

To buy classes visit our website
sumitrastogiclasses.com
and for further queries contact us on
8826965733, 9811229279, 9560978857

TEST PAPER – 05

(Chapters Covered – Introduction to Strategic Cost Management, Quality Cost Management, Activity Based Management & Just in Time (JIT), Evaluating Performance)

STRATEGIC COST MANAGEMENT

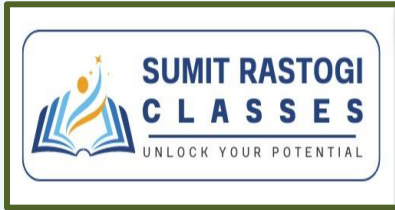
Time Allowed: 3 Hours

Full Marks: 100

**Section A contains Question Number 1. All parts of this question are compulsory.
Working notes should form part of the relevant answer.**

SECTION-A

- 1. Choose the correct answer from the given alternatives (you may write only the Roman number and the alphabet chosen for your answer) (2×15 = 30 Marks)**
 - (i) Which one of the following simply answers the question “What else will accomplish the purpose of the product, service or process we are studying?”**
 - (a) Value Engineering
 - (b) Value Analysis
 - (c) Business Process Re-engineering
 - (d) Supply Chain Strategy
 - (ii) Which of the following is not a principle of Business Process Re-engineering?**
 - (a) Organise work around outcomes, not tasks
 - (b) Capture information once and at the source
 - (c) Empower workers who use the process
 - (d) Rely heavily on hierarchy and supervision
 - (iii) Which of the following is/are not the quality parameter(s) for manufacturing organisations?**
 - (a) Reliability
 - (b) Durability
 - (c) Serviceability
 - (d) Courtesy/Friendliness
 - (iv) Kanban Japanese System under JIT Approach ensures.**
 - (a) Continuous supply of inventory or product
 - (b) Minimum and maximum level of stock to be maintained
 - (c) Inventory valuation
 - (d) All of the above



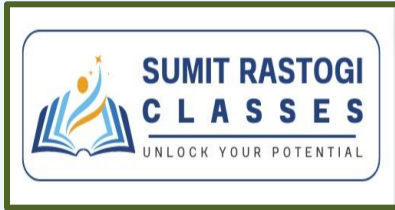
To buy classes visit our website
sumitrastogiclasses.com
and for further queries contact us on
8826965733, 9811229279, 9560978857

- (v) TONZ Ltd. manufactures two products BX and BZ using common material handling facility. The total budgeted material handling cost is ₹80,000. The other details are:

	Product BX	Product BZ
Number of units produced	20	40
Material moves per product line	15	5
Direct Labour hour per unit	100	100

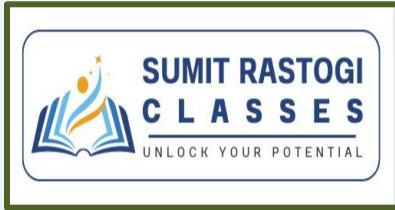
Under Activity Based Costing System the material handling cost to be allocated to product BZ (per unit) would be:

- (a) ₹400
(b) ₹500
(c) ₹1,500
(d) None of the above
- (vi) Which of the following quality costs is incurred when inferior products are delivered to customers?
(a) Prevention Costs
(b) Appraisal Costs
(c) External failure Costs
(d) Internal Failure Costs
- (vii) Production overheads of XYZ Ltd. for 500 units of product X are:
Machine oriented activity cost: ₹1,35,400.
Material ordering overheads: ₹69,570
Machine hours are 1.50 hours per unit and No. of material orders are 6 per unit.
What is the Machine Oriented Cost per unit and Material Ordering Cost per unit respectively?
(a) ₹270.80 & ₹139.14
(b) ₹180.53 & ₹23.19
(c) ₹23.19 & ₹180.53
(d) ₹139.14 & ₹270.80
- (viii) Nulook Ltd. uses a JIT system and backflush accounting. It does not use a raw material stock control account. During May, 8,000 units were produced and sold. The standard cost per unit is ₹100. This includes materials of ₹45. During May, ₹4,80,000 of conversion costs were incurred.
The debit balance on Cost of Goods Sold Account for May was:
(a) ₹8,00,000
(b) ₹8,40,000
(c) ₹8,80,000
(d) ₹9,20,000



To buy classes visit our website
sumitrastogiclasses.com
and for further queries contact us on
8826965733, 9811229279, 9560978857

- (ix) A factory of ROGO Ltd. has a key resource (bottleneck) of a facility M which is available for 48,000 minutes per week. The time taken per unit of product A in facility M is 6 minutes. Last week's actual output was 5,000 units of product A and actual factory cost (excluding material cost) was ₹1,20,000. What is throughput cost per week?
- (a) ₹1,20,000
 - (b) ₹1,00,000
 - (c) ₹75,000
 - (d) Insufficient information
- (x) Companies that would benefit from back-flush costing include companies:
- (a) Whose inventories vary from period to period.
 - (b) Companies that require audit trails.
 - (c) Which have fast manufacturing lead times.
 - (d) None of these
- (xi) YEN Ltd., adopting Standard Costing System in its factory, budgets for fixed overhead of ₹50,000 and production of 10,000 units for a month of year 2025. Actual production is 9,500 units. If the fixed overhead cost is increased to ₹52,000, the fixed overhead volume variance will be:
- (a) ₹1,000 (Adv.)
 - (b) ₹2,000 (Fav.)
 - (c) ₹2,500 (Fav.)
 - (d) ₹2,500 (Adv.)
- (xii) Standard Cost and Budgeted Cost are:
- (a) Interrelated but not interdependent
 - (b) Interdependent but not interrelated
 - (c) Interrelated and interdependent
 - (d) None of the above
- (xiii) A factory is trying to establish standard time for a certain job. Workers arrive at 8:00 a.m., during the day take tea and lunch breaks for $1\frac{1}{2}$ an hours, machine need set up for $\frac{1}{2}$ hour and workers leave by 4 p.m. A worker can ideally produce a unit of output if he is at his job for two hours. How much is the standard labour hour per unit?
- (a) 2.67 hours
 - (b) 2.00 hours
 - (c) 2.37 hours
 - (d) 2.57 hours



To buy classes visit our website
sumitrastogiclasses.com
and for further queries contact us on
8826965733, 9811229279, 9560978857

(xiv) BOSAN Ltd. using standard costing system provides the following information pertaining to Direct Labour for its product JUM for the month of May, 2023:

Standard Direct Labour Rate per hour : ₹16
Actual Direct Labour Rate per hour : ₹14.50
Labour Rate variance : ₹15,000 (Fav.)
Standard hours allowed for Actual production 8,000 hours
Actual output is 800 units.

How many Direct Labour hours were worked during the month of May 2023?

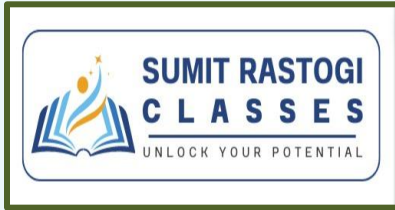
- (a) 12,000 hours
- (b) 11,000 hours
- (c) 10,000 hours
- (d) None of the above

(xv) A Co. producing output X and Y uses standard costing.

Budgeted Rate per unit : X - ₹3 per unit and Y - ₹2.25 per unit
Budgeted Overhead : ₹860
Budgeted Time : 3,440 hours.
Actual Output : X-200 units and Y-100 units.
Actual Time : 3,200 hours
Actual Overhead : ₹875

Compute: Overhead Volume Variance.

- (a) ₹35 (A)
- (b) ₹35 (F)
- (c) ₹25 (F)
- (d) ₹15 (A)



To buy classes visit our website
sumitrastogiclasses.com
and for further queries contact us on
8826965733, 9811229279, 9560978857

SECTION-B

2. (a) “Lean Accounting is the application of Lean Philosophy to all accounting and finance processes and systems” – In this context, Align the Principles and Practices of Lean Accounting. **(7 Marks)**
2. (b) A Factory of MOBN Ltd. a manufacturing company using Throughput Accounting System produces products S and T for a month in 2025 details of which are presented below:

Particulars	Product S	Product T
Selling price per unit (₹)	110	120
Direct Material cost per unit (₹)	50	76
Direct Labour Cost p.u. (₹)	12	10
Variable Overheads p.u. (₹)	20	15
Production (units)	20,000	30,000
Time required on the bottleneck resources (Hrs. p.u.)	5	4

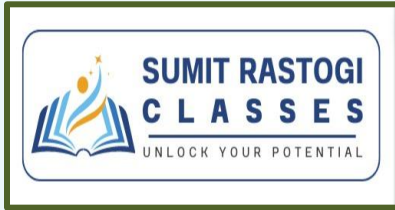
Total fixed overhead is ₹4,50,000 each month. There are 2,30,000 bottleneck hours available each month.

Required:

Calculate the following:

- (i) Total Factory Cost (TFC)
- (ii) Cost per factory hour
- (iii) Return per bottleneck hour for both Product S and Product T
- (iv) Throughput Accounting (TA) ratios for both Product S and Product T
- (v) Throughput cost per month
- (vi) Efficiency Ratio

(7 Marks)



To buy classes visit our website
sumitrastogiclasses.com
and for further queries contact us on
8826965733, 9811229279, 9560978857

3. (a) DOXIN Ltd., a manufacturing company operating the Budgetary Control and Standard Costing System, has furnished the following information:

Particulars	Product P	Product R
Standard price per unit (₹)	24	30
Actual price per unit (₹)	30	40
Standard Input (Kg.)	50	?
Actual Input (Kg.)	40	70
Material Price Variance (₹)	?	?
Material Usages Variances (₹)	?	600 (Adv.)
Material Cost Variance (₹)	?	?

Material Mix Variance for both products together was ₹90 (Adv.)

Required: Assess the following which includes missing variances as indicated by Question Marks in the above table:

- (i) Material Mix Variance (Product P and R)
- (ii) Material Usage Variance (Product P)
- (iii) Material Price Variance (Product P and R)
- (iv) Material Cost Variance (Product P and R)

(7 marks)

3. (b) The following are the information regarding overheads of a company:

Overhead Cost Variance = ₹2,800 (A)

Overhead Volume Variance = ₹2,000 (A)

Budgeted Overheads = ₹12,000

Actual Overhead recovery rate = ₹8 per hour

Budgeted hours for the period = 2,400 hours

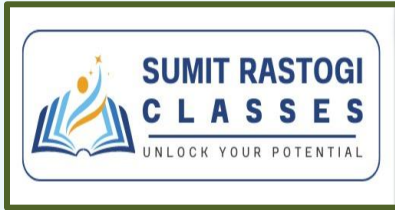
Required:

- (i) Overhead Expenditure Variance
- (ii) Actual incurred Overheads
- (iii) Actual hours for actual production
- (iv) Overhead Capacity Variance
- (v) Overhead Efficiency Variance
- (vi) Standard hours for actual production
- (vii) Standard Rate per hour

(7 marks)

4. (a) What are Costs of Quality? How can you classify Quality Costs into several useful groups for better management?

(7 marks)



To buy classes visit our website
sumitrastogiclasses.com
and for further queries contact us on
8826965733, 9811229279, 9560978857

4. (b) Vikas Associates a firm of Chartered Accountants offers three different types of services, namely, accounting and auditing, taxation and management consultancy. Each service is charged on the basis of number of billable hours. The average charge per billable hours is ₹500. For the year ending 31.03.2019 the firm projects the following estimate of direct and indirect costs:

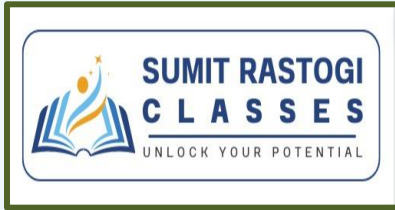
		₹ (Lakhs)	
Direct Costs:	Accounting and Auditing	100.00	
	Taxation	100.00	
	Management Consultancy	50.00	250.00
Indirect Costs:	Planning and Review	7.50	
	Computer Processing	7.20	
	Professional Salaries	5.60	
	Books, Seminars, periodicals	1.80	
Indirect Costs:	Programming Costs	8.00	
	Building Costs	4.90	
	General Administration Costs	15.00	50.00
	Total		300.00

Until 31.03.2018 the firm has been allocating the indirect costs on the basis of billable hours. For the year ending 31.03.2019 it was decided to introduce a system of activity-based costing to capture the indirect cost more accurately. The following data were gathered accordingly:

Particulars	Accounting and Auditing	Taxation	Management Consultancy
Billable hours	55,000	35,000	10,000
EDP Hours	5,000	2,500	500
Professionals (No)	30	16	10
Book, Seminars and Periodicals	57,500	62,500	60,000
(₹) Programming hours	1,250	500	2,250
Building (Sqft.) space occupied	8,000	4,000	2,000
Administration (No. of clients)	150	250	100

Required:

- Prepare a comparative profitability statement on the basis of (A) conventional costing and (B) activity-based costing (ABC)
- Any suggestion for improving the billable charge on the basis of ABC? **(7 marks)**



To buy classes visit our website
sumitrastogiclasses.com
and for further queries contact us on
8826965733, 9811229279, 9560978857

5. (a) Write a short note on Six Sigma in quality control process. (7 marks)
5. (b) “Value Analysis is a methodical approach to sharpening the efficiency and effectiveness of any process” – In this context, Summarise the phases of Value Analysis. (7 marks)
6. (a) ANTOX Ltd. is producing a product in 10 batches each of 15,000 units in a year and incurring following overheads thereon:

	Amount (₹)
Material Procurement	22,50,000
Maintenance	17,30,000
Set-up	6,84,500
Quality Control	5,14,800

The prime costs for the year amounted to ₹3,01,39,000.

The company is using currently the method of absorbing overheads on the basis of prime cost. Now it wants to shift to activity-based costing. Information relevant to activity drivers for the year are as under:

Activity Driver	Activity Volume
No. of purchase orders	1,500
Maintenance hours	9,080
No. of set-ups	2,250
No. of Inspections	2,710

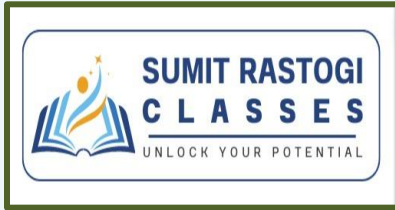
The company has produced a batch of 15,000 units and has incurred ₹26,38,700 and ₹3,75,200 on materials and wages respectively.

The usage of activities of the said batch are as follows:

Material Orders	48 orders
Maintenance Hours	810 hours
No. of Set-ups	40
No. of Inspections	25

Required:

- (i) Evaluate cost of product per unit on absorption costing basis for the said batch.
- (ii) Assess the cost driver rate.
- (iii) Analyze the total cost per unit of output of the said batch on the basis of activity-based costing. (7 Marks)



To buy classes visit our website
sumitrastogiclasses.com
and for further queries contact us on
8826965733, 9811229279, 9560978857

6. (b) DOTSON Ltd. has a manufacturing division which makes a product to which the following details relate:

	Per unit (₹)
Direct Material: 5 kg at ₹20	100
Direct Labour: 12 hours at ₹20	240
Variable Overheads: 12 hours at ₹10	120
Relevant fixed overheads are based at ₹1,00,000 per month and planned output is 2,000 units per month. The selling price is ₹550 per unit. During a recent month, when output was 1,800 units, the following actual costs were incurred.	

	₹
Direct Materials (8,500 kg.)	1,72,000
Direct Labour (20,000 hours)	4,20,000
Variable Overhead	2,20,000
Fixed Overhead	98,000
	9,10,000
Profit	40,000
Sales Value	9,50,000

Required:

- (i) Analyse the variances which occurred during the month.
- (ii) Reconcile the actual profit with standard profit, showing the causes of differences.

(7 marks)

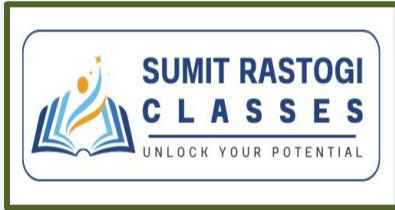
7. (a) Distinguish between Cost Reduction and Cost Control.

(7 marks)

7. (b) The budgeted output of SAB Ltd., a single product manufacturing company for the year ending 31st March was 5,000 units. The financial results in respect of the actual output of 4,800 units achieved during the year were as under:

	₹
Direct Material	29,000
Direct Wages	45,000
Variable Overheads	72,500
Fixed Overheads	40,000
Profit	37,000
Sales	2,23,500

The standard wage rate is ₹4.50 per hour and the standard variable overhead rate is ₹7.50 per hour.



To buy classes visit our website
sumitrastogiclasses.com
and for further queries contact us on
8826965733, 9811229279, 9560978857

The cost accounts recorded the following variances for the year:

Variances	Favourable (₹)	Adverse (₹)
Material Price		70
Material Usage		130
Wage rate	450	
Labour Efficiency		2,250
Variable Overhead Expenses	3,000	
Variable Overhead Efficiency		3,500
Fixed Overhead Expenses		2,500
Selling Price	7,500	

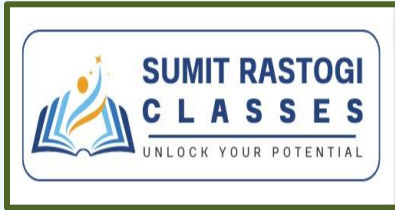
Required:

- (i) Prepare the standard product cost sheet per unit.
- (ii) Compute the Fixed Overhead volume variances, Sales volume variance, Sales price variance and Standard profit for the year.
- (iii) Prepare a statement showing the reconciliation of Standard profit and the Actual Profit. (7 marks)

8. (a) XY provides accountancy services and has three different categories of client: limited companies, self-employed individuals, and employed individuals requiring taxation advice. XY currently charges its clients a fee by adding a 20% mark-up to total costs. Currently the costs are attributed to each client based on the hours spent on preparing accounts and providing advice.

XY is considering changing to an activity-based costing system. The annual costs and the causes of these costs have been analysed as follows:

Particulars	₹
Accounts preparation and advice	7,20,000
Requesting missing information	50,000
Issuing fee payment reminders	30,000
Holding client Meetings	60,000
Travelling to clients	40,000
	9,00,000



To buy classes visit our website
sumitrastogiclassses.com
and for further queries contact us on
8826965733, 9811229279, 9560978857

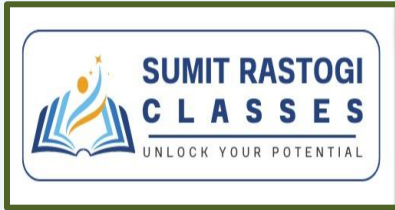
The following details relate to three of XY's clients and to XY as a whole:

	Client			
	A	B	C	XY
Hours spent on preparing accounts and providing advice	1,000	250	340	18,000
Requests for missing information	4	10	6	250
Payment reminders sent	2	8	10	400
Client meetings held	4	1	2	250
Kms. Travelled to meet clients	150	600	0	10,000

Based on the above information, answer the following questions:

- (i) Calculate cost driver rates
- (ii) Total cost under ABC method for A, B and C
- (iii) Client fees for A, B and C under original and ABC method
- (iv) Calculate the effect on fees charged to each of these three clients for changing to the new costing system. **(7 marks)**

8. (b) Explain the term Business Process Re-engineering. **(7 marks)**



To buy classes visit our website
sumitrastogiclasses.com
and for further queries contact us on
8826965733, 9811229279, 9560978857

ANSWERS OF TEST PAPER – 05

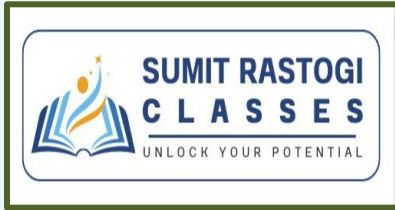
(Chapters Covered – Introduction to Strategic Cost Management, Quality Cost Management, Activity Based Management & Just in Time (JIT), Evaluating Performance)

STRATEGIC COST MANAGEMENT

SECTION-A

ANS.1

- (i) (a) Value Engineering
- (ii) (d) Rely heavily on hierarchy and supervision
- (iii) (d) Courtesy/Friendliness
- (iv) (a) Continuous supply of inventory or product
- (v) (b) ₹500
- (vi) (c) External Failure Costs
- (vii) (a) ₹270.80 & ₹139.14
- (viii) (b) ₹8,40,000
- (ix) (c) ₹75,000
- (x) (c) which have fast manufacturing lead times'
- (xi) (d) ₹2,500 (Adv.)
- (xii) (a) Interrelated but not interdependent
- (xiii) (a) 2.67 hours
- (xiv) (c) 10,000 hours
- (xv) (a) ₹35 (A)



To buy classes visit our website
sumitrastogiclasses.com
and for further queries contact us on
8826965733, 9811229279, 9560978857

SECTION-B

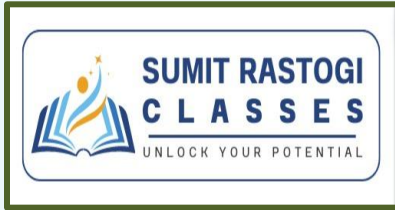
ANS. 2 (a)

Principles and Practices of Lean Accounting

S. No.	Principles	Practices
1.	Lean & simple business accounting	Continuously eliminates waste from the transactions, processes, reports, and other accounting methods.
2.	Accounting processes that support lean transformation	• Management control & continuous improvement • Cost Management • Customer & supplier value and cost management
3.	Clear & timely communication of information	• Financial reporting • Visual reporting of financial & non-financial performance measurements. • Decision making
4.	Planning from a lean perspective	• Planning & budgeting • Impact of lean improvement • Capital planning • Invest in people
5.	Strengthen internal accounting control	• Internal control based on lean operational controls • Inventory valuation

ANS. 2 (b)

- (i) Direct labour = $(12 \times 20,000) + (10 \times 30,000) = ₹5,40,000$
 Variable OH = $(20 \times 20,000) + (15 \times 30,000) = ₹8,50,000$
 Total Factory Cost = $4,50,000 + 5,40,000 + 8,50,000 = ₹18,40,000$
- (ii) Cost per factory hour = Total factory Cost/Total hours available
 $= 18,40,000/2,30,000 = ₹8 \text{ per hour}$
- (iii) Return per hour for S = $(SP - \text{Material Cost})/\text{Hours per unit} = (110 - 50)/5 = ₹12$
 Return per hour for T = $(120 - 76)/4 = ₹11$
- (iv) Throughput Accounting Ratio for S = Return per hour/Cost per hour = $12/8 = 1.5$
 Throughput Accounting Ratio for T = $11/8 = 1.375$
- (v) Standard hours of throughput for the week = $(20,000 \times 5) + (30,000 \times 4) = 2,20,000 \text{ Hours}$
 Throughput cost per week = $2,20,000 \times 8 = ₹17,60,000$.
- (vi) Efficiency Ratio = $\text{Throughput Cost} \times 100/\text{Actual Factory Cost} = 17,60,000 \times 100/18,40,000 = 95.65\%$



To buy classes visit our website
sumitrastogiclasses.com
and for further queries contact us on
8826965733, 9811229279, 9560978857

ANS. 3 (a)

(i) **Material Mix Variance** = Standard Price per unit × (Revised Standard Quantity – Actual Quantity)

Material	Calculation	Variance (₹)
P	$24 \times (55^* - 40)$	360 (F)
R	$30 \times (55^* - 70)$	450 (A)
Total		90 (A)

*RSQ has been calculated by the following formula: Total Actual Quantity/Total Standard Quantity × Individual Standard Quantity

Material P: $(50/100 \times 110) = 55$

Material R: $(50/100 \times 110) = 55$

(ii) **Material Usage Variance** = Standard Price per unit × (Standard Quantity – Actual Quantity)

Material	Calculation	Variance (₹)
P	$24 (50 - 40)$	240

Calculation of Standard Input of Material R:

Material Usage Variance = Standard Price per unit × (Standard Quantity – Actual Quantity)

We have, $30 (a - 70) = 600 (A)$, where a is the Standard Input of Material R.

$30a = 2,100 - 600 = 1,500$

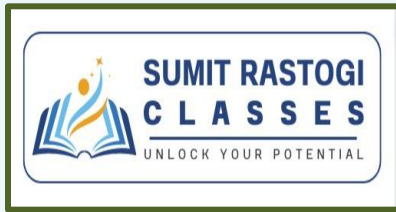
Or, $a = 1,500/30 = 50$

(iii) **Material Price Variance** = Actual Quantity × (Standard Price per unit – Actual Price per unit)

Material	Calculation	Variance (₹)
P	$40 (24 - 30)$	240 (A)
R	$70 (30 - 40)$	700 (A)
Total		940 (A)

(iv) **Material Cost Variance** = Standard Price per unit × Standard Quantity – Actual Price per unit × Actual Quantity

Material	Calculation	Variance (₹)
P	$24 \times 50 - 30 \times 40$	NIL
R	$30 \times 50 - 40 \times 70$	1,300 (A)
Total		1,300 (A)



To buy classes visit our website
sumitrastogiclasses.com
and for further queries contact us on
8826965733, 9811229279, 9560978857

ANS. 3 (b)

- (i) **Overhead Expenditure Variance = Overhead Cost Variance – Overhead Volume Variance**
 $= 2,800 - 2,000 = 800$ (A)
- (ii) **Overhead Expenditure Variance = Budgeted Overhead – Actual Overhead**
 $- 800 = 12,000 - \text{Actual Overhead}$
Actual Overheads = ₹12,800
- (iii) **Actual Rate per hour = Actual Overheads/Actual Hours**
 $8 = 12,800/\text{Actual Hours}$
Actual hours = 1,600
- (iv) **Standard Overheads = Standard overhead rate per hour × Actual hours**
 $= 5 \times 1,600 = ₹8,000$
Overhead Capacity Variance = Standard Overheads – Budgeted Overheads
 $= 8,000 - 12,000 = 4,000$ (A)
- (v) **Overhead Efficiency Variance = Recovered Overheads – Standard Overheads**
 $= 10,000 - 8,000 = 2,000$ (F)
- (vi) **Overhead Volume Variance = Recovered Overheads – Budgeted Overheads**
 $- 2,000 = \text{Recovered Overheads} - 12,000$
Recovered Overheads = ₹10,000
Standard hours for Actual Production = Recovered Overheads/Standard rate per hour
 $= 10,000/5 = 2,000$ Hours
- (vii) **Standard Overhead rate per hour = Budgeted Overheads/Budgeted Hours**
 $= 12,000/2,400 = ₹5$

ANS. 4 (a)

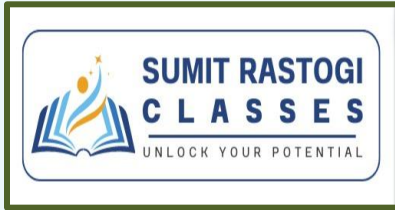
Costs of quality are costs of non-conformance, i.e., for having poor quality of product or service. If perfect quality is maintained, then there is no cost.

Costs of quality can be classified into the following groups for better management:

- (1) Prevention costs, (2) Appraisal costs, (3) Internal failure costs, (4) External failure cost, (5) Opportunity costs (e.g. loss of contribution).

(1) Prevention Costs are all costs incurred in the process of preventing poor quality from occurring. They include quality planning costs, such as the costs of developing and implementing a quality plan. Also included are the costs of product and process design, from collecting customer information to designing processes that achieve conformance to specifications.

Example: Quality training. Quality circles, Statistical process control activities, System Development for prevention, Quality improvement.



To buy classes visit our website
sumitrastogiclasses.com
and for further queries contact us on
8826965733, 9811229279, 9560978857

(2) **Appraisal Costs** are incurred in the process of uncovering defects. They include the cost of quality inspections, product testing, and performing audits to make sure that quality standards are being met. Also included in this category are the costs of worker time spent measuring quality and the cost of equipment used for quality appraisal.

Example: Testing and inspecting materials, final product testing and inspecting. WIP testing and inspecting, package inspection and depreciation of testing equipment.

(3) **Internal Failure Costs** are associated with discovering poor product quality before the product reaches the customer site. One type of internal failure cost is rework, which is the cost of correcting the defective item. Sometimes the item is so defective that it cannot be corrected and must be thrown away. This is called scrap, and its costs include all the material, labor, and machine cost spent in producing the defective product.

Example: Cost of scrap (net of realization), cost of spoilage, cost of rework. down time due to defect in quality and retesting.

(4) **External Failure Costs** are incurred when inferior products are delivered to customers. They include cost of handling customer complaints, warranty replacements, repairs of returned products and cost arising from a damaged company reputation.

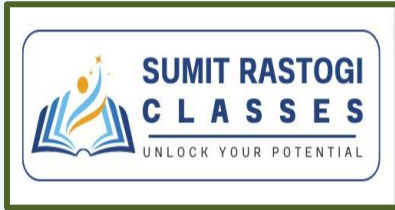
Example: Cost of field servicing, cost of handling complaints, warranty repairs, lost sales, warranty replacements.

(5) **Opportunity Costs** are costs of opportunities foregone (e.g., loss of contribution on lost sales due to defects, poor design, etc.).

ANS. 4 (b)

Statement Showing calculation of Indirect Costs rate per unit of cost driver:

Total Overheads	₹	Drivers	No.	Cost per unit of Drivers	
Planning and Review	7,50,000	Billable Hours	1,00,000	7,50,000/1,00,000	7.5
Computer Processing	7,20,000	EDP Hours	8,000	7,20,000/8,000	90
Professional Salaries	5,60,000	Professional (No.)	56	5,60,000/56	10,000
Programming costs	8,00,000	Programming Hours	4,000	8,00,000/4,000	200
Building Costs	4,90,000	Space Occupied (Sq. Ft.)	14,000	4,90,000/14,000	35
General administration Costs	15,00,000	No. of Clients	500	15,00,000/500	3,000
Total Cost	48,20,000				



To buy classes visit our website
sumitrastogiclasses.com
and for further queries contact us on
8826965733, 9811229279, 9560978857

Schedule of Allocation of Indirect Costs under ABC:

₹ in Lakhs

Overhead	Accounting & Auditing (₹)	Taxation (₹)	Management Consulting (₹)
Planning and Review @7.5 per Billable hour	4.125	2.625	0.750
Computer Processing @90 per EDP hour	4.500	2.250	0.450
Professional Salaries @10,000 per professional	3.000	1.600	1.000
Books, Seminar, Periodicals (Given)	0.575	0.625	0.600
Programmed Costs @200 Per Programming hour	2.500	1.000	4.500
Building Costs @35 per Sq. ft.	2.800	1.400	0.700
Administration Cost @3,000 per client	4.500	7.500	3.000
Total	22	17	11

Comparative Profitability Statement:

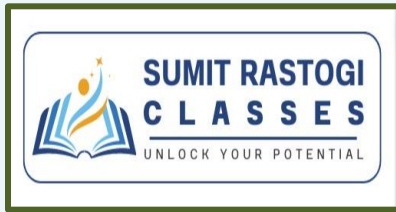
	Conventional			ABC		
	A & A	Tax	MGMT	A & A	Tax	MGMT
Revenue	275.00	175.00	50.00	275.00	175.00	50.00
Direct Costs	(100.00)	(100.00)	(50.00)	(100.00)	(100.00)	(50.00)
Indirect Costs	(27.50)	(17.50)	(5.00)	(22.00)	(17.00)	(11.00)
Profit	147.50	57.50	-5.00	153.00	58.00	-11.00

Suggestions:

On the basis of the ABC system the total cost of each division/service is ₹122 Lakhs, ₹117 Lakhs and ₹61 Lakhs respectively. Hence the billable charge should be revised accordingly. Assuming the same margin i.e. 40% of revenue overall or $66\frac{2}{3}\%$ on cost the revenue works out to:

	Accounting & Auditing (₹)	Taxation (₹)	Management Consulting (₹)
Cost (₹ in Lakhs)	122.00	117.00	61.00
Margin (₹ in Lakhs)	81.33	78.00	40.67
	203.33	195.00	101.67
Billable Hours	55,000	35,000	10,000
Charge per Hour (₹)	370	560	1,017

The analysis clearly reveals that Management Accountancy services are under charged.



To buy classes visit our website
sumitrastogiclasses.com
and for further queries contact us on
8826965733, 9811229279, 9560978857

ANS. 5 (a)

Six Sigma in Quality Control Process:

Six Sigma is a set of practices originally developed by Motorola to systematically improve processes by eliminating defects. A defect is defined as non-conformity of a product or service to its specifications. While the particulars of the methodology were originally formulated by Bill Smith at Motorola in 1986, Six Sigma was heavily inspired by six preceding decades of quality improvement methodologies such as quality control, TQM, and Zero Defects.

Like its predecessors, Six Sigma asserts the following:

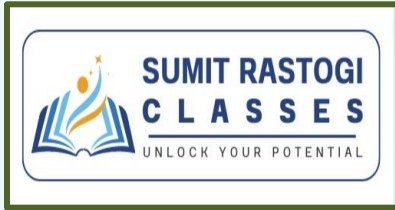
- (a) Continuous efforts to reduce variation in process outputs are key to business success.
- (b) Manufacturing and business processes can be measured, analyzed, improved and controlled.
- (c) Succeeding at achieving sustained quality improvement requires commitment from the entire organization, particularly from top-level management.

The term "Six Sigma" refers to the ability of highly capable processes to produce output within specification. In particular, processes that operate with six sigma quality produce at defect levels below 3.4 defects per (one) million opportunities (DPMO). Six Sigma's implicit goal is to improve all processes to that level of quality or better.

ANS. 5 (b)

The Phases of Value Analysis are summarized as follows:

1. **Origination:** The phase of origination starts with the identification of a project to undertake value analysis. After selecting the project, a project team consisting of experts from various fields and departments is constituted.
2. **Information:** The second phase is that of collecting relevant information. In this phase, the relevant facts relating to specifications, drawings, methods, materials, etc. are collected. Costs are also ascertained for each of the elements that are being studied.
3. **Functional Analysis:** Then follows the important phase of functional analysis. After familiarisation with the relevant facts & figures, a functional analysis is carried out to determine the functions and uses of the product and its components. The cost and importance of each function are identified. A value index is computed on the basis of cost benefit ratio for each of the functions.
4. **Innovation:** This is the creative phase concerned with the generation of new alternatives to replace or remove the existing ones. The objective is to produce ideas and to formulate alternative means and methods for accomplishing the essential functions and improving the value of the element under consideration.
5. **Evaluation:** During the stage of evaluation, each and every alternative is analysed and the most promising alternatives are selected. These alternatives are further examined for economic and technical feasibility. The alternatives finally selected must be capable of performing the desired functions satisfactorily.
6. **Choice:** In this phase, the decision makers choose the best of alternatives. The programs and action plans are then developed to implement the chosen alternative.



To buy classes visit our website
sumitrastogiclasses.com
and for further queries contact us on
8826965733, 9811229279, 9560978857

7. **Implementation:** The chosen alternative is put to the actual use with the help of the programs and action plans. The progress of implementation is continuously monitored and followed up to ensure that the desired results are achieved.

ANS. 6 (a)

Total Overheads = 22,50,000 + 17,30,000 + 6,84,500 + 5,14,800 = ₹51,79,300

Absorption of overhead on the basis of Prime Cost

= $51,79,300 \times 100/3,01,39,000 = 17.18\%$

- (i) **Calculation of Cost of Product per unit on the basis of absorption costing method.**

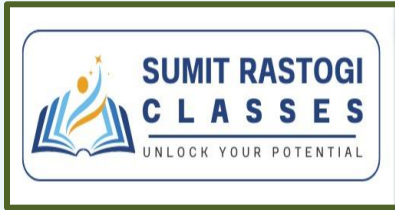
Particulars	Amount (₹)
Materials	26,38,700.00
Wages	3,75,200.00
Prime Cost	30,13,900.00
Overhead Cost (17.18% of Prime Cost)	5,17,788.02
Cost of Product	35,31,688.02
No. of unit in a batch	15,000 units
Cost of Product Per Unit	₹235.45

- (ii) **Statement Showing Cost Driver Rate:**

Overhead	Cost (₹)	Cost Driver	Cost Driver Rate (₹)
Material Procurement	22,50,000	No. of Purchase Orders = 1,500 Order	1,500 per order
Maintenance	17,30,000	Maintenance Hours = 9,080 hours	190.53 per hour
Set-up	6,84,500	No. of Set-up = 2,250 Set up	304.22 per set up
Quality Control	5,14,800	No. of inspections = 2,710 inspections	189.96 per inspection

- (iii) **Statement Showing Total Cost and per unit cost based on Activity Based Costing:**

Particulars	Total Cost (₹)	Per Unit Cost (₹)
Materials	26,38,700.00	175.91
Wages	3,75,200.00	25.01
Prime Cost	30,13,900.00	200.92
Overhead Activity Cost:		
Material Order Cost @₹1,500 per order	72,000.00	4.80
Maintenance Cost @₹190.52 per hour	1,54,329.30	10.29
Set-up Cost @₹304.22 per set-up	12,168.80	0.81
Quality Control Cost @₹189.96 per inspection	4,749.00	0.32
Total Cost	32,57,147.10	217.14



To buy classes visit our website
sumitrastogiclasses.com
and for further queries contact us on
8826965733, 9811229279, 9560978857

ANS. 6 (b)

(i) Calculation of Variances:

Material Variances:

Standard Quantity for Actual Output = $1,800 \times 5 = 9,000$ Kg.

Standard Price = ₹20/Kg.

Actual Quantity = 8,500 Kg.

Total material cost variances = Standard cost – Actual cost = $(9,000 \times 20) - 1,72,000 =$
₹8,000 (F)

Materials Price Variance = (Std. Price – Actual Price) $\times$ Actual Quantity
 $= 20 \times 8,500 - 1,72,000 =$ **2,000 (A)**

Material Usage Variance = (Standard Quantity – Actual Quantity) $\times$ Std. Price
 $= (9,000 - 8,500) \times 20 =$ **₹10,000 (F)**

Labour Variances:

Standard Hours for Actual Output = $1,800 \times 12 = 21,600$ hours

Standard Rate = ₹20/hour

Actual hours = 20,000 hours

Actual Rate = $4,20,000/20,000 =$ ₹21/hour

Labour cost variances = Standard cost – Actual cost
 $= (21,600 \times 20) - 4,20,000 =$ **₹12,000 (F)**

Labour rate variance = (Std. rate – Actual rate) $\times$ Actual hours
 $= (20 - 21) \times 20,000 =$ **₹20,000 (A)**

Labour Efficiency variance = (Standard hours – Actual hours) $\times$ Std. rate
 $= [21,600 - 20,000] \times 20 =$ **32,000 (F)**

Variable Overhead Variances:

Standard Hours for Actual Output = $1,800 \times 12 = 21,600$ hours

Standard Rate = ₹10/hour

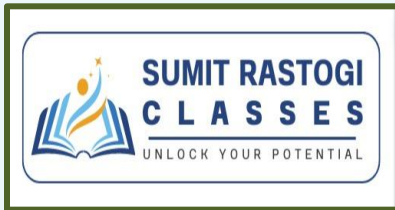
Actual hours = 20,000 hours

Actual rate = $2,20,000/20,000 =$ ₹11/hour

Variable Overhead Expenditure Variance = (Std. rate – Actual rate) $\times$ Actual hours
 $= [10 - 11] \times 20,000 =$ **₹20,000 (A)**

Variable Overhead Efficiency Variance = (Standard hours – Actual hours) $\times$ Std. rate
 $= [21,600 - 20,000] \times 10 =$ **₹16,000 (F)**

Total Variable Overhead Variance = Standard cost – Actual cost = $(21,600 \times 10) - 2,20,000$
 $=$ **₹4,000 (A)**



To buy classes visit our website
sumitrastogiclasses.com
and for further queries contact us on
8826965733, 9811229279, 9560978857

Fixed Overhead Variances

Standard hours for actual production during the month = 21,600 hours

Budgeted Hours = $2,000 \times 12 = 24,000$ hours

Standard fixed overhead rate per hour = $1,00,000/24,000 = ₹4.16667$

Recovered Fixed Overheads = Standard fixed overhead rate per hour $\times$ Standard hours for actual production

= $4.16667 \times 21,600 = ₹90,000$

Standard Fixed Overheads = Standard Fixed overhead rate per hour $\times$ Actual hours for actual production

= $4.1667 \times 20,000 = ₹83,333$

Fixed Overhead Efficiency Variance = Recovered Fixed Overheads – Standard Fixed Overheads

= $90,000 - 83,333 = ₹6,667$ (F)

Fixed Overhead Capacity Variance = Standard Fixed Overheads – Budgeted Fixed Overheads

= $83,333 - 1,00,000 = ₹16,667$ (A)

Fixed Overhead Expenditure Variance = Budgeted Fixed Overhead – Actual Fixed overhead

= $1,00,000 - 98,000 = ₹2,000$ (F)

Fixed Overhead Volume Variance = Recovered Fixed Overheads – Budgeted Fixed Overheads

= $90,000 - 1,00,000 = ₹10,000$ (A)

Fixed Overhead Cost Variance = Recovered Fixed Overheads – Actual Fixed Overheads

= $90,000 - 98,000 = ₹8,000$ (A)

Sales Variances:

Sales Value variance = Actual Sales – Standard Sales

= $9,50,000 - (2,000 \times 550) = ₹1,50,000$ (A)

Sales Price Variance = (Actual Price – Std. Price) $\times$ Actual Quantity

= $9,50,000 - (550 \times 1,800) = 40,000$ (A)

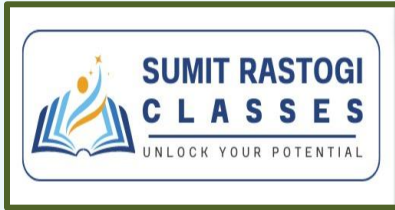
Sales Volume Variance = (Actual Quantity – Std. Quantity) $\times$ Std. Price

= $(1,800 - 2,000) \times 550 = ₹1,10,000$ (A)

(ii) Reconciliation of Actual Profit with Standard Profit:

Budgeted Profit (2,000 units):

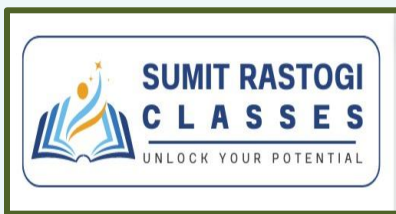
Sales ($550 \times 2,000$)	11,00,000
Variable Cost ($460 \times 2,000$)	(9,20,000)
Fixed Cost	(1,00,000)
Profit	80,000



To buy classes visit our website
sumitrastogiclasses.com
and for further queries contact us on
8826965733, 9811229279, 9560978857

Reconciliation Statement

Particulars	Amount (₹)
Standard Profit = $80,000 \times 1,800/2,000$	72,000
Variances:	
Material Variances:	
Price Variance	(2,000)
Usage Variance	10,000
Labour Variances:	
Rate Variance	(20,000)
Efficiency Variance	32,000
Variable Overhead Variances:	
Expenditure	(20,000)
Efficiency	16,000
Fixed Overhead Variances:	
Expenditure Variance	2,000
Capacity Variance	(16,667)
Efficiency Variance	6,667
Sales Variances:	
Price Variance	(40,000)
Actual Profit	40,000

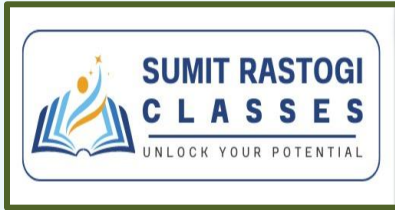


To buy classes visit our website
sumitrastogiclasses.com
and for further queries contact us on
8826965733, 9811229279, 9560978857

ANS. 7 (a)

Difference between Cost Reduction and Cost Control:

Particulars	Cost Reduction	Cost Control
1. Permanence	Permanent, Real and reflects genuine savings in cost.	Represents efforts made towards achievement of pre-determined target or goal.
2. Nature of Function	It is a corrective function. It can operate along with an efficient cost control system. This concept believes that there is always a scope for further reduction in costs.	It is a preventive function, where costs are optimized before, these are incurred.
3. Nature of process	It presumes the existence of concerned potential savings in norms or standards and therefore it is a corrective process.	It does not focus on costs independent of revenue nor consider product attributes as given. It is a wholistic control process.
4. Performance evaluation	It is not concerned with maintenance of performance according to standards.	The process involves setting up a target, investigating variances and taking remedial measures to correct them.
5. Nature of Standards	Continuous process of critical examination includes analysis and challenge of standards. It assumes the existence of potential savings in the standards and aims at improving them by bringing out more savings.	It accepts the standards, once they have been fixed. In other words, standards shall remain, as it is.
6. Dynamism	Fully dynamic approach.	It is a routine exercise and lacks dynamic approach.
7. Coverage	Universally applicable to all areas of business. Does not depend upon standards, though target amounts may be set.	Limited applicability to those items of cost for which standards can be set.
8. Basic approach	It is not concerned with maintenance of performance according to standards. It challenges the very standards set.	It involves setting up a target, ascertaining the actual performance and doing the variance analysis, followed by remedial actions.



To buy classes visit our website
sumitrastogiclasses.com
and for further queries contact us on
8826965733, 9811229279, 9560978857

ANS. 7 (b)

(i) Standard Product Cost Sheet:

Particulars		Amount (₹)	Working	Cost per unit (₹)
Actual Direct Material Cost	29,000			
Less: Material Price Variance	(70)			
Less: Material Usage Variance	(130)	28,800	28,800/4,800	6
Actual Direct Labour Cost	45,000			
Add: Labour rate Variance	450			
Less: Labour efficiency Variance	(2,250)	43,200	43,200/4,800	9
Actual Variable Overhead Cost	72,500			
Add: VOH Expenditure Variance	3,000			
Less: VOH Efficiency Variance	(3,500)	72,000	72,000/4,800	15
Actual Fixed Overhead Cost	40,000			
Less: FOH Expenditure Variance	(2,500)	37,500	37,500/5,000	7.5
Total				37.5

Note: For Fixed OH only Expenditure Variance is given, hence the amount of ₹37,500 is budgeted OH which is for 5,000 units.

(ii) (a) Recovered Fixed Overheads = Standard Fixed Overhead rate per unit × Standard units
for actual production

$$= 7.5 \times 4,800 = ₹36,000$$

Fixed Overhead Volume Variance = Recovered Fixed Overheads – Budgeted Fixed Overheads
 $= 36,000 - 37,500 = ₹1,500 \text{ (A)}$

(b) Sales Price Variance = (Actual Price – Std. Price) × Actual Quantity

$$7,500 = 2,23,500 - (SP \times 4,800)$$

$$SP \times 4,800 = 2,16,000$$

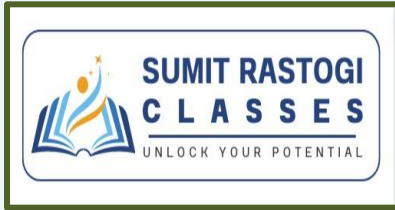
$$SP = ₹45$$

Sales Volume Variance = (Actual Quantity – Std. Quantity) × Std. Price

$$= (4,800 - 5,000) \times 45 = ₹9,000 \text{ (A)}$$

(c) Standard profit for the year = (SP – Standard Cost) × Actual Units

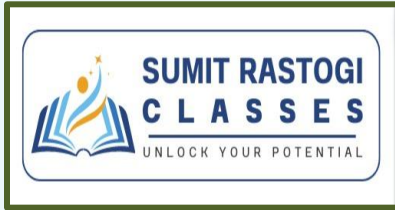
$$= (45 - 37.50) \times 4,800 = ₹36,000$$



To buy classes visit our website
sumitrastogiclasses.com
and for further queries contact us on
8826965733, 9811229279, 9560978857

(iii) Statement Showing Reconciliation of the Standard Profit and the Actual Profit:

Particulars		Amount (₹)
Standard Profit		36,000
Add: Sales Price Variance (Favourable)		7,500
		43,500
Add: Favourable Cost Variances:		
Wages Rate Variance	450	
Variable Overhead Expenses	3,000	3,450
Less: Adverse Cost Variances		46,950
Material Price	70	
Material Usage	130	
Labour Efficiency	2,250	
Variable Overhead Efficiency	3,500	
Fixed Overhead Expense	2,500	(8,450)
		38,500
Less: Fixed Overhead Volume Variance (Adverse)		(1,500)
Actual Profit		37,000



To buy classes visit our website
sumitrastogiclasses.com
and for further queries contact us on
8826965733, 9811229279, 9560978857

ANS. 8 (a)

(i) Statement Showing calculation of Indirect Costs rate per unit of cost driver:

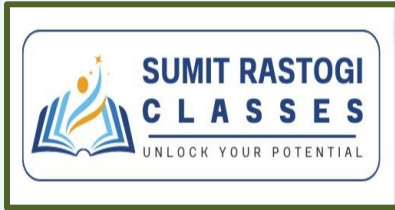
Total Overheads	₹	Drivers	No.	Cost per unit of Driver	
Accounts preparation and advice	7,20,000	Hours spent on Accounts & Advice	18,000	7,20,000/18,000	40
Requesting missing information	50,000	No. of Requests	250	50,000/250	200
Issuing fee payment reminders	30,000	No. of reminders sent	400	30,000/400	75
Holding client meetings	60,000	No. of client meetings held	250	60,000/250	240
Travelling to clients	40,000	Kms. travelled	10,000	40,000/10,000	4
Total Cost	9,00,000				

(ii) Statement of Total Cost under ABC Method for A, B, and C:

	Clients		
	A	B	C
Accounts preparation and advice @₹40 per Hour	40,000	10,000	13,600
Requesting missing information @₹200 per Request	800	2,000	1,200
Issuing fee payment reminders @₹75 per reminder	150	600	750
Holding client meetings @₹240 per meeting	960	240	480
Travelling to clients @₹4 per Km travelled	600	2,400	0
Total Cost (₹)	42,510	15,240	16,030

(iii) Calculation of Client Fees under original and ABC Method:

	Clients		
	A	B	C
Cost under original Method @₹50 per hour (9,00,000/18,000)	50,000	12,500	17,000
Add: Profit 20%	10,000	2,500	3,400
Client Fees under Original Method	60,000	15,000	20,400
Cost Under ABC Method	42,510	15,240	16,030
Add: Profit 20%	8,502	3,040	3,206
Client Fees under ABC Method	51,012	18,288	19,236



To buy classes visit our website
sumitrastogiclasses.com
and for further queries contact us on
8826965733, 9811229279, 9560978857

- (iv) Statement of the effect on fees charged to each of these three clients for changing to the new costing system:

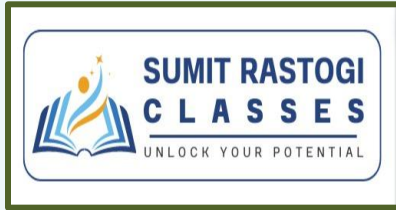
	Clients		
	A	B	C
Client Fees under ABC Method	51,012	18,288	19,236
Client Fees under Original Method	60,000	15,000	20,400
Increase/(Decrease)	(8,988)	3,288	(1,164)

ANS. 8 (b)

BPR is a business process management strategy, originally pioneered in the early 1990s. Focus on the analysis and design of workflows and process within an organisation. BPR is also known as Business Process Redesign, Business Transformation, or the Business Process Change Management. BPR aimed to help organizations fundamentally rethink how they do their work in order to dramatically improve customer service, cut operational costs, and become world-class competitors. Competition is continuously increasing with respect to price, quality and selection, service and promptness of delivery. Removal of barriers, international cooperation, technological innovations cause competition to intensify. All these changes impose the need for organizational transformation, whether the entire processes, organization climate and organization structure are changed.

BPR application ways:

- (i) Empowering people i.e., ability to do their work: the right information, the right tools, the right training, the right environment, and the authority they have.
- (ii) Providing information in many different ways.
- (iii) Providing right tools - with the right tools, the numerical parts of the plans arrive in a consistent, electronic format permitting consolidation by a computer. This leaves the analyst free to do the more productive work of analysing the quality of the plan.
- (iv) Providing efficient training.
- (v) Eliminating unproductive uses of time.
- (vi) By improving data processing eliminate unnecessary papers.
- (vii) Eliminating unnecessary variations in the procedures and systems.
- (viii) Minimising the burden of record keeping. It means more efficient and effective with the six components of data processing like computing, transmitting, storing, retrieving, manipulating, and displaying data.



To buy classes visit our website
sumitrastogiclasses.com
and for further queries contact us on
8826965733, 9811229279, 9560978857

Characteristics of Re-engineering Process:

- (i)** Several jobs are combined into one.
- (ii)** Often workers make decisions.
- (iii)** The steps in the process are performed in a logical order.
- (iv)** Work is performed, where it makes most sense.
- (v)** Quality is built in.
- (vi)** Manager provides a single point of contact.
- (vii)** Centralized and decentralized operations are combined.