

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

## PTP\_ Intermediate\_Syllabus 2012\_Dec2015\_Set 2

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

	Learning objectives	Verbs used	Definition
<b>LEVEL B</b>	KNOWLEDGE  What you are expected to know	List	Make a list of
		State	Express, fully or clearly, the details/facts
		Define	Give the exact meaning of
	COMPREHENSION  What you are expected to understand	Describe	Communicate the key features of
		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  How you are expected to apply your knowledge	Apply	Put to practical use
		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  How you are expected to analyse the detail of what you have learned	Analyse	Examine in detail the structure of
		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	

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### 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.)

#### SECTION A

Answer any two questions from this section.

1. Answer all questions.

(a) The following figures have been given for Profit and Sales from the accounts of ZEESLIN LTD.

Year	Sales (₹)	Profit (₹)
2011	2,00,000	20,000
2012	3,00,000	40,000

Calculate the sales required to earn a Profit of ₹ 50,000.

[2]

(b) What are the limitations of Inter-firm comparison?

[2]

(c) The following information is given for the next year:

Budgeted Sales = 5,00,000 units

Finished Goods: Closing Stock = 1,50,000 units; Opening Stock = 80,000 units.

Equivalent units of WIP: Closing Stock = 60,000 units; Opening Stock = 50,000 units.

Calculate the number of equivalent units produced.

[2]

(d) Distinguish between Indifference Point and Break-Even Point with regard to their (i) Definition, and (ii) Purpose.

[2+2=4]

(e) The Companies (Cost Records and Audit) Rules, 2014 covers "Generation, transmission, distribution and supply of electricity" with no corresponding CETA Heading. Whether the Quantitative Information and Abridged Cost Statement in respect of Electricity are required to be reported under the Service Sector in the absence of a CETA Heading? [2]

(f) Whether overall annual Turnover/individual turnover definition will include other operational income like Job work income, scrap sale, trading turnover, export benefits, sales of services etc.?

[2]

(g) Find the Elasticity of Demand for

[3]

$$P = \frac{4}{(2x+1)^2}$$

(h) What are the components of time series ?

[3]

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### 2. (a) (i)

XYZ Ltd. can produce 4,00,000 units of a product per annum at 100% capacity. The variable production costs are ₹ 40 per unit and the variable selling expenses are ₹ 12 per sold unit. The budgeted fixed production expenses were ₹ 24,00,000 per annum and the fixed selling expenses were ₹ 18,00,000. During the year ended 31st March, 2015, the company worked at 80% of its capacity. The operating data for the year are as follows:

Production	3,20,000 units
Sales @ ₹ 80 per unit	3,10,000 units
Opening stock of finished goods	40,000 units

Fixed production expenses are absorbed on the basis of capacity and fixed selling expenses are recovered on the basis of period.

You are required to prepare Statements of Cost and Profit for the year ending 31st March, 2015:

- 1) On the basis of marginal costing
- 2) On the basis of absorption costing. [5+5=10]

### 2. (a) (ii)

There are two warehouses for storing finished goods in a factory. Warehouse A is at a distance of 10 km. and warehouses B at a distance of 15 km. from the factor A fleet of 5-tonne lorries is engaged in transporting the finished goods from the factory. The records show that the lorries average a speed of 30 kms. per hour when running and regularly take 40 minutes to load at the factory. At warehouse A unloading takes 30 minutes per load while at warehouse's B it takes 20 minutes per load.

Drivers wages, depreciation, insurance and taxes amount to ₹ 18 per hour operated. Fuel, oil, tyres and maintenance cost ₹ 2.40 per kilometre. You are required to draw up a statement showing the cost per tonne kilometre for carrying the finished goods to the two warehouses.

[10]

### 2. (b) (i)

Titan Engineering is operating at 70 per cent capacity and presents the following information:

Break-even point	₹ 200 crores
P/V Ratio	40 per cent
Margin of safety	₹ 50 crores

Titan's management has decided to increase production to 95 percent capacity level with the following modifications:

- (i) The selling price will be reduced by 8 per cent.
- (ii) The variable cost will be reduced by 5 per cent on sales.
- (iii) The fixed cost will increase by ₹ 20 crores, including depreciation on additions, but excluding interest on additional capital.
- (iv) Additional capital of ₹ 50 crores will be needed for capital expenditure and working capital.

Required

- I. Indicate the sales figures, with the working, that will be needed to earn ₹ 10 crores over and above the present profit and also meet 20 per cent interest on the additional capital?
- II. What will be the revised?
  1. Break-even point

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2. P/V Ratio
3. Margin of safety.

[4+3+3=10]

### 2. (b) (ii)

A product passes through three process - A, B and C. 10,000 units at a cost of ₹ 1.10 were issued to process A. The other direct expenses were as follows:

	Process A	Process B	Process C
Sundry materials	₹ 1,500	₹ 1,500	₹ 1,500
Direct labour	4,500	8,000	6,500
Direct expenses	1,000	1,000	1,503

The wastage of process A was 5% and in process B 4%. The wastage of process A sold at ₹ 0.25 per unit and that of B at ₹ 0.50 per unit and that of C at ₹ 1.00 per unit.

The overhead charges were 160% of direct labour. The final product was sold at ₹ 10 per unit fetching a profit of 20% on sales. Find out the percentage of wastage in process C. [10]

### 2. (c) (i)

The following information pertains to labour force of UDHHAMI LTD. engaged in a week of November 2014 for a JOB-PH.

	Skilled	Semi-skilled	Unskilled	Total
No. of workers in standard gang:	16	12	8	36
Standard rate per hour (₹)	60	30	10	--
No. of workers in actual gang:	---	---	---	--
Actual rate per hour (₹)	70	20	20	--

In a 40 hours week, the gang produced 1080 standard hours. The actual number of semi-skilled workers is two times of the actual number of unskilled workers. Total number of actual workers are same as standard gang. The rate variance of semi-skilled workers is ₹6400 (F).

You are required to find the following:

1. The actual number of workers/labours in each category.
2. Labour gang (mix) variance.
3. Labour sub-efficiency variance.
4. Labour rate variance.
5. Labour cost variance.

[(3+1×3)+4]=10

### 2. (c) (ii)

GREEN ENVIRON LTD. has two divisions—M and N. Division-M manufactures product A-15 which it sells in outside market as well as to Division-N which processes it to manufacture Z-25. The Manager of Division-N has expressed the opinion that transfer price is too high. The two Divisional Managers are about to enter into discussions to resolve the conflict and Manager of Division-M to supply him with some information prior to discussions.

Division-M has been selling 50,000 units to outsiders and 10,000 units to Division-N, all at ₹ 25 per unit. It is not anticipated that these demand will change. The variable cost is ₹ 15 per unit and the fixed costs are ₹ 3 lakhs. Divisional investment in assets is ₹12 lakhs.

The Manager of Division-M anticipates that Division-N will want a transfer price of ₹ 22. If he does not sell to Division-N, ₹ 40,000 of fixed costs and ₹ 2,00,000 of assets can be avoided. The Manager of Division-M would have no control over the proceeds from the sale of the assets and is judged primarily on his rate of return.

Required:

- (1) Should the Manager of Division-M transfer its products at ₹ 22 to Division-N?  
(2) What is the lowest price that the Division-M should accept? [8+2=10]

**Section B**

Answer any two questions from this section.

3. (a)

- (i) Is maintenance of cost accounting records mandatory for a multi-product company where all the products are not covered under the Rules even if the Turnover of the individual product/s that are covered under the Rules is less than rupees thirty five crores? [3]
- (ii) Is there any obligation on the part of cost auditor to report offence of fraud being or has been committed in the Company by its officers or employees? [5]

3. (b)

- (i) Whether separate Form CRA-2 is required to be filed by a company having two or more different types of products covered under cost audit? [3]
- (ii) What is the procedure to be followed for fixing the remuneration of a cost auditor? [5]

3. (c)

- (i) What is the procedure for appointment of cost auditor under the Companies Act, 2013? [6]
- (ii) Revised Form CRA-2 has been made available by the Ministry of Corporate Affairs conforming to the Companies (Cost Records and Audit) Rules, 2014 on 31st December, 2014. What are the required attachments to Form CRA-2? [2]

**Section C**

Answer any three questions from this section.

4. (a) (i)

How is the price determined by a firm under Oligopoly? [4]

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4. (a) (ii)

The total cost of daily output of Q tonnes of coal is ₹  $(\frac{1}{10}q^3 - 3q^2 + 50q)$ . What is the value of q, when average cost is minimum? Verify that at this level, Average Cost = Marginal Cost.

[2+2=4]

4. (b)

List the factors to be considered while setting the price of a PRODUCT.

[8]

4. (c) (i)

The efficiency (E) of a small manufacturing concern depends on the number of workers (W)

and is given by  $10E = \frac{-W^3}{40} + 30W - 392$ , find the strength of the worker, which give maximum efficiency.

[3]

4. (c) (ii)

State the factors involved in Demand Forecasting.

[5]

4. (d) (i)

BURNET LTD. sells output in a perfectly Competitive Market. The average variable cost function of Burnet Ltd. is :  $AVC = 300 - 40Q + 2Q^2$ .

Burnet Ltd. has an obligation to pay ₹500 irrespective of the output produced. What is the price below which Burnet Ltd. has to shut down its operation in the short run?

[4]

4. (d) (ii)

HEMA ELECTRICALS an electronics firm assumes a cost function  $C(x) = x(\frac{x^2}{10} + 200)$ , where 'x' is

a monthly output in thousands of units. Its revenue function is given by  $R(x) = x(1100 - 1.5x)$ .

Find:

I. the output required per month to make the Marginal Profit = 0; and

II. the Profit at this level of output.

[3+1 = 4]