

# INTERMEDIATE EXAMINATION

June 2015

P-10(CMA)  
Syllabus 2012

## Cost and Management Accountancy

Time Allowed: 3 Hours

Full Marks: 100

*The figures in the margin on the right side indicate full marks.*

*This paper contains four questions.*

*All questions are compulsory, subject to instruction provided against each question.*

*All workings must form of your answer.*

*Assumptions, if any, must be clearly indicated.*

*Please: (1) Write answers to all parts of a question together.*

*(2) Open a new page for answer to a new question.*

*(3) Attempt the required number of questions only.*

1. Answer all questions:

- (a) SHRIJINI LTD. having a Margin of Safety of ₹ 4 lakh makes a Profit of ₹ 80,000. If its Fixed Cost is ₹ 5 lakh, what will be Break-Even Sales of SHRIJINI LTD.? 2
- (b) In a factory of ASHLIN LTD., where Standard Costing System is followed, the production department consumed 1100 kgs. of a material @ ₹ 8 per kg. for a Product-A resulting in material price variance of ₹ 2,200 (FAV) and material usage variance of ₹ 1,000 (Adv.). What is the standard material cost of Actual Production of a Product-A? 2
- (c) OPTIMA LTD. operates a Throughput Accounting System. The details of Product-Z per unit are as under:

	₹
Selling Price	45
Material Cost	18
Conversion Cost	22
Return per hour for Product-Z	270

What is the time on bottleneck Resources (in minutes)? 2

- (d) GYANI Transporter is running 8 buses between two cities which are 90 kilometres apart. Seating capacity of each bus is 52 passengers but actual capacity is 80%. Calculate the total passenger kilometres for the month of May 2015. 2
- (e) A television company manufactures several components in batches. The following data relate to one component:

Annual demand	32,000 units
Set up cost/batch	₹ 120
Annual rate of interest	12%
Cost of production per unit	₹ 16

Calculate the Economic Batch Quantity (EBQ). 2

Please Turn Over

- (f) Whether separate form CRA-2 is required to be filed by a company, having 2 or more different types of products covered under Cost Audit? 2
- (g) What are the powers of the Cost Auditor under the Companies Act, 2013? 2
- (h) What do you mean by the term "Oligopoly"? 2
- (i) What is Marginal Revenue Product (MRP)? 2
- (j) The Cost of a product of MENZ LTD. is given by function  $C(q) = 200q - 10q^2 + \frac{1}{3}q^3$ . [Where C(q) stands for Cost function and q for output.] 2

**Calculate**, output at which average cost is equal to marginal cost. 2

2. Answer *any two* questions (Carrying 20 Marks each):

- (a) (i) VIBRANT LTD. a manufacturing Company, produces one main Product A and two by-products M and N.

For the month of May, 2015, following details are available:

Total Cost upto separation point ₹ 2,20,000.

Product/By-Product	A	M	N
Cost after separation		₹ 35,000	₹ 24,000
No. of units produced	4,000	1,800	3,000
Selling price per unit	₹ 100	₹ 40	₹ 30
Estimated net profit as percentage to sales value		20%	30%
Estimated selling expenses as percentage to sales value	20%	15%	15%

There is no beginning or closing inventories.

**Required:**

Prepare statement showing:

- (1) Allocation of joint cost; and  
(2) Product wise and overall profitability of the company for May, 2015. 5+5=10
- (ii) Normal capacity of SUVAN LTD. is 240000 Units per annum. Cost structure for the year ending 31st March, 2015 is as follows:

Direct material cost per unit	₹ 25
Direct labour cost per unit (subject to a minimum of ₹ 2,50,000 per month)	₹ 20
Overheads: Fixed	₹ 18,00,000
Variable per unit	₹ 15

Semi variable ₹ 9,60,000 per year upto 50% capacity and additional ₹ 3,00,000 for every 20% increase in capacity or part thereof.

In the year 2015-16 the company to be worked at 60% capacity for the first four months but it was expected that it would work at 80% capacity for the remaining 8 months. During the first four months, the selling price per unit will be fixed at ₹ 100.

**Required:**

What should be the price per unit in the remaining eight months to earn a total Profit of ₹ 43,80,000? 4+6=10

- (b) (i) SHEENNA LTD., an appliance manufacturer, has always sold its product through wholesalers. Last year its sales were ₹ 20,00,000 and its net profit 10% of sales. As a result of the increase in appliance sales through departmental stores and e-commerce business establishment, the company is considering elimination of wholesalers and selling directly to retailers. It is estimated that this would result in a 40% drop in sales but net profit would be ₹ 1,80,000 due to the elimination of middlemen. Fixed expenses would increase from ₹ 2,00,000 to ₹ 3,00,000 owing to additional storage and logistics facilities.

As a Management Accountant you are required to **find out**:

- (1) Whether the proposed change would raise or lower the break-even point in rupees? By how much? Give reason.
- (2) What would be the sale volume in rupees which would enable Sheena Ltd. to obtain as much profit as it made last year? 8+2=10

- (ii) ANUKULA UDHYOG LTD. manufactures two types of products X and Y and overheads are absorbed on the basis of direct labour hours. The information about these products for the month of May, 2015 is as follows:

	Product X	Product Y
Production volume	2550 Units	3300 Units
Direct Material cost per unit	₹ 300	₹ 450
Direct Labour cost @ ₹ 60 per hour	₹ 240	₹ 360

During the above said period direct labour hours worked were 30000 hours and production overheads were ₹ 16,87,500. Details of overheads according to identified three activities are as follows:

Activity	Overheads ₹	Cost Driver level	
		X	Y
Order processing	3,65,000	650 orders	350 orders
Machine processing	11,20,000	9500 machine hours	12,900 machine hours
Inspection	2,02,500	275 Inspections	400 Inspections

**You are required** to calculate the cost of production per unit for each product by using:

- (1) Direct Labour Hour Rate for absorption of overhead; and
- (2) Activity Based Costing (ABC) Method. 3+7=10

- (c) (i) ABOKASH LTD., operates a System of Standard Costing. The Company manufactures a Chemical Product by mixing three ingredients Chemical A, B and C and processes the same. The Standard Cost data for the product are as follows:

Chemical	Percentage of total input	Standard Cost per kg. (₹)
A	50%	40
B	30%	60
C	20%	95

Note: Loss during processing is 5% of input and this has no realizable value.

During the month of May, 2015, 10200 kg. of finished product was obtained from the Inputs as per details given below:

Chemical Consumed	Quantity purchased and issued	Actual Cost (₹)
A	5200 kg.	2,34,000
B	3600 kg.	2,19,600
C	1700 kg.	1,58,100

**You are required to calculate:**

- (1) Material Cost Variance
- (2) Material Price Variance
- (3) Material Mix Variance
- (4) Material Yield Variance
- (5) Material Usage Variance

2+2+2+2+2=10

(ii) What do you mean by "Flexible Budgeting"?

2

(iii) ADAMAS LTD.; a newly established manufacturing company has an installed capacity to produce 1,00,000 units of a consumer product annually. However its practical capacity is only 90%. The actual capacity utilisation may be substantially lower, as the firm is new to the market and demand is uncertain. The following budget has been prepared for 90% capacity utilisation:

	Cost per unit ₹
Direct Materials	12
Direct Labour	8
Direct Expense	5
Production Overheads	10 (40% variable)
Administration Overheads	5 (100% fixed)
Selling and Distribution	6 (50% variable)

**You are required** to prepare Flexible Budgets of a Consumer product at 70% and 80% levels of capacity utilization giving clearly the Variable Cost, Fixed Cost and the Total Costs under various heads at all stated levels.

4+4=8

3. Answer any two questions (Carrying 8 Marks each):

- (a) (i) What is the procedure for appointment of Cost Auditor under the Companies Act, 2013? 6
- (ii) Whether Cost Audit Report has to be prepared plantwise or for the Company as whole? 2
- (b) (i) Who can be appointed as a Cost Auditor? 3
- (ii) Under what circumstances will the appointment of Cost Auditor for Conducting Cost Audit be made in firm's name? 3
- Who will authenticate such report and how? 3+2=5
- (c) (i) What are the Social Objectives of Cost Audit? 5
- (ii) What is the meaning of "Turnover" in relation to the Companies (Cost Records and Audit) Rules, 2014? 3

Answer *any three* questions (Carrying 8 Marks each):

- (a) (i) What are the exceptions to the "Law of Demand"? 4
- (ii) The demand and supply function under perfect competition are  
 $y = 16 - x^2$  and  $y = 2(x^2 + 2)$  respectively.

**Find:**

- (1) The Market Price;  
 (2) Producer's Surplus. 2+2=4

- (b) (i) What are the factors involved in Demand Forecasting? 5
- (ii) The cost of a product of KRISHAN LTD. is given by the function  $C = 300x - 10x^2 + \frac{1}{3}x^3$ .  
 Where C stands for cost and x for output.

**Calculate** the output at which Marginal Cost is Minimum. 3

- (c) (i) What are the objectives of Fiscal Policy in India? 4
- (ii) The total Profit y in rupees of MEDICOS PHARM LTD., a drug company from the manufacture under sale of x drug bottles in given by  $y = -\frac{x^2}{400} + 2x - 80$ .

**Required:**

- (1) How many drug bottles must the Company sell to achieve the maximum profit?  
 (2) What is the Profit per drug bottle when this maximum is achieved? 3+1=4
- (d) What are the Pricing policies of a firm for introduction stage of a new product? 8