

## **Paper 10 – Cost & Management Accountancy**

## PTP\_ Intermediate\_Syllabus 2012\_Dec2015\_Set 3

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The following table lists the learning objectives and the verbs that appear in the syllabus learning aims and examination questions:

	<b>Learning objectives</b>	<b>Verbs used</b>	<b>Definition</b>
<b>LEVEL B</b>	KNOWLEDGE	List	Make a list of
	What you are expected to know	State	Express, fully or clearly, the details/facts
		Define	Give the exact meaning of
		COMPREHENSION	Describe
	What you are expected to understand	Distinguish	Highlight the differences between
		Explain	Make clear or intelligible/ state the meaning or purpose of
		Identify	Recognize, establish or select after consideration
		Illustrate	Use an example to describe or explain something
		APPLICATION	Apply
	How you are expected to apply your knowledge	Calculate	Ascertain or reckon mathematically
		Demonstrate	Prove with certainty or exhibit by practical means
		Prepare	Make or get ready for use
		Reconcile	Make or prove consistent/ compatible
		Solve	Find an answer to
		Tabulate	Arrange in a table
	ANALYSIS	Analyse	Examine in detail the structure of
	How you are expected to analyse the detail of what you have learned	Categorise	Place into a defined class or division
		Compare and contrast	Show the similarities and/or differences between
Construct		Build up or compile	
Prioritise		Place in order of priority or sequence for action	
Produce		Create or bring into existence	

**Paper – 10: Cost & Management Accountancy**

**Time Allowed: 3 Hours**

**Full Marks:100**

**QUESTION 1, which is compulsory.**  
**Section-A has three questions, Attempt any two.**  
**Section-B has three questions, Attempt any two.**  
**Section-C has four questions, Attempt any three.**  
**(Working Notes should form part of the answer.)**

**1. Answer all questions.**

**[2x10=20]**

**(a)** The cost data pertaining to Product "X" of Xee Ltd. are as follows:

Maximum capacity	30,000 units
Normal capacity	15,000 units
Increase in inventory	1,880 units
Variable cost per unit	₹ 12
Selling price per unit	₹ 50
Fixed manufacturing overhead costs	₹ 3,60,000

If the profit under Absorption costing method is ₹ 1,01,000, Calculate the profit under Marginal costing.

**(b)** A Ltd. is preparing its cash budget for the period. Sales are expected to be ₹ 1,00,000 in April 2015, ₹ 2,00,000 in May 2015, ₹ 3,00,000 in June 2015 and ₹ 1,00,000 in July 2015. Half of all sales are cash sales, and the other half are on credit. Experience indicates that 70% of the credit sales will be collected in the month following the sale, 20% the month after that, and, 10% in the third month after the sale. Calculate the budgeted collection for the month of July 2015.

**(c)** During the month of March, 560 kg. of material was purchased at a total cost of ₹ 15,904. The stocks of material increased by 15 kg. It is the company's policy to value the stocks at standard purchase price. If the material price variance was ₹ 224 (A). Estimate the standard price per kg. of material.

**(d)** List the non-cost considerations in a shut-down or continue decision.

**(e)** A Company Operates throughput accounting system. The details of product A per unit are as under:

Selling price	₹40
Material Cost	₹10
Conversion Cost	₹15
Time on Bottleneck resources	10 minutes

What will be the return per hour for product A?

**(f)** Whether Financial Position and Ratio Analysis [Part D, Para 4] is to be computed based on Cost record data or audited financial data?

**(g)** How to identify products covered under 4-digit CETA Code as mentioned in the Rules?

**(h)** What are the types of elasticity of Demand?

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- (i) State the term Temporary Monopoly.
- (j) The Demand and Supply function under perfect Competition are  $y=16-x^2$  and  $y=2x^2+4$  respectively. Find the Market Price.

### SECTION A

**Answer any two questions from this section.**

**2. (a)**

- (i) State the problems associated with Throughput Accounting. 3
- (ii) The share of total production and the cost-based fair price computed separately for each of the four units in industry are as follows:

Units	A	B	C	D
Share of Production (%)	40	25	20	15
Direct Material	300	360	340	380
Direct Labour	200	240	280	320
Depreciation	600	400	320	200
Other Overheads	600	600	560	480
	1,700	1,600	1,500	1,380
20% Return on Capital Employed	1,260	860	700	460
<b>FAIR PRICE</b>	<b>2,960</b>	<b>2,460</b>	<b>2,200</b>	<b>1,840</b>
Capital Employed per unit				
Net Fixed Assets (₹ per unit)	6,000	4,000	3,200	2,000
Working Capital (₹ per unit)	300	300	300	300
Total Capital (₹ per unit)	6,300	4,300	3,500	2,300

Required:

What should be the uniform price fixed for the product of the industry? 5

- (iii) MAGATRON LTD. produces and sells four products A, B, C and D. Details of the four products and relevant information are given below for week ended March 29, 2015:

Products	A	B	C	D
Output (units)	120	100	80	120
Cost per unit (₹)				
Direct Material	40	50	30	60
Direct Labour	28	21	14	21
Machine-hours (per unit)	4	3	2	3

The four products are similar and are usually produced in production runs of 20 units and sold in batches of 10 units.

The production overheads during the period are as follows:

Particulars	₹
Factory works expenses	20,860
Set up costs	10,500
Stores receiving	7,200
Inspection/Quality control	4,200
Material handling and dispatch	9,240

The production overhead is currently absorbed by using a Machine-hour rate and the company wishes to introduce Activity Based Costing (ABC) system and has identified major cost pools for production overheads and their associated cost drivers.

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Information in these activity cost pools and their drivers is given below:

Activity Cost Pools	Cost Drivers
Factory Works Expenses	Machine-hours
Set up costs	Number of production runs
Stores receiving	Requisition raised
Inspection/Quality Control	Number of production runs
Material handling & dispatch	Number of orders executed

The number of requisitions-raised on the stores was 20 for each product and number of orders executed was 42, each order being for a batch of 10 of a product.

Requirements:

- (a) Total cost of each product assuming the absorption of overhead on Machine-hour basis.
- (b) Total cost of each product assuming the absorption of overhead by using Activity Based Costing.
- (c) Show the differences between (i) and (ii) and Comment. [3+6+2+1=12]

### 2. (b) (i)

In manufacturing the main product A, a company processes, the resulting waste material into two by – products M<sub>1</sub> and M<sub>2</sub>. Using the method of working back from sales value to an estimated cost, you are required to prepare a comparative profit and loss statement of the three products from the following data:

- (i) Total cost upto separation point was ₹ 1,36,000

	A	M <sub>1</sub>	M <sub>2</sub>
(ii) Sale (all production)	₹3,28,000	₹32,000	₹48,000
(iii) Cost after separation	---	9,600	14,400
(iv) Estimated net profit percentage to sale value	---	20%	30%
(v) Estimated selling expenses as percentage of sale value	20%	20%	20%

[6]

### 2. (b) (ii)

Messrs. Essbee Ltd. maintain Integrated Account of Cost and Financial Accounts. From the following details write control accounts in the general ledger of the factory and prepare a trial balance:

	₹
Share Capital	3,00,000
Reserve	2,00,000
Sundry Creditors	5,00,000
Plant and Machinery	5,75,000
Sundry Debtors	2,00,000
Closing Stock	1,50,000
Bank and Cash Balance	75,000
Transactions during the year were as follows:	
Stores purchased	10,00,000
Stores issued to production	10,50,000
Stores in hand	95,000
Direct wages incurred	6,50,000
Direct wages charged to production	6,00,000
Manufacturing expenses incurred	3,00,000
Manufacturing expenses charged to production	2,75,000
Selling at distribution expenses	1,00,000

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Finished Stock production (at cost)	18,00,000
Sales at selling price	22,00,000
Closing stock	95,000
Payment to Creditors	11,00,000
Receipt from Debtors	21,00,000

[10]

2. (b) (iii) State the practical difficulties in installing a costing system.

[4]

2. (c) (i)

Goodluck Ltd. is currently operating at 75% of its capacity. In the past two years, the levels of operations were 55% and 65% respectively. Presently, the production is 75,000 units. The company is planning for 85% capacity level during 2014 – 2015. The cost details are as follows:

	55% (₹)	65% (₹)	75% (₹)
Direct Materials	11,00,000	13,00,000	15,00,000
Direct Labour	5,50,000	6,50,000	7,50,000
Factory Overheads	3,10,000	3,30,000	3,50,000
Selling Overheads	3,20,000	3,60,000	4,00,000
Administrative Overheads	1,60,000	1,60,000	1,60,000
	24,40,000	28,00,000	31,60,000

Profit is estimated @ 20% on sales.

The following increases in costs are expected during the year:

	In percentage
Direct Materials	8
Direct Labour	5
Variable factory overheads	5
Variable selling overheads	8
Fixed factory overheads	10
Fixed selling overheads	15
Administrative overheads	10

Prepare flexible budget for the period 2014-2015 at 85% level of capacity. Also ascertain profit and contribution. [8]

2. (c) (ii)

A business produces 200 units of a product by making the following expenditure –

	₹
(i) Materials	30,000
(ii) Labour	20,000
(iii) Factory overhead	4,000
(iv) Administrative Overhead	5,754
(v) Selling and distribution overhead	1,500

The products are sold at a price of ₹ 400 per unit.

The above expenditure are classified into fixed and variable as follows –

	Fixed	Variable
(i) Materials	Nil	100%
(ii) Labour	50%	50%
(iii) Factory overhead	25%	75%
(iv) Administrative Overhead	100%	Nil
(v) Selling and distribution overhead	60%	40%

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You are required to calculate –

- (a) Total variable costs and total fixed costs
  - (b) Contribution in total as well as per unit
  - (c) P/V ratio
  - (d) Breakeven point in terms of rupees as well as units. [2+1+1+2=6]
2. (c) (ii) How do you treat Rectification cost and Obsolescence in costing. [3+3=6]

### Section B

Answer any two questions from this section.

3. (a) (i) What types of Educational Services are covered under the Companies (Cost Records and Audit) Rules 2014? 3
- (ii) What constitutes the cost records under Rule 2(e)? [5]
3. (b) What are the eligibility criteria for appointment as a cost auditor? [8]
- 3 (c) (i) Many Companies have filed Form 23C as well as Form CRA-2 for 2014-15 in respect of different products and/or multiple cost auditors, if applicable. Which SRN Number has to be reported in the cost audit report while filing the same in XBRL Mode? [2]
- (ii) What is meant by Telecommunication Services and what is its coverage? [6]

### Section C

Answer any three questions from this section.

4. (a) (i)  
Cost =  $300x - 10x^2 + \frac{1}{3}x^3$ , Calculate
- (i) Output at which Marginal Cost is minimum
  - (ii) Output at which Average Cost is minimum
  - (iii) Output at which Marginal Cost = Average Cost. [1+2+2=5]
4. (a) (ii) State the exception of Law of Demand. 3
4. (b) A firm assumes a cost function  $c(x) = x \left( \frac{x^2}{10} + 200 \right)$ , x is a monthly output in thousands of units. Its revenue function is given by  $R(x) = \left( \frac{2200 - 3x}{2} \right) x$  Find
- (i) If the firm decides to produce 10,000 units per month, the firm's cost and Marginal cost.
  - (ii) If the firm decides to produce Marginal cost of 320, the level of output per month, and cost of the firm.
  - (iii) The marginal revenue function.
  - (iv) If a decision is taken to produce 10,000 units each month, the total revenue and marginal revenue of the firm.
  - (v) If the firm produces with a marginal revenue of 1040, the firm's monthly output and monthly revenue. [2+1+1+2+2]

**4. (c)**

(i) Demand functions for two Commodities

$$X_1 = \frac{4}{P_1^2 P_2} \text{ and } X_2 = \frac{16}{P_1 P_2^2}$$

Where  $x_1$  and  $x_2$  are quantities of demand for two commodities respectively,  $P_1$  and  $P_2$  being their units' prices.

Examine whether the commodities are complementary or competitive. 4

(ii) BATRON LTD. a monopolist aims at profit maximization. The fixed cost of the firm is ₹200 and the average variable cost of the firm is constant at ₹30 per unit. Batron Ltd. sells goods in Punjab & Haryana and estimated demand function for the goods in Punjab & Haryana are as under:

$$P_P = 40 - 2.5 Q_P$$

$$P_H = 120 - 10 Q_H$$

If the price discrimination is practised by Batron Ltd., what will be the profit maximizing output? 4

**4. (d)**

(i) State the main features of Perfect Competition Market. 4

(ii) Assume that for a closed economy,  $E = C + I + G$ ,  
where  $E$  = Total expenditure on Consumption Goods,  
 $I$  = Exp. on Investment Goods  
 $G$  = Govt. spending

For equilibrium, we must have  $E = Y$ ,  $Y$  being total income received.

For a certain Economy, it is given that  $C = 15 + 0.9Y$ , where  $I = 20 + 0.05Y$  and  $G = 25$ .

Find the equilibrium values of  $Y$ ,  $C$  and  $I$ . How will these change, if there is no Govt. spending? [2+2]