



CommPass 4

An Essential Companion to
BCom (Semester IV)

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Contents

Note to Students iii

MODULE I: COST AND MANAGEMENT ACCOUNTING II

Unit 1: Joint Products and By-products Costing and Activity-based Costing	MI-3
Unit 2: Budget and Budgetary Control	MI-15
Unit 3: Standard Costing	MI-39
Unit 4: Marginal Costing and CVP Analysis	MI-51
Unit 5: Short-term Decision Making	MI-65
Model Question Papers	MI-77

MODULE II: TAXATION I

Unit 1	MII-3
Unit 2	MII-27
Unit 3	MII-43
Unit 4	MII-65
Model Question Papers	MII-81

MODULE III

Part I: Entrepreneurship Development

Unit 1	MIII-3
Unit 2	MIII-19
Unit 3	MIII-33
Unit 4	MIII-45

Part II: Business Ethics

Unit 1: Business Ethics	MIII-55
Unit 2: Principles of Business Ethics	MIII-69
Unit 3: Ethics in Management	MIII-75
Unit 4: Corporate Culture	MIII-87
Unit 5: Ethics & Corporate Governance	MIII-97
Model Question Papers	MIII-105

MODULE IV

Part I: Microeconomics II

Unit 1: Monopoly	MIV-3
Unit 2: Theories of Imperfect Competition	MIV-7
Unit 3: Factor Price Determination	MIV-11

Part II: Indian Economy

Unit 1: Growth and Development	MIV-17
Unit 2: Basic Features of Indian Economy	MIV-21
Unit 3: Sectoral Trends and Issues	MIV-25
Unit 4: Social Issues in Indian Economy	MIV-31
Model Question Papers	MIV-35

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MODULE I: COST AND MANAGEMENT ACCOUNTING II

Unit 1: Joint Products and By-products Costing and Activity-based Costing

Unit 2: Budget and Budgetary Control

Unit 3: Standard Costing

Unit 4: Marginal Costing and CVP Analysis

Unit 5: Short-term Decision Making

Unit	Total Marks Allotted	Chapters	Group A 5 marks	Group B 10 marks	Group C 15 marks
1	10	Joint Products and By-products Costing	—	1	—
	10	Activity-based Costing	—	1	—
2	10	Budget and Budgetary Control	—	1	—
3	20	Standard Costing	1	—	1
4	20	Marginal Costing and CVP Analysis	1	—	1
5	10	Short-term Decision Making	—	1	—

- (1) **Group A:** 1 alternative question from this group is also to be set either from Unit-3 or Unit-4.
- (2) **Group B:** 2 alternative questions from this group are also to be set from Unit-1, Unit-2 and Unit-5.
- (3) **Group C:** 1 alternative question from this group is also to be set either from Unit-3 or Unit-4.

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UNIT 1 JOINT PRODUCTS AND BY-PRODUCTS COSTING AND ACTIVITY-BASED COSTING

Unit	Total Marks Allotted	Chapters	Marks Allotted		
			Group A	Group B	Group C
			5 marks	10 marks	15 marks
1	10	Joint Products and By-products Costing			
	10	Activity-based Costing			

Chapter No.	Chapter Name
1	Joint Products and By-products Costing
2	Activity-based Costing

Joint Products and By-products Costing

Syllabus: *Joint Products and By-products Costing:* Meaning, treatment and apportionment of cost; Decision relating further processing

Theoretical Questions

1. What do you mean by joint products? Mention the main features of joint products.
2. What are by-products? Discuss the characteristics of by-products.
3. Distinguish between joint products and by-products.
4. Give a few examples of joint products and by-products.
5. What are co-products? State the significant features of co-products.
6. Discuss the common methods of allocating joint costs of production to joint products.
7. Discuss the methods of accounting for by-products.
8. What is split-off point? What is its significance in product costing?
9. How would you decide to process a product after split off point?
10. Discuss the guiding factors to decide whether to sell a product either at the split-off point or after further processing.

Numerical Questions

11. The following data have been extracted from the books of Bharat Mining Company Ltd.:

Joint Products	Weight per 1,000 kg. of Input
Coke	600 kg.
Coal tar	250 kg.
Benzol	150 kg.

Joint processing cost:

Direct materials cost – ₹60 per kg.; Direct wages – ₹50,000; Power cost – ₹25,000; Other charges – ₹15,000.

You are required to apportion joint costs on the basis of the weight of each product.

[Ans. Apportioned Joint Cost: Coke – ₹90,000; Coal Tar – ₹37,500; Benzol – ₹22,500.]

12. Find out the cost of joint products X, Y and Z using average cost method from the following particulars:

(i) Joint processing cost (cost up to the split-off point) – ₹31,50,000;

(ii) Number of units of joint products manufactured:

Product-X – 70,000 units; Product-Y – 35,000 units; Product-Z – 52,500 units.

[Ans. Share of Joint Cost: Product-A – ₹14,00,000; Product-B – ₹7,00,000; Product-C – ₹10,50,000.]

13. Four joint products A, B, C and D are produced simultaneously using a common manufacturing process. You are required to apportion joint cost using the weighted average (i.e., point value) method from the following information:

- (i) Joint processing cost (pre separation point cost) – ₹36,00,000;
 (ii) Number of units of joint products manufactured:
 Product-A – 60,000 units; Product-B – 45,000 units; Product-C – 30,000 units; Product-D – 45,000 units.
 (iii) The weight factor assigned to joint products:
 Product-A – 10; Product-B – 8; Product-C – 5; Product-D – 2.

[Ans. Apportioned Joint Cost: Product-A – ₹18,00,000; Product-B – ₹10,80,000; Product-C – ₹4,50,000; Product-D – ₹2,70,000.]

14. Prepare a statement showing costs of joint products and by-products from the following particulars:

Products	Yield (in Percentage of Input)
Joint Product-A	40%
Joint Product-B	45%
By-product-X	10%
Normal Loss	05%

10,000 units of raw material were introduced into the process at ₹20 per unit. Direct wages, power cost and other charges are ₹50,000, ₹18,000 and ₹12,000 respectively.

[Ans. Share of Joint Cost: Product-A – ₹1,17,895; Product-B – ₹1,32,632; Product-X – ₹29,473.]

15. You are required to apportion joint costs using standard cost method from the following particulars:

- (i) Joint processing cost (up to the split-off point) – ₹18,00,000;
 (ii) Number of units of joint products manufactured:
 Product-W – 1,00,000 units; Product-X – 1,00,000 units; Product-Y – 50,000 units; Product-Z – 75,000 units.
 (iii) Other relevant details are given below:

Particulars	Product-W	Product-X	Product-Y	Product-Z
Estimated sales value (₹)	5,00,000	4,00,000	2,50,000	3,75,000
Profit margin on sales	10%	5%	20%	20%
Selling & Distribution overhead (₹)	75,000	50,000	25,000	25,000
Conversion cost (₹)	75,000	80,000	25,000	75,000

[Ans. Apportioned Joint Cost (Based on standard cost of raw materials used):

Product-W – ₹6,00,000; Product-X – ₹5,00,000; Product-Y – ₹3,00,000; Product-Z – ₹4,00,000.]

- 16 You are required to apportion joint costs using market value method from the following particulars:

- (i) Joint processing cost (up to the split-off point) – ₹30,00,000;
 (ii) Number of units of Joint products manufactured:
 Product-A – 1,00,000 units; Product-B – 75,000 units; Product-C – 50,000 units; Product-D – 75,000 units.
 (iii) Market price per unit of joint products (at the split-off point):
 Product-A – ₹5.75; Product-B – ₹5; Product-C – ₹6.50; Product-D – ₹7.

[Ans. Share of Joint Cost: Product-A – ₹9,58,333; Product-B – ₹6,25,000; Product-C – ₹5,41,667; Product-D – ₹8,75,000.]

17. Four joint products A, B, C and D emerge from the processing of one basic raw material. You are required to apportion joint costs using sale value method from the following particulars:

MI-6 CommPass 4 (Semester IV)

Joint Products	Number of Units Produced	Selling Price per Unit (₹)
A	6,000 units	₹104
B	4,000 units	₹110
C	5,600 units	₹100
D	4,400 units	₹120

The company estimated a profit of 10% of sales value.

[Ans. Apportioned Joint Cost: Product-A – ₹5,61,600; Product-B – ₹3,96,000; Product-C – ₹5,04,000; Product-D – ₹4,75,200.]

18. In manufacturing the main Product-M, two by-products (X and Y) were incidentally produced from the same basic raw materials. You are required to (i) Apportion the joint costs; and (ii) Prepare a statement of Profit and Loss from the following details:

Joint processing cost (up to separation point) – ₹2,72,000

	Product-M	Product-X	Product-Y
Sales value (₹)	6,56,000	64,000	96,000
Post separation cost (₹)	—	18,800	19,200
Estimated net profit (percentage of sales)	—	20%	30%
Estimated selling expenses (percentage of sales)	20%	20%	20%

[Ans. Share of Joint Cost: Product-M – ₹2,33,600; Product-X – ₹19,600; Product-Y – ₹18,800;
Profit: Product-M – ₹2,91,200; Product-X – ₹12,800; Product-Y – ₹28,800.]

19. In the course of manufacturing of the main Product-N, two by-products (A and B) emerged. The joint costs of manufacture amount to ₹2,39,100. All the products are processed further after separation and sold as per the details given below:

	Product-N	Product-A	Product-B
Sales value (₹)	1,80,000	1,20,000	80,000
Post separation cost (₹)	12,000	10,000	8,000
Net profit (percentage of sales)	25%	20%	15%
Administration and selling expenses (% of cost of sales)	10%	10%	10%

You are required to apportion joint costs to the main product and by-products.

[Ans. Share of Joint Cost: Product-N – ₹1,09,500; Product-A – ₹76,400; Product-B – ₹53,200.]

20. You are required to apportion joint costs using net realizable value method from the following particulars:

(i) Joint processing cost (up to the split-off point) – ₹33,00,000.

(ii) Number of units of joint products manufactured:

Product-A – 1,00,000 units; Product-B – 75,000 units; Product-C – 50,000 units; Product-D – 75,000 units.

(iii) Market price per unit of joint products (after the split-off point):

Product-A – ₹11.50; Product-B – ₹10; Product-C – ₹13; Product-D – ₹14.

(iv) Further processing cost (i.e., cost incurred after split-off point)

Product-A – ₹1,50,000; Product-B – ₹50,000; Product-C – ₹50,000; Product-D – ₹50,000.

[Ans. Share of Joint Cost: Product-A – ₹10,00,000; Product-B – ₹7,00,000; Product-C – ₹6,00,000; Product-D – ₹10,00,000.]

21. Magma Ltd. manufactures three joint products A, B and C. The products can be processed further separately after the split-off point. The data relating to three products are as follows:

Particulars	Product-A	Product-B	Product-C
Output	15,000 units	12,000 units	9,000 units
Selling price per unit (at the split-off point)	₹30	₹36	₹39
Selling price per unit (after further processing)	₹42	₹52	₹54
Further processing cost	₹1,96,000	₹1,75,000	₹1,22,000
Share of joint cost of ₹1,20,000	₹54,000	₹36,000	₹30,000

- (i) Comment on the further processing decision of the above products.
 (ii) Determine the profit or loss of each product as per given decision.

[Ans.] (i) Therefore, (a) Product – A cannot be processed further as it leads to an incremental loss of ₹16,000. (b) Product – B should be processed further as it ensures incremental profit of ₹17,000. (c) Product – C needs to be processed further as it ensures incremental profit of ₹13,000.

(ii) Profit: Product – A ₹3,96,000; Product – B ₹4,13,000; Product – C ₹3,34,000.]

22. Maclin Ltd. manufactures three joint products A, B and C in a common manufacturing process. The facts and figures relating to three products are furnished below:

Particulars	Product-A	Product-B	Product-C
Output	4,000 units	10,000 units	6,000 units
Share of joint cost of ₹6,00,000 (in proportion to the output)	₹1,20,000	₹3,00,000	₹1,80,000
Selling price per unit (at the split-off point)	₹100	₹120	₹80
Further processing cost	₹2,00,000	₹2,20,000	₹2,40,000
Selling price per unit (after further processing)	₹160	₹140	₹120

- (i) Comment on the further processing decision of the above products.
 (ii) Determine the profit or loss of each product as per given decision.

[Ans.] (i) Therefore, (a) Product – A can be processed further as it ensures incremental profit of ₹40,000. (b) Product – B should be sold out at split-off point without further processing. (c) Product – C may be processed further or may not be processed that depends on the attitude of the management (after considering other non-cost factors).

(ii) Profit: Product – A ₹3,20,000; Product – B ₹9,00,000; Product – C ₹3,00,000]

23. Apportion joint cost among three joint products X, Y and Z by using survey (i.e., point value) method from the following information:

Joint Cost (up to separation point) – ₹9,00,000

Output Product-X 3,000 units; Product-Y 800 units; Product-Z 1,200 units.

Point values assigned to products Product-X 4; Product-Y 20; Product-Z 5.

[Ans.] Joint cost apportioned: X – ₹2,40,000; Y – ₹4,80,000; Z – ₹1,80,000]

24. Find out cost of joint products A and B using contribution margin method from the following data:

Joint processing cost – ₹83,000 (including fixed cost of ₹39,000)

Sales: Product-X 100 units @ ₹600; Product-Y 120 units @ ₹300

MI-8 *CommPass 4 (Semester IV)*

[Ans. Joint cost apportioned: X – ₹50,000; Y – ₹33,000.

(i) Share of variable cost (In the ratio of units produced): X – ₹20,000; Y – ₹24,000.

(ii) Share of fixed cost (In the ratio of contribution): X – ₹30,000; Y – ₹9,000.]

- 25.** Dutson Ltd. produces four joint products M, N, O and P from a basic raw material and provides you the following data:

Cost of basic raw materials – ₹2,50,000; Direct wages – ₹1,20,000; Direct expenses – ₹50,000; Factory overheads – ₹80,000.

Other relevant details are as follows:

Particulars	Product-M	Product-N	Product-O	Product-P
Output	10,000 units	20,000 units	30,000 units	40,000 units
Selling price at split off point	₹40	₹30	₹20	₹10

Apportion joint cost on the basis of sales value at the split off point and also determine product-wise profitability at that stage.

[Ans. Joint cost – ₹5,00,000; Share of joint cost: M – ₹1,00,000; N – ₹1,50,000, O – ₹1,50,000; P – ₹1,00,000 (on the ratio of sales value at split off point 4: 6: 6: 4).

Profit (at the split off point): M – ₹3,00,000; N – ₹4,50,000, O – ₹4,50,000; P – ₹3,00,000.]

- 26.** Buffa Ltd. produces three joint products A, B and C and provides you the following data:

Joint processing cost – ₹12,00,000

Other relevant details are as follows:

Particulars	Product-A	Product-B	Product-C
Output	2,000 units	500 units	1,000 units
Further processing cost	₹20,000	₹30,000	₹40,000
Selling price after further processing	₹250	₹1,200	₹900

Apportion joint cost on the basis of sales value after further processing and also determine product-wise profitability at that stage.

[Ans. Share of joint cost: A – ₹3,00,000; B – ₹3,60,000, C – ₹5,40,000 (on the ratio of sales value after further processing 5: 6: 9).

Profit (after further processing): A – ₹1,80,000; B – ₹2,10,000, C – ₹3,20,000.]

- 27.** Two products P and Q are obtained in a crude form and require further processing at a cost of ₹5 per unit for Product-P and ₹4 per unit for Product-Q. Their selling prices per unit after further processing are ₹13.75 and ₹8.75 respectively. During the period, the joint cost was ₹88,000 and the outputs were Product-P – 8,000 units and Product-Q – 6,000 units. The company intends to make a profit of 20% on sales value. Apportion joint costs on the basis of net realizable value.

[Ans. Share of joint cost: P – ₹64,000; Q – ₹24,000; Joint cost per unit : P – ₹8; Q – ₹4.

Ratio of net realizable value = ₹48,000:₹18,000 = 8:3]

Activity-based Costing

Syllabus: *Activity-based Costing:* Problems of traditional costing; meaning of Activity-based Costing (ABC); cost analysis under ABC; application of ABC (Simple problems)

Theoretical Questions

1. What is Activity-Based Costing? What are its characteristics?
2. How would you allocate overheads in Activity-Based Costing?
3. How is product cost determined in Activity-Based Costing?
4. What are the benefits in implementation of the ABC system?
5. Why is the ABC system preferred to the conventional costing system?
6. Explain the process of implementation of ABC with the help of a diagram.
7. State the steps involved in operationalising Activity-Based Costing.
8. Make a comparison between Traditional Costing and Activity-Based Costing.
9. What are the limitations of Activity-Based Costing?
10. What are limitations of traditional methods of absorbing overheads?

Numerical Questions

11. Compute the overhead rate for each cost driver from the following details:

Major Activities (Cost pools)	Production Overhead (₹)	Measures of Activities (Cost Drivers)	Annual Quantity of Cost Drivers
Machine maintenance	5,00,000	Machine hours	20,000 hours
Machine set up	1,00,000	Number of set ups	2,500 set ups
Purchase orders	3,00,000	Number of orders	5,000 orders
Materials handling	4,00,000	Number of requisitions	2,000 requisitions
Testing of products	1,50,000	Number of tests	200 tests
Inspection	2,00,000	Number of inspections	1,250 inspections

[Ans. ₹25 per hour; ₹40 per set up; ₹60 per order; ₹200 per requisition; ₹750 per test; ₹160 per inspection.]

12. A company manufactures two products, X and Y, using common facilities. The following details for a month are presented to you:

Machine activity expenses	₹6,00,000
Machine set up expenses	₹60,000
Purchase order expenses	₹70,000

	Product-X	Product-Y
Production during the month	2,000 units	4,000 units
Machine hours per unit	6 hours	2 hours
Number of machine set ups	30	90
Number of purchase orders	35	140

MI-10 *CommPass 4 (Semester IV)*

Compute the overhead absorbed per unit using ABC.

[Ans. Product-X – ₹194.50 per unit; Product-Y – ₹85.25 per unit]

13. A company manufactures three diverse products at a time using the same basic facilities. Compute the overhead to be absorbed for one of its product OTIM from the following details:

Main Activities	Annual Overheads (₹)	Cost Drivers Quantity (Annual)	Product OTIM's Consumption
Inspection	5,00,000	20,000 hours	800 hours
Machine set ups	1,00,000	10,000 set ups	100 set ups
Production orders	2,00,000	2,000 orders	12 orders
Material handling	20,000	1,000 requisitions	5 requisitions
Parts repair	4,80,000	12,000 parts	18 parts

[Ans. Overheads absorbed to Product OTIM – ₹24,020]

14. Jhonson Ltd. produces three products, namely, X, Y and Z. The company uses ABC system for absorption of overheads. The company expects to produce 1,000 units of X, 3,400 units of Y and 600 units of Z in the next year. The production overhead and other details of three products are as follows:

Major Activities	Product-X	Product-Y	Product-Z	Total	Production Overhead (₹)
Machine set ups	5 set ups	9 set ups	20 set ups	34 set ups	1,70,000
Engineering work	140 works	8 works	252 works	400 works	3,20,000
Inspection & Packing	1,000 units	3,400 units	600 units	5,000 units	4,70,000

You are required to:

- (i) Compute activity cost rates (i.e., cost driver's rates);
- (ii) Measure production overhead charged to three products.

[Ans. (i) Machine set ups – ₹5,000 per set up; Engineering work – ₹800 per work; Inspection & Packing – ₹94 per unit

(ii) X – ₹2,31,000; Y – ₹3,71,000; Z – ₹3,58,000]

15. A company manufactures conference tables and follows ABC to absorb overheads. The company has chosen the following cost pools and cost drivers for the production overhead:

Cost Pools	Production Overheads (₹)	Cost Drivers	Cost Drivers Quantity
Machine set ups	6,00,000	Number of set ups	5,000 set ups
Production orders	1,50,000	Number of orders	200 orders
Machine maintenance	2,40,000	Machine hours	4,000 hours
Parts repair	3,60,000	Number of parts	8,000 parts

- (i) You are required to compute the overhead rate for each cost driver.
- (ii) The company receives a special order of 10 conference tables that requires the following number of support activities:

Number of machine set ups – 30; Number of production orders – 15; Number of machine hours – 200; Number of parts to be repaired – 25.

How much production overhead would be charged to this order?

- (iii) Compute the factory cost for this order from the following cost data:

Direct material cost per unit – ₹5,000; Direct wages per unit – ₹1,500; Direct expenses per unit – ₹500.

[Ans. (i) ₹120 per set up; ₹750 per order; ₹60 per hour; ₹45 per parts. (ii) ₹27,975; (iii) ₹97,975]

16. Ericson Ltd. uses ABC system for absorption of overheads. The company has two overhead departments whose indirect costs are as follows:

Production overhead	₹5,00,000
Administration & Selling overhead	₹3,00,000

The company uses the following cost pools and cost drivers for absorption of overheads:

Major Activities (i.e., Cost Pools)	Measures of Activities (i.e., Cost Drivers)
Assembling parts	Number of units
Processing orders	Number of orders
Customer services	Number of customers

The following information shows the percentage of consumption of resources across activity cost pools:

	Assembling Parts	Processing Orders	Customer Services
Production overhead	50%	35%	15%
Administration & Selling overhead	10%	45%	45%
Total activity	1,000 units	250 orders	100 customers

You are required to:

- Allocate overheads to various activity cost pools;
- Compute cost driver's rates.

[Ans. (i) Assembling parts – ₹2,80,000; Processing orders – ₹3,10,000; Customer services – ₹2,10,000.

(ii) Assembling parts – ₹280 per unit; Processing orders – ₹1,240 per order; Customer services – ₹2,100 per customer.]

17. The production department of a manufacturing company has the responsibility for processing purchase invoices of its suppliers. The department paid indirect wages (fixed) of ₹4,50,000 per year and in addition spent ₹45,000 per year for printing of forms, postage, and other indirect expenses (variable). The company is capable of processing 15,000 purchase invoices per year. During the current year, the company processed 12,500 purchase invoices.

You are required to:

- Compute the rate for purchase invoice activity (break the activity rate into fixed and variable components).
- Calculate the cost of unused activity.

[Ans. (i) Purchase invoice activity rate – ₹33 per invoice; Fixed activity rate – ₹30 per invoice; Variable activity rate – ₹3 per invoice.

(ii) Cost of unused capacity – ₹75,000]

18. A company manufacturing two products furnishes the following data for the year 2007:

Products	Annual output (units)	Total machine hours	Total number of purchase orders	Total number of set-ups
X	1,250	5,000	40	5
Y	15,000	30,000	96	11
	16,250	35,000	136	16

The annual overheads are as follows:

Volume-related activity costs	₹1,37,500
Set-up related costs	₹2,05,000
Purchase-related costs	₹1,54,500

MI-12 *CommPass 4 (Semester IV)*

You are required to calculate per unit overhead charge of products X and Y based on —

- (i) Traditional method of charging overheads;
- (ii) Activity-based costing method.

[Ans. Per unit overhead charge	Product-X (₹)	Product-Y (₹)
(i) Traditional method	56.80	28.40
(ii) Activity-based costing	103.32	24.52]

- 19.** Maclin Ltd. produces two products, X and Y. Product-X is a low volume product with its annual sale limited to 10,000 units. Product-Y is a high volume product with an annual sale of 50,000 units. Both products require three direct labour hours each for completion. Total direct labour hours worked are 18,000. Details of material and labour cost per unit of each product are as follows:

	Product-X	Product-Y
Direct material cost	₹40	₹20
Direct labour cost @ ₹20 per hour	₹60	₹60

Manufacturing overheads for the year are ₹45,00,000.

On analysis of its events, the company observes that the following five activities act as cost drivers with regard to overhead cost. The relevant data are as follows:

Activity	Traceable Cost (₹)	Number of Transactions		
		Product-X	Product-Y	Total
Machine hours worked	9,00,000	5,000	10,000	15,000
Machine set-ups	12,00,000	2,000	1,000	3,000
Quality inspections	2,50,000	8,000	2,000	10,000
Material orders	11,00,000	5,000	500	5,500
Production runs	10,50,000	100	25	125
	45,00,000			

Calculate per unit factory cost of Product-X and Product-Y using:

- (i) Direct Labour Rate method of overhead absorption;
- (ii) Activity-Based Costing technique for overhead absorption; and
- (iii) Explain the difference in overhead absorption as per the two methods.

[Ans. (i) Factory cost (based on direct labour hour rate):	Product-X	₹175;
	Product-Y	₹155]

[Hints: Total direct labour hours—1,80,000 hours

Direct labour hour rate—₹25 per hour]

(ii) Factory cost (based on Activity-based costing):	Product-X	₹414;
	Product-Y	₹107.20

[Hints: Total manufacturing overheads assigned	Product-X	₹31,40,000
	Product-Y	₹13,60,000
Manufacturing overhead per unit	Product-X	₹314;
	Product-Y	₹27.20]

20. Compute the overhead rate for each cost driver from the following details:

Cost pools (Major activities)	Production Overhead (₹)	Cost Drivers (Measures of Activity)	Quantity of cost drivers
Purchase orders	6,00,000	Number of orders	4,000 orders
Materials handling	5,00,000	Number of requisitions	2,000 requisitions
Testing of products	80,000	Number of tests	500 tests
Inspection	2,50,000	Number of inspections	250 inspections

[Ans. Purchase orders – ₹150 per order; Material handling – ₹250 per requisition; Testing of products – ₹160 per test; Inspection – ₹1,000 per inspection.]

21. A company manufactures two products, M and N, using the same common facilities. The following details for a month are as follows:

Machine maintenance expenses – ₹60,00,000; Machine set up expenses – ₹6,00,000; Purchase Order expenses – ₹7,00,000.

Particulars	Product – M	Product – N
Production during the month	20,000 units	40,000 units
Machine Hours per unit	6 hours	2 hours
Number of machine set ups	300	900
Number of purchase orders	350	1,400

Compute overhead absorbed per unit using Activity Based Costing.

[Ans. **Cost Driver's Rate:** Machine maintenance – ₹30 per hour; Machine set-up – ₹500 per set up; Purchase order – ₹400 per order.

Overhead absorbed per unit: Product-M – ₹194.50; Product-N – ₹85.25.]

22. A company follows Activity Based Costing to absorb overheads. The company has chosen the following cost pools and cost drivers for the production overhead:

Cost Pools	Production Overheads (₹)	Cost Drivers	Cost Drivers Quantity
Machine set ups	12,00,000	Number of set ups	15,000 set ups
Production orders	3,00,000	Number of orders	600 orders
Machine maintenance	4,80,000	Machine hours	12,000 hours
Parts repair	7,20,000	Number of parts	24,000 parts

Required:

(i) Compute the overhead rate for each cost driver.

(ii) The company receives a special order that requires the following number of support activities:

Number of machine set ups – 180; Number of production orders – 75; Number of machine hours – 1,200; Number of parts to be repaired – 150.

How much production overhead would be charged to this order?

[Ans. **Cost Driver's Rate:** Machine set up – ₹80 per set up; Production order – ₹500 per order; Machine maintenance – ₹40 per hour; Parts repair – ₹30 per parts.

Production overhead to be charged to the special order – ₹1,04,400.]