average debtors	20 days
Current ratio	1.5
Ratio-Long Term Debt to equity	80%
(Use 360 days per year for calculations)	

Find the following:

- (a) Fixed Assets turnover ratio
(b) Cash/Bank Balances
(c) Current Liabilities
(d) Closing Inventory
(e) Debtors
(f) Cash Sales 8
- (c) (ii) Explain the concepts of operating and financial leverage and the EBIT-EPS indifference point. What financial plan would you opt for when EBIT is (i) above, (ii) at and (iii) below the indifference point? 8