

PTP_Final_Syllabus 2008_Dec2014_Set 2

Paper- 15: MANAGEMENT ACCOUNTING – ENTERPRISE PERFORMANCE MANAGEMENT

Time Allowed: 3 Hours

Full Marks: 100

The figures in the margin on the right side indicate full marks.
Attempt Question No. 1 (carrying 25 marks), which is compulsory and any five more questions (each carrying 15 marks) from the rest.

Please: (i) Answer all part of a question at one place only.

(ii) Open a new page for answer to a new question.

Working Notes should form part of the answer.

Whenever necessary, suitable assumptions should be made and indicated in answer by the candidates.

1. (a) In each of the cases given below, only one is the most appropriate option. Indicate the correct answer (=1 mark) and show your workings/reasons briefly in support of your answer (=1 mark): [2×5=10]

(i) SUVAM LTD., has the capacity of production of 80,000 units and presently sells 20,000 units at ₹ 100 each. The demand is sensitive to selling price and it has been observed that with every reduction of ₹ 10 in selling price, the demand is doubled. What should be the target cost at full capacity if profit margin on sale is taken as 25%?

- A. ₹ 67.50
- B. ₹ 60.00
- C. ₹ 45.00
- D. None of the above

(ii) ASHLIN LTD. has developed a new product and just completed the manufacture of first four units of the product. The first unit took 2 hours to manufacture and the first four units together took 5.12 hours to produce. The Learning Curve rate is

- A. 83.50%
- B. 80.00%
- C. 75.50%
- D. None of (A), (B) or (C)

(iii) ANKIT LTD., operates Throughput Accounting System. The details of Product A per unit are as Under:

Selling Price ₹ 75
Material Cost ₹ 30
Conversion Cost ₹ 20

Time to bottleneck resources 10 minutes

The return per hour for Product A is

- A. ₹ 270
- B. ₹ 150
- C. ₹ 120
- D. ₹ 90

(iv) ABC Ltd. has current PBIT of ₹19.20 Lakhs on total assets of ₹96 Lakhs. The company proposes to increase assets by ₹24 Lakhs, which is estimated to increase operating profit before depreciation by ₹8.40 Lakhs-a net increase in Depreciation by ₹4.80 Lakhs. This will result in ROI.

- A. To decrease by 1%
- B. To increase by 1%
- C. To remain same
- D. None of the above.

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- (v) Division A of a company manufactures a single product and the following data are provided: Sales = 25,000 units Fixed Cost = ₹ 4,00,000
Depreciation = ₹ 2,00,000 Residual Income = ₹ 30,000
Net Assets = ₹10,00,000

Head Office assesses divisional performance by the method of Residual Income and uses cost of capital of 12%.

The average contribution per unit for Division A is:

- A ₹25
B. ₹30
C. ₹35
D. None of these.

(b) Expand the following abbreviation:

[1×5]

- (i) PLCM
(ii) HRP
(iii) COSU
(iv) EFQM
(v) PDCA

(c) Define the following terms:

[1×5]

- (i) Bench Marking
(ii) McKinney's 7-S Framework
(iii) Capacity Planning
(iv) Supply Chain Management
(v) Data Mining.

(d) State whether the following statements given below are 'True' or 'False'. If True, simply rewrite the given statement (1 mark). If False, state it as False (½ mark) and rewrite the correct statement (½ mark):

[1×5]

- (i) Value Chain Concept and Value Added Concepts are fundamentally same.
(ii) Value Analysis Process is a less important tool than Function Analysis System Technique.
(iii) Effector is another name for Management Information System.
(iv) JIT manufacturing based on 'Push Through Philosophy', helps to provide the right parts at the right time and in right quantity.
(v) A company's approach to make or buy decision depends on whether the company is operating at or below normal volumes.

2. (a) What is Intranet? What are its advantages?

(b) An engineering company produces two products A and B. The cost data are as under:

Particulars	A (₹)	B (₹)
Selling Price	175	220
Direct Material	40	80
Direct Labour	60	40
Variable Overheads	30	20

Each product undergoes an operation in the two departments, viz. cutting and finishing, before it emerges as a finished product. The unit time taken by the products and the maximum available hours in the cutting and finishing operations are given below:

Product	Cutting hours	Finishing Hours
A	5	10

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B	20	15
Maximum hours available	400	450

Required:

Formulate the above problem in a linear programming problem.

- (c) Dry Twigs and Fresh Blossoms Ltd. is always discarding old lines and introducing new lines of products and is at present considering three alternative promotional plans for ushering in new products. Various combinations of prices, development expenditures and promotional outlays are involved in these plans. High, medium and low forecasts of revenues under each plan have been formulated; and their respective probabilities of occurrence have been estimated. These budgeted revenues and probabilities along with other relevant data are summarized as under:

Particulars	₹ in lakhs		
	Plan I	Plan II	Plan III
Budgeted Revenue with probability:			
- High	30(0.3)	24(0.2)	50(0.2)
- Medium	20(0.3)	20(0.7)	25(0.5)
- Low	5(0.4)	15(0.1)	0(0.3)
Variable cost as % of Revenue	60%	75%	70%
Initial Investment	25	20	24
Life in years	8	8	8

The company's Cost of Capital is 12%; the income tax rate is 40% (say). Investments in promotional programmes will be amortized by the straight-line method. The company will have net taxable income in each year, regardless of the success or failure of the new products. The present value of an annuity of ₹ 1 at 12% for 8 years is 4.9676.

- (i) Substantiating with figures makes a detailed analysis and find out which of the promotional plans is expected to be the most profitable.
- (ii) In the event the worst happened, which of the plans would result in the maximizing profit? **[(1+4)+3+7]**

3. (a) Explain the role of Cost and Management Accountant into a Target Costing Environment.

- (b) Raja Automobiles Pvt. Ltd., manufactures around 150 scooters. The daily production varies from 146 to 154 depending on the availability of raw material and other working conditions.

The following data is available:

Production (units)	146	147	148	149	150	151	152	153	154
Probability	0.04	0.09	0.12	0.14	0.11	0.10	0.20	0.12	0.08

The completed units of scooters are transported in a specially arranged truck accommodating 150 scooters.

The Despatch will be equal to the opening stock plus daily production or 150 scooters, whichever is less. Empty Space are applicable only when the despatch is less than 150 scooters. Assume that the opening stock on day-1 is Nil.

Using the following random numbers:

80,81,76,75,64,43,18,26,10,12,65,68,69,61 and 57.

Simulate for 15 days to find out:

- (i) The average number of scooters waiting in the factory and
- (ii) The average number of empty space on the truck. **[5+10]**

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4. (a) Explain briefly the different perspective of a Balanced Score Card.
 (b) N LTD., has adopted a Standard Costing System. The Standard output for 20,000 units. The Standard Cost and Profit per unit is given below:

Particulars	₹
Direct Materials (6 units @ ₹ 1.50)	9.00
Direct Labour (6 units @ ₹ 1.00)	6.00
Direct Expenses	1.00
Factory Overheads :	
Variable	0.50
Fixed	0.60
Administrative Overheads	0.60
	17.70
Profit per unit	2.30
Selling Price (Fixed by Government)	20.00

Actual production and sales for a period was 14,400 units. The following are the variance worked out at the end of the period:

Particulars	Favourable (₹)	Adverse (₹)
Direct Materials :		
Price Variance	-	8,500
Usage Variance	2,100	-
Direct labour :		
Rate Variance	-	8,000
Efficiency Variance	6,400	-
Factory Overheads :		
Variable Expenditure Variance	800	-
Fixed Expenditure Variance	800	-
Fixed Volume Variance	-	3,360
Administrative Overheads :		
Expenditure Variance	-	800
Volume Variance	-	3,360

You are required to:

- (i) Ascertain the details of cost and prepare the Profit and Loss Account in the statement for the period, showing actual profit.
 (ii) Reconcile the actual profit with the standard profit. **[(1+4)+{(5+3)+2}]**

5. (a) Write a note on Total Quality Management.
 (b) Differentiate between Quality Planning, Quality Control & Quality Improvement.
 (c) State the uses of Learning Curve. **[5+5+5]**

6. (a) Sturdy Horse Ltd., a cycle manufacturing company has drawn up a programme for the manufacture of a new product for the purpose of fuller utilisation of its capacity. The scheme envisages the manufacture of baby tricycle fitted with a bell. The company estimates the sales of tricycles at 20,000 during the first year and expects that from the second year onward the sales estimates will stabilise at 10,000 tricycles. Since the company has no provision for the manufacture of the small bells specially required for the tricycle, the requirement of the bells is initially proposed to be met by way of purchase from the market at Rs. 8 each. However, if the company desires to manufacture the bell in its factory by installation of new equipment, it has two alternative proposals as under:

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Particulars	Installation of Super-X Machine	Installation of Janta Machine
Initial Cost of Machine	₹ 3,00,000	₹ 2,00,000
Life	10 years	10 years
Fixed overheads other than depreciation on machines (per annum)	₹54,000	₹28,000
Variable expenses per bell	₹4.00	₹ 5.00

Depreciation on machine should be charged on straight line basis.

Required:

- (i) For each of the two levels of output namely 10,000 and 20,000 bells state with suitable workings whether the company should purchase the bells from market or install new equipment for manufacture of bells. If your decision is in favour of the installation of new equipment, which of the two new machines should be installed.
- (ii) What would be your decision in case the forecast of requirement from the second year onwards is estimated at 40,000 bells instead of 2,0,000 bells?
- (iii) At what volume of bells will the installation of the two machines break even?

(b) Briefly explain about the "Kaizan Costing".

[10+5]

7. (a) The standard cost card of a product X is as under:

	₹	₹
Direct Material - Item A 10 kg@ ₹ 10	100	
- Item B 5 kg @ ₹ 5	25	125
Direct Wages - 5hrs.@ ₹ 4		20
Fixed Production Overheads		25
Total Standard Cost		170
Standard Gross Profit		30
Standard Selling Price		200

During the month just concluded, the following were the actual results for the production of 800 units.

	₹
Sales 800 units @ 200 per unit	1,60,000
Direct Material Item A 7800Kg.	79,950
Item B 4200 Kg.	20,160
Direct Wages 4200 hrs.	12,075
Fixed Overheads	23,500
Gross Profit	1,35,685
	24,315

Material Price Variance is calculated at the point of issue.

Material purchased were Item A 9000 Kg @ ₹ 10.25 per Kg and Item B @ ₹ 4.80 per Kg.

There was no Opening Stock.

You are required to calculate:

- (i) Material Price Variance
- (ii) Material Usage Variance
- (iii) Labour Rate Variance and
- (iv) Labour Efficiency Variance.

- (b) A company has two divisions one producing an intermediate for which there is external market and another using this intermediate in finished product and it sells in the market. Each unit of finished product uses one unit of intermediate. The sales quantity is sensitive to the price charged and the selling division has developed the following sales schedule:

Selling price per unit (₹)	500	450	400	350	300	250
Sales units (No)	1,000	2,000	3,000	4,000	5,000	6,000

Cost details are as:

Particulars	Production Division	Selling Division
Variable Cost Per unit (₹)	55	35
Fixed Cost Per annum (₹)	3,00,000	4,50,000

The transfer price is ₹ 175 based on the full cost basis.

- (i) Prepare a statement of profit for each division and the company as a whole.
- (ii) Determine the selling price that will maximize the selling division profit and the price that will maximize the company's profit.
- (iii) Determine the which transfer price policy will maximize the overall company's profit. **[(2x4)+7]**

8. Write short notes on any three out of the following:

[5x3]

- (a) Distribution Requirement Planning
- (b) Theory of Constraints
- (c) Basic elements of a control system
- (d) Crowned Prince Syndrome