Paper – 10: Cost & Management Accountancy

Time Allowed: 3 Hours **Full Marks: 100**

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

Question.1

(a) A transport service company is running 4 buses between two towns which are 50 miles apart. Seating capacity of each bus is 40 passengers. The following particulars were obtained from their books for April, 2012.

	₹
Wages of Drivers, Conductors and Cleaners	2,600
Salaries of Office and Supervisory Staff	800
Diesel oil and other oil	3,800
Repairs and Maintenance	1,000
Taxation, Insurance etc	1,600
Depreciation	2,600
Interest and Other Charges	1,000
	13,400

Actual passengers carried were 75% of the seating capacity. All the four buses ran on all days of the month. Each bus made one round trip per day. Find out the cost per passenger mile. [2]

Answer:

Computation of Cost per Passenger Mile:

Passenger miles= No. of buses x Distance x Round trip x No. of Passengers x No. of days in month x Capacity.
= 4 x 50 x 2 x 40 x 30 x 75%
=3,60,000 miles

Cost per passenger mile = 13,400 / 3,60,000
= ₹ 0.037

(b) ABC Company fixes the inter-divisional transfer prices for its products on the basis of cost plus an estimated return on investment in its divisions. The relevant portion of the budget for the Division A for the year 2012 -13 is given below.

Particulars	Amount in ₹
Fixed Assets	5,00,000
Current Assets (other than debtors)	3,00,000
Debtors	2,00,000
Annual Fixed Cost for the Division	8,00,000
Variable Cost Per unit of product	10
Budgeted Volume of Production per year (units)	4,00,00
Desired Return on Investment	20%

You are required to determine the transfer price for Division A. [2]

Answer:

Computation of Transfer Price per unit

Particulars	Amount (₹)
Variable cost	10.00

Fixed cost (8,00,000 / 4,00,000)	2.00
Total Cost	12.00
Add: Desired return (10,00,000 x 20%) ÷ 4,00,000	0.50
Transfer Price	12.50

(c) From the following data calculate:
(a) B.E.P expressed in amount of sales in rupees.
(b) How many units must be sold to earn a net income of 10% of sales.
Sales price ₹ 20 per unit; variable manufacturing costs ₹ 10 p.u; fixed factory overheads ₹ 5,42,000 p.a; variable selling costs ₹ 4 p.u. Fixed selling costs ₹ 2,50,000 per year. [1+1]

Answer:

Sr. No.	Particulars	₹
I.	Selling price	20.00
II.	Variable cost (10+4)	14.00
III.	Contribution per unit (i - ii)	6.00

BEP in units = (2,50,000 + 5,42,000) / 6 = 1,32,000
(a) BEP sales = 1,32,000 x 20 = 26,40,000
(b) Let 'S' be the no. of units required
Sales = S x 20 = 20S
Desired profit = 20S x 10% = 2S
Required units=(F.C +Desired Profit)/Contribution per unit
S = (7,92,000 + 2S) / 6
4S = 7,92,000
S = 1,98,000

(d) The budgeted annual sale of firm is ₹ 120 lakh and 20% of the same is cash sales. If the average amount of debtors of the firm is ₹ 16 lakhs, what will be the average collection period of credit sales? [2]

Answer:

Credit Sale=₹ 120 - ₹ 24=₹96
Hence, Avg. collection period=Debtors /Credit sales per month
=16 /(96/12)=16 /8=2 month

(e) The output of three different products P, Q, and R in a factory are 20,000 kg, 15,000 kg and 15,000 kg respectively. If the costs totals to ₹ 13,75,000 and are in the proportion of 4:6:7 then what will be the cost per equivalent unit in ₹? [2]

Answer:

Products	Units	Cost Ratio	Equivalent units
P	20,000	4	80,000
Q	15,000	6	90,000
R	15,000	7	105,000
			2,75,000

Cost per equivalent unit=₹ 13,75,000 / ₹ 2,75,000= ₹ 5

(f) Define Cost Audit. [2]

Answer:

Cost audits help to ascertain whether an organization's cost accounting records are so maintained as to give a true and fair view of the cost of production, processing, manufacturing, and mining of a product. Therefore, cost audits can be used to the benefit of management, consumers and shareholders by (a) helping to identify weaknesses in cost accounting systems, and (b) to help drive down costs by detecting wastage and inefficiencies. Cost audits are also of assistance to governments in helping to formulate tariff and taxation policies.

(g) Difference between Cost Accounting policy and Cost Accounting system. [2]

Answer:

Cost Accounting Policy of a company should state the policy adopted by the company for treatment of individual cost components in cost determination.

The Cost Accounting system of a company, on the other hand, would provide a flow of the cost accounting data/information across the activity flow culminating in arriving at the cost of final product/activity.

(h) The Cost(C) of a firm is given by the function $C = x^3 + 12x^2 - 10x+5$, find the Average Cost, Average Variable Cost & Marginal cost and x being the output. [1+1+1=3]

Answer:

Total Cost (C) = $x^3 + 12x^2 - 10x + 5$ (given)

Average Cost (C/x) = $x^2 + 12x - 10 + 5/x$

Marginal Cost (dc /dx) = $3x^2 + 24x - 10$

Average Variable Cost = $x^2 + 12x - 10$

(i) Find the elasticity of demand of [3]

$$P = \frac{10}{(x+3)^2}$$

Answer:

$$P = \frac{10}{(x+3)^2} = 10(x+3)^{-2}$$

Differentiating w.r.t x

$$\frac{dp}{dx} = 10(-2)(x+3)^{-3} = -20(x+3)^{-3}$$

$$\frac{p}{x} = \frac{10}{x(x+3)^2}$$

$$\text{Elasticity of demand } (E_p) = \frac{dx}{dp} \div \frac{x}{p} = -\left[\frac{dx}{dp} \times \frac{p}{x}\right]$$

$$\frac{dx}{dp} = \frac{1}{-20(x+3)^{-3}} = \frac{(x+3)^3}{-20}$$

$$\frac{dx}{dp} \times \frac{p}{x} = \frac{(x+3)^3}{20} \times \frac{10}{x(x+3)^2}$$

$$= \frac{-(x+3)}{2x}$$

SECTION A

Answer any two questions from this section.

Question.2

(a) The following information are provided to you for a month in respect of a workshop:

(i) Overhead cost variance – ₹ 1,400 adverse

(ii) Overhead volume variance – 1,000 adverse

(iii) Budgeted hours - 1,200 hrs.

(iv) Budgeted overhead – ₹ 6,000

(v) Actual rate of recovery of overheads - ₹ 8 per hour

You are required to compute:

(1) Overhead expenditure variance

(2) Actual overheads incurred

(3) Actual hours for actual production

(4) Overheads capacity variance

(5) Overheads efficiency variance

(6) Standard hours for actual production **[10]**

Answer:

Working Notes:

Standard Rate of recovery of overhead rate=BOH/BH= ₹ 6,000/1,200 hrs. = ₹ 5

(1) Overhead expenditure variance = BOH - AOH= 6,000 - 6,400 = 400 (Adv)

Reconciliation of overheads expenditure variance

Overheads cost variance = Exp. Variance + Volume variance

1,400 (Adv) = 400 (Adv) + 1,000 (Adv)

(2) Actual overheads incurred

SOH=1000 hrs at ₹ 5 = ₹ 5,000

O/H Cost Var. = SOH – AOH

1400A = 5000 –AOH

-1400 = 5000 -AOH

∴ AOH = 5000 + 1400 = ₹ 6,400

(3) Actual hours for Actual production (AH)

= Actual overheads incurred/Actual rate of recovery of overheads

= ₹ 6,400 / ₹ 8 = 800 hours (AH)

(4) Overhead Capacity variance = SR (BH - AH) = 5(1200 - 800) = 2,000A

(5) Overheads Efficiency variance = SR (SH - AH) = 5(1,000 - 800) = 1,000F

Reconciliation:

Volume variance = Capacity variance + Efficiency variance or,

1000A = 2000 A + 1000 F

(6) Standard Hours for actual production (SH)

Volume variance = SR (SH – BH)

1000A = 5(SH – 1200)

– 1000 = 5 SH – 6000

Or, SH = (6000 – 1000)/5 = 1000 hrs.

(b) The following information relates to the production activities of Good Wish Ltd. 3 months ending on 31st December, 2012:

Particulars	Amount in ₹
Fixed Expenses:	
Management Salaries	**2,10,000**
Rent and taxes	**1,40,000**
Depreciation of machinery	**1,75,000**
Sundry Office Expenses	**2,22,000**
Total Fixed Expenses	**7,47,000**
Semi- variable Expenses at 50% capacity	
Plant Maintenance	**62,500**
Labour	**2,47,000**
Salesmen's Salaries	**72,500**
Sundry Expenses	**65,000**
Total Semi- Variable Expenses	**4,47,000**
Variable Expenses at 50% capacity	
Materials	**6,00,000**
Labour	**6,40,000**
Salesmen's commission	**95,000**
Total variable Expenses	**13,35,000**

It is further noted that semi variable expenses remain constant between 40% and 70% capacity, increase by 10% of the above figures between 70% and 85% capacity and increase by 15% of the above figure between 85% and 100% capacity. Fixed expenses remain constant whatever the level of activity. Sales at 60% capacity are ₹ 25,50,000, at 80% capacity ₹ 34,00,000 and at 100% capacity ₹ 42,50,000. All items produced are sold. Prepare a flexible budget at 60%, 80% and 100% productive capacity. [10]

Answer:

Working Notes:

1) Fixed overheads – It do not vary with capacity usage.

2) Overheads Semi – Variable

(a) Semi-variable overheads at 60% capacity are same as that at 50% capacity.
(b) Semi-variable overheads at 80% capacity are 110% of that at 50% capacity.
(c) Semi-variable overheads at 100% capacity are 115% of that at 50% capacity.

Good wish Ltd.

Particulars	60% (₹)	80% (₹)	100% (₹)
(A) Variable Expenses:			
Materials = $\left[\frac{₹6,00,000 \times \text{respective capacity}}{50\%}\right]$	7,20,000	9,60,000	12,00,000
Labour = $\left[\frac{₹6,40,000 \times \text{respective capacity}}{50\%}\right]$	7,68,000	10,24,000	12,80,000
Salesmen's Commission = $\left[\frac{₹95,000 \times \text{respective capacity}}{50\%}\right]$	1,14,000	1,52,000	1,90,000
	16,02,000	21,36,000	26,70,000
(B) Fixed Expenses (working note 1)			
Management salaries	2,10,000	2,10,000	2,10,000
Rent and Rates	1,40,000	1,40,000	1,40,000

Depreciation of machines	1,75,000	1,75,000	1,75,000
Sundry office cost	2,22,000	2,22,000	2,22,000
	7,47,000	7,47,000	7,47,000
(C) Semi- variable expenses (WN – 2)			
Plant maintenance	62,500	68,750	71,875
Labour	2,47,000	2,71,700	2,84,050
Salesman's salaries	72,500	79,750	83,375
Sundry Expenses	65,000	71,500	74,750
	4,47,000	4,91,700	5,14,050
(D) Total overhead costs (A+B+C)	27,96,000	33,74,700	39,31,050
(E) Profit & Loss (Balance Fig.) (F – D)	(2,46,000)	25,300	3,18,950
(F) Sales	25,50,000	34,00,000	42,50,000

Question.3

(a) A work order for 100 units of a commodity has to pass through four different machines of which the machine hour rates are: Machine A – ₹ 1.50, Machine B – ₹ 2.50, Machine C – ₹ 3 and Machine D – ₹ 2.25

Following expenses have been incurred on the work order – Materials ₹ 8,000 and Wages ₹ 500.

Machine - A has been engaged for 200 hours. Machine- B for 160 hours, Machine - C for 240 hours and Machine - D for 132 hours.

After the work order has been completed, materials worth ₹ 400 are found to be surplus and are returned to stores.

Office overhead used to be 40% of works costs, but on account of all-round rise in the cost of administration, distribution and sale, there has been a 50% rise in the office overhead expenditure.

Moreover, it is known that 10% of production will have to be scrapped as not being up to the specification and the sale proceeds of the scrapped output will be only 5% of the cost of sale.

If the manufacturer wants to make a profit of 25% on the total cost of the work order, find out the selling price of a unit of commodity ready for sale. [7]

Answer:

Statement showing the selling price of a unit

Particulars		₹
Materials used (₹ 8,000 – ₹400)		7,600
Direct Wages		500
Prime Cost		8,100
Works Overhead at machine hour rate:		
Machine - A For 200 hours @ ₹ 1.50 per hour	300	
Machine - B For 160 hours. @ ₹ 2.50 per hour	400	
Machine - C For 240 hours. @ ₹ 3 per hour	720	
Machine – D For 132 hours. @ ₹ 2.25 per hour	297	1,717
Works Cost		9,817
Administration Overhead at 60% of works cost		5,890

		15,707
Less: Sale proceeds of Scrap (5% of 10% of ₹ 15,707)		78
Total Cost of the work order		15,629
Profit at 25% of total Cost		3,907
Selling Price of 100 units		19,536
Selling Price of a unit		195.36

Note: It was known before that 10% of production will have to be scrapped; therefore, inputs must have been made taking this factor into consideration. No other adjustment is necessary except deducting the value of scrap from the cost of production.

(b) A company has two plants at locations I and II, operating at 100% and 75% of their capacities respectively. The company is considering a proposal to merge the two plants at on location to optimize available capacity. The following details are available in respect of the two plants:

Particulars	Location I	Location II
Sales (₹ in lakhs)	**200**	**75**
Variable costs (₹ in lakhs)	**140**	**54**
Fixed costs (₹ in Lakhs)	**30**	**14**

For decision- making purposes you are required to work out the following information:

(i) The capacity at which the merged plant will break even.

(ii) The profit of the merged plant working at 90% capacity. [5+5=10]

Answer:

Comparative Performance of Plant at 100% capacity

Particulars	Plant Location I	Plant Location II	Total Merged Plant
Capacity Levels [%]	100	100	100
Sales	200	100	300
Less: Variable costs	140	72	212
Contribution	60	28	88
Less: Fixed costs	30	14	44
Profit	30	14	44
Profit/Volume Ratio: Contribution/ Sales	$\frac{60}{200}$ x100 = 30%	$\frac{28}{100}$ x100 = 28%	$\frac{88}{300}$ x100 = 29.33%
Break Even sales: Fixed cost/Profit Volume ratio			$\frac{44}{29.33\%}$ 150

(i) Capacity of the merged plant at break even = $\frac{150}{300}$ x100 = 50%

(ii) Computation of the profitability of the merged plant at 90% capacity

Particulars	Amount [₹in lakhs]
Sales 90% of ₹300	270.00
Less: variable cost = 70.67% of sales	190.81
Contribution	79.19
Less: Fixed Cost	44.00
Profit	35.19

(c) State the need for reconciliation of cost and financial accounts. Also state the reasons for difference in profit between the two accounts. [3]

Answer:

The profit shown between the two accounts differs for several reasons when Accounts are not maintained on integrated system. As the two accounts are maintained separately and independently of each other, the profit as per two accounts will differ giving rise to need of reconciliation. Reasons for differences that arise are as under:

- Items of financial nature not recorded in cost Accounts like Rent received, interest received, Bad debts etc.
- Items charged to profit and loss account but not recorded in cost accounts like corporation tax, Dividend etc.
- Over/under absorption of overheads in cost accounts
- Difference in valuation of inventory
- Abnormal losses and gains.

Question.4

(a) New Construction Ltd. is engaged in a contract during the year. Following information is available at the year end.

Particulars	Amount (₹)
Contract price	6,00,000
Material delivered direct to site	1,20,000
Materials issued from stores	40,000
Materials returned to stores	4,000
Materials at site at the end of year	22,000
Direct labour payments	1,40,000
Direct expenses	60,000
Architect's fees	2,500
Establishment charges	24,500
Plant installed at cost	80,000
Value of plant at the end of year	65,000
Accrued wages at the end of year	10,000
Accrued expenses at the end of year	6,000
Cost of contract not certified by architect	23,000
Value of contract certified by architect	4,20,000
Cash received from contractor	3,78,000

During the period, materials amounting to ₹ 9,000 have been transferred to another contract to another place.

You are required to show the Contract A/c and Contractee A/c. [7+3=10]

Answer:

In the Book of new Construction Ltd.

Dr. Contract Account for the year ended……. Cr.

Particulars		Amount (₹)	Particulars	Amount (₹)
To Material delivered to Site		1,20,000	By Materials returned to Store	4,000
To material from Store		40,000		
To Labour	1,40,000		By Material c/d	22,000
Add: Accrued	10,000	1,50,000	By Material Transferred	9,000
			By Cost of Contract c/d (Balancing figure)	3,83,000
To Direct Expenses	60,000			
Add: Accrued	6,000			
		66,000		

To Depreciation on Plant (80,000 – 65,000) To Architect's Fees To Establishment Charges	15,000 2,500 24,500		
	4,18,000		4,18,000
To Cost of Contract b/d To Notional Profit c/d (Balancing Figure)	3,83,000 60,000	By Work- in- Progress A/c. Work Certified -Work Uncertified	 4,20,000 23,000
	4,43,000		4,43,000
To Costing Profit & Loss A/c (Working Note) To Work-in-Progress A/c (Balancing figure)	36,000 24,000	By Notional Profit b/d	60,000
	60,000		60,000

Working Note:

Profit Transferred $= \frac{2}{3} \times \text{Notional Profit} \times \frac{\text{Cash Received}}{\text{Work Certified}}$

$= \frac{2}{3} \times 60,000 \times \frac{3,78,000}{4,20,000}$

$= 36,000$

Dr. Contractee A/c for the year ended…… Cr.

Particulars	Amount (₹)	Particulars	Amount (₹)
To contract A/c (Balancing figure)	3,78,000	By bank A/c (Cash received)	3,78,000
	3,78,000		3,78,000

(b) List out the benefits of transfer pricing policy. [5]

Answer:

An ideal transfer pricing policy will benefit the organization in the following ways:

- Divisional performance evaluation is made easier.
- It will develop healthy inter-divisional competitive spirit.
- Management by exception is possible.
- It helps in co-ordination of divisional objectives in achieving organizational goals.
- It provides useful information to the top management in making policy decisions like expansion, sub-contracting, closing down of a division, make or buy decisions, etc.
- Transfer price will act as a check on supplier's prices.
- It fosters economic entity and free enterprise system.
- It helps in self-advancement, generates high productivity and encouragement to meet the competitive economy.
- It optimizes the allocation of company's financial resources based on the relative performance of various profit centres, which in turn are influenced by transfer pricing policies.

(c) What are the steps of Zero Based Budgeting? [5]

Answer:

Steps of Zero Based Budgeting:

- Corporate objectives should be established and laid down in detail.

- Decision units are identified by dividing the organization according to functions or departments.
- The activity of each function or department is described, analysed and documented.
- The targets and objectives of each activity are clearly determined ignoring existing budget.
- The performance assessment and measurement criteria for each activity are clearly defined.
- Each separate activity of the organization is described in a decision package.
- In performance of an activity, the alternative methods and costs are evolved.
- Each activity or decision package is evaluated and ranked by cost benefit analysis.
- The benefits achieved at different levels of funding are analysed.
- The consequences of not funding the activity are to be estimated.
- Resources in the budget are then allocated according to the resources available and the evaluation and ranking of the competing package.
- Available resources are directed towards alternatives in order of priority to ensure optimum results.

Section-B
Answer any one question from this section.

Question.5

(a) What are the obligations of the company as regards to cost audit? [10]

Answer:

The obligations of the company as regards to cost audit under the Cost Audit Report Rules, 2011 are as follows:-

(1) Every company in respect of which cost audit has been ordered by the Central Government shall, within 90 days of the commencement of every financial year, file its application with the Central Government on www.mca.gov.in portal, in the prescribed Form 23C seeking prior approval for appointment of the cost auditor, through electronic mode, in the prescribed form, along with the prescribed fee as per the Companies (Fees on Applications) Rules, 1999, and requisite enclosures. [Rule 3(2) of the 2011 Cost Audit Report Rules] i.e., (i) certified copy of the Board Resolution proposing appointment of the cost auditor; and (ii) copy of the certificate obtained from the cost auditor regarding compliance of section 224(1 B) of the Companies Act, 1956.

(2) On filing the application, the same shall be deemed to be approved by the Central Government, unless contrary is heard within thirty days from the date of filing such application.

(3) If within 30 days from the date of filing such application, the Central Government directs the company to re-submit the said application with such additional information or explanation, as may be specified in that direction, the period of thirty days for deemed approval of the Central Government shall be counted from the date of re-submission by the company.

(4) After expiry of 30 days, as the case may be, the company shall issue formal letter of appointment to the cost auditor, as approved by the Board.

(5) The company shall disclose full particulars of the cost auditor, along with the due date and actual date of filing of the cost audit report by the cost auditor, along with the due date and actual date of filing of the cost audit report by the cost auditor, in its Annual Report for each relevant financial year.

(6) Every company in respect of which cost audit has been ordered by the Central

Government shall, keep and maintain cost details, statements, schedules, etc. for each unit and each product or activity comprised in each product group, duly authenticated by at least two Directors of the company and the cost auditor.

(7) The cost details, statements, schedules, etc. of every company relating to a period of not less than eight financial years immediately preceding a financial year, or where the company had been in existence for a period less than eight years, in respect of all the preceding years shall be kept in good order.

(8) The company and every officer thereof, including the persons referred to in sub-section (6) of section 209 of the Act, shall make available to the cost auditor, such cost accounting records, cost statements, other books and documents, and Annexure to the Report, duly completed, as would be required for conducting the cost audit, and shall render necessary assistance to the cost auditor so as to enable him to complete the cost audit and submit his report within the 180 days time limit.

(9) The Annexure prescribed with the cost audit report shall be approved by the Board of Directors before submitting the same to the Central Government by the cost auditor. The Annexure, duly audited by the cost auditor, shall also be signed by the Company Secretary and at least one Director on behalf of the company. In the absence of Company Secretary in the company, the same shall be signed by at least two Directors.

(10) If the company defaults in complying with any of its above obligations, the company and every officer thereof who is in default, including the persons referred to in sub-section (6) of section 209 of the Act, shall be punishable as provided under sub-section (2) of section 642 read with subsections (5) and (7) of section 209 and sub-section (11) of section 233B of Companies Act, 1956 (1 of 1956).

(b) Whether a Cost Auditor can be appointed as Internal Auditor of the company. Whether there is any restriction on the cost auditor to accept assignments from a company where he is the cost auditor. [2+4]

Answer:

A cost auditor cannot render any services to the company whether acting individually, or through the same firm or through other group firms where he or any partner has any common interest, relating to:

(i) design and implementation of cost accounting system; or

(ii) the maintenance of cost accounting records, or

(iii) act as internal auditor,

However, a cost auditor can certify the compliance report or provide any other services as may be assigned by the company, excluding the services mentioned above.

[MCA General Circular No. 68/2011 dated 30th November 2011]

Question.6

(a) State the procedure for appointment of Cost Auditor. [8]

Procedure for appointment of cost auditor

The Cost Audit Branch of The Ministry of Corporate Affairs vide General Circular No. 15/2011 dated 11thApril 2011 has set out the procedure for appointment of Cost Auditor. The revised procedure has been made effective from the financial year commencing on or after the 1stday of April, 2011.

(i) The company required to get its cost records audited u/s 233B(1) of the Companies Act, 1956 shall appoint Cost Auditor as defined Cost Accountant as defined in clause (b) of sub-section (1) of section 2 of the Cost and Works Accountants Act, 1959 (23 of 1959) and who holds a valid certificate of practice under sub-section (1) of section 6 of that Act and including a Firm of Cost Accountants. However, the

cost accountant or partners of a firm of cost accountant should be in whole-time practice and not holding any other employment.

(ii) Under the revised procedure, the first point of reference will be the Audit Committee to ensure that the cost auditor is free from any disqualification as specified under section 233B(5) read with section 224 and sub-section (3) or sub-section (4) of section 226 of the Companies Act, 1956. The Audit Committee should also ensure that the cost auditor is independent and is at arm's length relationship with the company. After ascertaining the eligibility, the Audit Committee will recommend to the Board of Directors for appointment of the Cost Auditor.

In those companies where constitution of an Audit Committee is not required by law, the functions of the "Audit Committee" as per the procedure will be discharged by the "Board of Directors".

(iii) The cost auditor will be required to give a separate certificate to the audit committee in respect to his/its independence and arm's length relationship with the company.

(iv) The Company is required to e-file its application with the Central Government on www.mca.gov.inportal, in the prescribed Form23C within ninety (90) days from the date of commencement of each financial year, along with the prescribed fee as per the Companies (Fees on Application) Rules, 1999 as amended from time to time and other documents as per existing practice i.e.

(a) certified copy of the Board Resolution proposing appointment of cost auditor; and

(b) Copy of the certificate obtained from the cost auditor regarding compliance of section 224(1-B) of the Companies Act, 1956.

(v) After filing the online application by the Company, the same shall be deemed to be approved by the Central Government, unless contrary is heard within thirty (30) days from the date of filing such application.

However, if within thirty (30) days from the date of filing such application, the Central Government directs the Company to re-submit the said application with such additional information or explanation, as may be specified in that direction, the period of thirty days for deemed approval of the Central Government will be counted from the date of re-submission of Form 23C by the Company.

(vi) After obtaining approval of the Central Government (deemed or otherwise), the Company will be required to issue a formal letter of appointment to the cost auditor.

(vii) The Cost Auditor is required to inform the Central Government within thirty days of receipt of formal letter of appointment from the Company. Such intimation is required to be done in prescribed e-Form 23 D along with a copy of such appointment.

(viii) The Company is required to disclose full particulars of the cost auditor along with the due date and actual date of filing of the Cost Audit Report by the cost auditor, in its Annual Report for each relevant financial year. Since the notification has made effective from April 1, 2011, companies under cost audit are required to furnish the details in its Annual Report from the financial year 2010-11.

(b) What are the time limits for submission of cost audit report? [8]

Answer:

Time limit for submission of Report

The cost auditor shall forward his report referred to in sub rule (1) of the rule 4 to the Central Government and to the concerned company within one hundred and eighty days from the close of the company's financial year to which the report relates.

Duties of the Company under the Cost Audit Report Rules, 2011

Every company as specified in sub-rule (1) shall, within ninety days of the commencement of every financial year, file an application with the Central Government seeking prior approval for appointment of the cost auditor, through electronic mode, in the prescribed form, along with the prescribed fee as per the Companies (Fees on Applications) Rules, 1999, and requisite enclosures. However, where a company is covered under cost audit for the first time vide cost audit order dated 30th June 2011, the period of 90 days shall be counted from the date of this order.

Every company shall follow the procedure prescribed vide Ministry of Corporate Affairs' General Circular No. 15/2011 [File No. 52/5/CAB-2011] dated April 11, 2011.

The company and every officer thereof, including the persons referred to in sub-section (6) of section 209 of the Companies Act, 1956 shall make available to the cost auditor, such cost accounting records, cost statements, other books and documents, and Annexure to the Report, duly completed, as would be required for conducting the cost audit, and shall render necessary assistance to the cost auditor so as to enable him to complete the cost audit and submit his report within the time limit specified in rule 5, i.e., within 180 days from the close of the Company's financial year to which the report relates.

The Annexure prescribed with the cost audit report shall be approved by the Board of Directors before submitting the same to the Central Government by the cost auditor.

SECTION C
Answer any two questions from this section.

Question.7

(a) Define Income Elasticity of Demand. Explain the different types of Income Elasticity of Demand? [2+4=6]

Answer:

The income elasticity of demand explains the proportionate change in income and proportionate change in demand. The rate of change in the demand due to the change in the income is called income elasticity of demand.

Types of income elasticity of demand:

(i) Zero income elasticity of demand: If the change in the income fails to bring any change in demand, it is called zero income elasticity of demand. **($E_Y=0$)**.

(ii) Negative income elasticity of demand: If the demand decreases with the increase in the income is called negative income elasticity of demand.

(iii) Unitary income elasticity of demand: If the proportionate change in the demand is equal to proportionate change in the income, it is called unitary income elasticity of demand **($E_Y=1$)**

(iv) Income elasticity of demand is greater than one: If the proportionate change in the demand is more than the proportionate change in income, it is called relatively income elastic of demand **($E_Y>1$).**

(v) Income elasticity of demand is less than one: If the proportionate change in the demand is less than the proportionate change in the income, it is called relatively income inelastic demand **($E_Y<1$).**

(b) The total cost function of a manufacturing firm is given by $C = 2x^3 – x^2 + 4x + 5$ and the Marginal Revenue = 9 – 3x, X = output, determine the most profitable output of the firm. [4]

Answer:

$C = 2x^3 – x^2 + 4x + 5$

M.R. = 9 – 3x

M.C = $\frac{dc}{dx}$ = $6x^2 - 2x + 4$

Profit is maximum at MC = MR

$6x^2 - 2x + 4 = 9 - 3x$

$6x^2 + x - 5 = 0$

$6x^2 + 6x - 5x - 5 = 0$

$6x (x + 1) - 5 (x + 1) = 0$

$(x + 1) (6x - 5) = 0$

$X = -1.\ 6x - 5 = 0$

$x = 5/6$

(c) What are the conditions for price discrimination? [2]

Answer:

The price discrimination is possible if the following conditions are satisfied.

(i) More than one Market: There must be two or more than two separate markets otherwise the price discrimination is not possible. Different markets must be essential for charging different prices from different persons.

(ii) Different elasticity: The elasticity of demand in each market must be different. It means that if one market is less elastic than the other it should be elastic. If the elasticity of demand is equal in all markets there will be no scope for price discrimination

Question.8

(a) Find the sales for 2011 by applying regression equation. [4]

Year	**2006**	**2007**	**2008**	**2009**	**2010**
Sales (₹ Lakhs)	**100**	**150**	**100**	**160**	**200**

Answer:

Using above information find the sales for 2011 by applying regression equation y = a + bx.

Year	Sales (Y)	Time deviations (X)	Square of deviations (X^2)	Product of time deviations & sales (XY)
2006	100	-2	4	-200
2007	150	-1	1	-150
2008	100	0	0	0
2009	160	1	1	160
2010	200	2	4	400
N= 5	ΣY= 710	ΣX= 0	ΣX^2=10	ΣXY= 210

$a = \sum Y / N = 710 / 5 = 142$

$b = \sum XY / \sum X^2 = 210 / 10 = 21$

$Y = a + bx$

$Y = 142 + 21x$

2011 sales are: $Y = 142 + 21 (3) = 142 + 63 = 205$ lakhs.

(b) Differentiate between perfect competition and monopoly? [8]

Answer:

The following are some of the differences between perfect competition and monopoly.

(i) In perfect competition there is large number of buyers and sellers who are producing homogeneous products therefore the activity of single seller may not influence the market price but in monopoly there is single seller. He controls the entire supply of the commodities. In this there is no competition.

(ii) In perfect competition the revenue curves are parallel to X-axis and where as in monopoly the revenue curves are falling down from left to right. We can know the nature of revenue curves with the help of following diagrams.

(iii) In perfect competition because of uniform price level the average revenue and marginal revenue are equal and they are parallel to X-axis but in monopoly the average cost and the marginal revenue curves fall down from left to right. If the monopolist wants to sell more he must reduce the price level and if he wants to fix more prices he must reduce the output.

(iv) Under perfect competition the price is determined at that point where the demand and supply both are equal. In this competition both price and output are determined at equilibrium point. But in monopoly only the output is determined t that level where MC=MR.

(v) In perfect competition there is a free entry & exit. The new firms may enter the market when the existing firms are getting abnormal profits and leave the market when they are getting losses. But in monopoly the other firms have no freedom to enter the market. In perfect competition the firm gets an equilibrium position where the marginal cost is at raising stage, if the marginal cost curve fall down there is no possibility of equilibrium between MC and MR. In monopoly market the firm may get an equilibrium position where the MC curve is at raising stage, constant or at falling stage.

(vi) In perfect competition there is a difference between firm and Industry. Firm is a production unit and where as industry is a group of firms. But under monopoly market, there is no difference between the firm and Industry and both is same.

(vii) In the short period under perfect competition the firm may get abnormal profits. But in the long run normal profits because of free entry, exit the firm. But in monopoly the firm may get abnormal profits in short period and in long period the firm may get normal profits, because of no free entry.

(viii) The average cost becomes minimum at equilibrium point under perfect competition. In the case of monopoly AC curve is falling at equilibrium point i.e., point R.

(ix) In perfect competition the output is more when the price is less and where as in monopoly the output is less and price is more.

(x) In perfect competition there is no price discrimination. Fixing of different prices to different customers for the same article is said to be price discrimination. The price discrimination is not possible under perfect competition. But in monopoly market there is a possible for price discrimination. Monopolist can fix different prices to different customers for the same commodities.

Question.9

(a) A Company produces the products M, N and O from three raw materials A, B and C. One unit of product M requires 2 units of A and 3 units of B. A unit of product N requires 2 units of B and 5 units of C and one unit of product O requires 3 units of A, 2 unit of B and 4 units of C. The Company has 8 units of material A, 10 units of B and 15 units of C available to it. Profits/unit of products M, N and O are ₹ 4, ₹ 6 and ₹ 5 respectively.
Formulate the problem mathematically. [4]

Answer:

Raw Materials	M	N	O	Available units
A	2	-	3	8
B	3	2	2	10
C	-	5	4	15

Profits 4/ - 6/ - 5/

Let x_1 be the no. of units of M
Let x_2 be the no. of units of N
Let x_3 be the no. of units of O
Objective function: Max. $Z= 3x_1+5x_2+4x_3$
Subject to constraints:
$2x_1 + 3x_2 \leq 8$
$3x_1 + 2x_2+ 2x_3 \leq 10$
$5x_2 + 4x_3 \leq 15$
And $x_1, x_2, x_3 \geq 0$.

Primal
Max. $Z = 4x_1+6x_2 + 5x_3$
Subject to
$2x_1+3x_2 \leq 8$
$3x_1 + 2x_2+2x_3 \leq 10$
$5x_2 +4x_3 \leq 15$
And $x_1, x_2, x_3 \geq 0$

(b) Assume that for a closed economy E= C + I + G; where E= total Expenditure on consumption goods, I= Exp. On Investment goods and 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=35. Find the equilibrium values of Y, C and I. How will these changes, if there is no Government spending. [3+3]

Answer:
E=15 + 0.9Y + 20 + 0.05Y + 35
E=70 + 0.95Y= (1)
As given E=Y=70 + 0.95Y
0.05Y= 70
$\therefore Y = 70 /0.05 = 1400$
C= 15 + 0.9 × 1400 = 1275
I= 20 + 0.05 × 1400 = 90

When there is no Government spending.
Y= 35 + 0.95Y
= 0.05Y = 35
$\therefore Y = 35 /0.05 =700$
C= 15 + 630 = 645
I= 20 + 35= 55

(c) Define Dual Pricing? [2]

Answer:
Dual Pricing is a system in which there are two prices for the same commodity at the same time- one is a controlled price fixed by the Government and other is a free market price based on conditions of demand and supply. The controlled price is fixed price while the free market price is fluctuate. Controlled price is lower than the free market price because of the existence of excess of demand over supply.