CA Final - SCM&PE
December 2021 - Suggested Answers

Question No. 1 is compulsory.

Candidates are also required to answer any **four** questions from the remaining **five** questions.

Working notes should form part of the answer.

No statistical or other table will be provided with this question paper.

Question 1 : **[20 Marks - Case Study]**

Reference : Chapter 4 - Cost Management Techniques

Topic : Environmental Management Accounting (EMA)

ABC Metals Limited, a pioneer in pure Lead metal and alloys commenced its operations in the year 2005 in 50 acres of land. The Lead smelting involves a series of steps that lead to the extraction of pure Lead from its ore. Smelting is carried out in a blast, reverberatory, and rotary kiln furnaces. Blast furnaces produce hard or antimonial Lead containing about 10 percent antimony. The industry generates wastes in the form of toxic wastewater, solid waste, as well as volatile compounds like sulfur dioxide that are released into the air.

The plant since its inception is doing well commercially, but has long been opposed by environmentalist on the contention that it is polluting the environment and causing health problems. The plant has been subjected to several demands of closure on the grounds of violating environmental norms. The environmental activists recently came down heavily in print and electronic media, alleging that the promoters of ABC Metals Ltd. are violators of numerous regulations. They allege that the commercial considerations of the management are completely replacing the cause of social responsibility.

The promoters of ABC Metals Ltd. hail from a business family having a good reputation. With the happenings at the Lead smelter, the family decided to give a fair thought and to develop a constructive approach to draw a reasonable conclusion. They want to put all the allegations, counter allegations and consequential litigations to rest by revamping the practices and by adopting all necessary precautions. The Chairman of ABC Metals Ltd. believes in the principle that "for discharging any social or ethical responsibility, the commercial viability also is one of the pre-requisite". They approached "XYZ Consulting Group", having an international reputation, to strike a meaningful solution to this complex situation.

The Chairman of ABC Metals Ltd., got very much impressed by the following initial remarks of the Chief Consultant of 'XYZ Consulting Group', in the first meeting itself and decided to engage their services.

"Economic growth of a Nation as well as organization's financial growth is driven by many factors such as technological advancement, saving and investment rates, government policies and in turn it is resulting in reduction in Natural Resources, Pollution, Climate Change, Global Warning, Industrial and Household Waste, Ozone Layer Depletion etc. This requires special attention and therefore preservation of natural resources and environmental awareness has initiated a novel branch of accounting known as Environmental Accounting or Green Accounting which seems to be lacking in major areas of your organization. In an increasingly global economy, effective management of environmental cost and performance may become a source of competitive advantage."

ABC Metals Ltd. documented terms with 'XYZ Consulting Group' to initiate Green Accounting aspects. 'XYZ Consulting Group' deployed a team of consultant with a right blend of juniors and seniors to carry out the analysis on environmental cost of ABC Metals Ltd. by dividing them in first place into four sections viz. :

(1) Conventional Costs; (2) Hidden Costs;

(3) Contingent Costs; (4) Relationship Costs.

Which are further sub-divided into Internal Costs and External Costs.

After discussions and thorough analysis, the working team in its final report identified and suggested many areas for control and out of which four areas of Environmental Cost control are more crucial viz. :

(1) Waste, (2) Water Consumption, (3) Energy and (4) Consumables and Raw materials.

Based on the above stated scenario you are required to :

(a) ANALYZE the views expressed by the Chief Consultant in the initial remarks. **(2 Marks)**

(b) LIST the major areas which are likely to be suggested by 'XYZ Consulting Group' where Environmental Management Accounting (EMA) can be applied for ABC Metals Limited. **(2 Marks)**

(c) DISCUSS briefly all the six forms of environmental costs classified by the working team for ABC Metals Limited. **(6 Marks)**

(d) DESCRIBE what is meant by identification of Environmental costs. **(2 Marks)**

(e) ANALYSE two Environmental Management Accounting Techniques : Input-Output Analysis and Flow Cost Accounting with their relevance in the context of manufacturing process of ABC Metals Limited. **(3 Marks)**

(f) EVALUATE the steps that could be suggested in the final report by 'XYZ Consulting Group' in the four areas of Environmental cost control referred by the working team. **(5 Marks)**

Answer 1 :

(a) <u>Analysis</u> of views expressed by the Chief Consultant of XYZ Consulting Group

The view expressed by the Chief Consultant of the XYZ Group appears to be reasonable based on the core aspects of the Environmental Management Accounting.

Environment Management Accounting (EMA) is the process of collection and analysis of the information relating to environmental cost for internal decision making. EMA identifies and estimates the costs of environment-related activities and seeks to control these costs. The focus of EMA is not only on financial costs, but it also considers the environmental cost or benefit of any decisions made. EMA is an attempt to integrate the best management accounting thinking with the best environmental management practice.

ABC Metals Ltd seems to have no adequate documented measures with respect to environmental costs and consequences. If does so it could not have been trapped in the ambit of allegations and counter allegations by the public at large. This is more true with ABC Metals Ltd. in particular where the management has been positively characterized on ethical considerations. EMA disseminates what is done and what is to be done with respect to the current problems that the company is facing.

As pointed out by the Chief Consultant of XYZ Group, effective management of environmental costs and performance may become the source of competitive advantage of ABC Metals Ltd.

(b) List of major areas where Environment Management Accounting (EMA) can be applied to ABC Metals Ltd.

XYZ Consulting Group may suggest the following areas where Environment Management Accounting (EMA) may be applied:

- Product Pricing
- Budgeting
- Investment Appraisal

- Calculating Environmental Costs
- Saving of Environmental Costs
- Setting Performance Targets
- External Reporting – Disclosure of Environmental Expenditures, Investments and Liabilities.

(c) Discussion on forms of Environmental Costs :

- Conventional Costs : Raw material and energy costs having environmental relevance.

  The lead smelter uses natural resources like ores from which lead is extracted. Blast, reverberatory and rotary kiln furnaces require significant energy resources to operate. ABC Metals Ltd. will need to understand, using the raw materials obtained from nature in the most productive way to get the highest possible yield. Energy utilization has to be monitored possibly through energy audits to make sure energy efficient equipment is used in the production process, wastage of energy is limited.
- Hidden Costs : Costs which have been accounted for but then lost their identity in "general overheads". Costs such as freight and transport, storage, utilities, water consumption etc. are hidden in the overhead costs. ABC Metals Ltd. has to identify these costs that by nature affect the environment albeit indirectly. Optimum utilization of space, utilities, transportation facilities would help the company reduce such costs.
- Contingent Costs : Costs that have to be incurred on a future date for example clean – up costs. Environmentalists have accused ABC Metals Ltd. of violating numerous regulations. There is a potential threat of fines, penalties with the spectre of closure of business looming ahead in the future. These would be contingent costs that the company has to consider. The threat of such contingent costs can be reduced by addressing the ways in which its operations are allegedly polluting the environment and causing health problems.
- Relationship Costs : Intangible costs, for example the costs of preparing environment reports. Identification of environmentally relevant costs requires a system to be put in place to trace such costs. It involves in time and effort of personnel at various levels within the organization, hiring experts and dealing with government departments for getting appropriate permits. The system developed has to be maintained and monitored continuously. Reports for the management have to be generated for further perusal and action. This requires resource commitment from ABC Metals Ltd. in the form of money, equipment and personnel. The company has to consider the cost benefit analysis while developing this system. While the promoters have the intention of constructively addressing this problem, the system in place should be feasible to operate and financially viable.
- Internal Costs : Costs that have a direct impact on the income statement like waste disposal costs, maintain systems to avoid penalties / fines for non-compliance of environment standards. For ABC Metals Ltd. costs of recycling waste, health care costs to employees working in hazardous conditions, penalties paid to environment agencies etc. can be considered as internal costs. These costs have a direct financial impact on its income.
- External Costs : Costs imposed on the society at large but not borne by the company that generates the costs in first instance. Costs of disposing toxic wastewater, solid wastes and harmful gases into the environment can be considered external costs. The impact of these actions has affected the society due to pollution of air, soil and water. It has also impacted the health of the people living there. The company should try to eliminate this cost entirely by putting in place clean up systems that can safely dispose these wastes, water and gases.

(d) Identification of Environmental Costs :

To prepare environmental management accounts an intense review of the general ledger containing costs of materials, utilities, waste disposal etc. is required. Many of the environment costs are "hidden" in "general overheads" of the company. It becomes difficult for the management to identify opportunities to cut the environment costs but nonetheless it is crucial for them to do so to preserve the natural resources getting scarcer.

Allocation of environmental costs to the processes or products which give rise to them is equally important for organization in making well informed business decisions.

(e) Analysis of Environment Management Accounting Techniques :

- **Input-Output Analysis :** This technique records material inflows and balances this with the outflows on the basis that what comes in, must go out. For example, ABC Metals Ltd. can analyse the lead smelting process that leads to extraction of pure lead. The input output ratio at the blast furnace can be looked into as part of this analysis to find out wastes and inefficiencies. Workflow can then be modified to reduce wastage. By accounting for outputs both in terms of physical quantities and in monetary terms ABC Metals Ltd. can manage environmental costs better.
- **Flow Cost Accounting :** This technique uses not only material flows but also the organizational structure. Material flows are recorded as well as material losses incurred at various stages of production. Flow cost accounting makes material flows transparent by using various data, which are quantities (physical data), costs (monetary data) and values (quantities x costs). The material flows are divided into three categories –
  - **Material Values and Costs :** for the purposes of calculating the material values and costs, ABC Metal Ltd. needs detailed knowledge of the physical quantities of materials involved in the various flows and inventories. Based on these flow quantities and inventories, ABC Metals Ltd. can proceed to make valuations in terms of prices and thus obtain the material values of these flows and inventories. Material costs then be determined by defining which material flows are cost relevant.
  - **System :** In-house costs incurred for maintaining material flow, for example personnel costs or depreciation. ABC Metals Ltd. can analyse storage of raw materials, intermediary and final products and the costs involved in maintaining them. Just in Time material procurement, production based on confirmed orders can be considered to minimize storage costs.
  - **Delivery and Disposal :** Costs of material flows leaving the company, transport costs or cost of disposing waste. ABC Metals Ltd. can identify ways to optimize delivery and transport costs of its finished goods by decreasing the distance covered to transport goods, optimizing the truck load to deliver more using same delivery resources.

(f) Evaluation of the suggestions in final report of XYZ Consulting Group in the four areas of Environmental Cost Control :

The four areas of environmental cost control suggested by the consulting team are waste, water management, energy and consumables and raw materials.

Waste : ABC Metals Ltd. generates solid waste and harmful gases that pollute the air. They should monitor waste from operations in order to minimize impact on people and the environment. "Mass Balance" method can be used to determine how much material is wasted in production. The weight of material bought compared with the product yield can be understood. Reduction in waste saves costs. Waste generated should either be treated within the premises or disposed in environmentally safe method.

Water management : The production process of ABC Metals Ltd. generates toxic wastewater. Usage of water should be monitored so that consumption is reduced to an optimum level. Businesses pay for water twice – once to buy it and second to dispose it. The toxic wastewater may either be treated within the plant with technology that can possibly make the water reusable. Else it should be disposed in an environmentally safe method.

Energy : Environment management accounts may help in identifying inefficiencies and wasteful practices. These opportunities can yield cost savings. Using green energy like solar and wind energy, energy efficient machines, performing energy audits, avoiding idling of machines can help save energy costs.

Consumables and Raw Materials : These costs are direct costs that can be traced and monitored. Management has to review the entire lead smelting process to identify areas where materials can be used optimally, waste can be reduced. Yield from extraction of lead from its ore should be highest with minimum wastage. The wasta generated can be considered for recycling that helps in creating a sustainable environment.

Overall, EMA focuses on things such as the cost of energy and water and the disposal of waste and effluent. It is vital to note at this point that the focus of EMA is not all on purely financial costs. It includes consideration of matters such as the effect on the public image of the company from failure to comply with environmental regulations etc. must be taken into consideration.

- Conceptually correct **brief explanation** is sufficient for each step.
- **Alternate** points and reasoning are also possible.

Question 2 : [20 Marks - Practical + Theory Question]

Reference : Chapter 2 - Modern Business Environment

Topic : Customer Lifetime Value (CLV)

SUNEET Automotives Limited (SAL) is engaged in the production and sale of premium segment bikes under the brand "Sunstar". It also manufactures related auto components including spare parts. The company operates a state of the art service network covering all parts of the country to take care of the after sale service and maintenance of bikes.

Based on the buying preferences and culture, the company categorizes its loyal customers into two categories : Good and Excellent.

Relevant details pertaining to sales are :

Category	**Periodicity of buying**	**Selling Price per bike**	**Service / Maintenance Charges**
Good	1 Bike for every 5 years	₹ 5,00,000	₹ 1,00,000 per bike
Excellent	7 Bikes as a whole from the date of his first buying	₹ 6,00,000	₹ 1,20,000 per year for all bikes

Profit Margin :

Particulars	Good	Excellent
On Sale of each Bike	25%	25%
On Service/Maintenance Charges	60%	65%

Age analysis of customers undertaken by SAL reveals a general statistical estimate that, a person may become the first customer by buying a bike when he attains 20 years of age and remains riding the bikes until he reaches the age of 40 years and 3 months.

It is further observed that the "Good" category customers would not prefer waiting to purchase the bike beyond 5 years.

Required :

(a) (i) CALCULATE the lifetime value of a 'Good Customer' who is 20 years of age. **(2 Marks)**

(ii) CALCULATE the lifetime value of an "Excellent customer" who is 25 years of age. **(2 Marks)**

(iii) Sunayana, holding an international management degree and the daughter of the Managing Director who has taken up the position of an Executive Director recently, came up with an idea of engaging a National Cricketing Icon to promote the bike. This brand endorsement should cost the company ₹ 10 Crores over a period of time. Sunayana, a conservative analyst by her nature, perceives that this brand endorsement is likely to turn 500 customers who attain 30 years of age, and who are bound to be otherwise "Good" customers into "Excellent" customers.

ADVISE the management whether the brand endorsement programme is worth ₹ 10 Crores? **(4 Marks)**

Notes :

(1) Ignore the Net Present Value of money and Tax implications.

(2) Assume that the service/maintenance charges would be incurred on the last day of the year.

(3) Show calculations in support of your answer.

(b) The purpose of a business is to create and keep a customer, and Customer Lifetime Value (CLV) is a prediction of "the net profit attributed to the future relationship with a customer".

In the light of this statement, RECOMMEND the steps to ascertain CLV of a particular customer. **(4 Marks)**

(c) The whole concept of 'Customer Lifetime Value' revolves around four terms.

(1) Customer Selection;

(2) Customer Acquisition;

(3) Customer Retention and

(4) Customer Extension.

Briefly EXPLAIN these terms. **(4 Marks)**

(d) Consider the different scenarios listed below, CATEGORIZE them to the most appropriate term of CLV as mentioned in sub-question (c) above. (You are required to mention the appropriate term only and don't need to explain).

(i) A company producing environmentally friendly products, sending e-mails to its customers to tell them how much less carbon dioxide they have produced by using the company product.

(ii) The Marketing Manager of a large MNC says that "the service, product and experience personalization are paramount now-a-days if you want customers to be happy and spend more on your business in the long run".

(iii) A Telecom company developed and added a Movie App that could attract its customer towards premium plan service from the basic plan.

(iv) A business looking to buy a website domain, would as a natural choice, likely be interested in web hosting and privacy protection services too.

(v) A company is keeping small list of popular products on the side bar of the web page. This allows its customers to see the most popular products when they are browsing the website.

(vi) The Marketing Manager cautions his team "don't overwhelm potential customers with too many choices. Otherwise, you run the risk of customers abandoning the cart".

(vii) SG Analytics team aggregated the customer and transaction data for the last 7-10 years of its rival company, SG Analytics then ranked all the customers based upon a weighted score calculated using 10 different metrics.

(viii) Mr. Charan, a Ph.D., aspirant and doing dissertation on the role of advertising says that - "To be successful in the twenty-first century, advertising must find creative ways to transform customers into life-long purchasers and diehard advocates. The lifetime value of a loyal customer far exceeds any short-term buzz generated by a one-time promotion gimmick". **(0.5 x 8 = 4 Marks)**

Answer 2 :

Student Note : To solve this question, we need to make certain assumptions, then only the ICAI view will match with the answer given below. These assumptions are :

1. A 'Good' category customer will pay service / maintenance charge of ₹ 1,00,000 per bike for the entire duration of bike used i.e. say for 5 years.
2. An 'Excellent' category customer will buy total 7 bikes during his lifetime, irrespective of the fact when and at what age he purchases his first bike.

(a) Customer Lifetime Value :

(i) Lifetime Value of "Good Customer" aged 20 years.

A customer aged 20 years will buy his first bike at the age of 20. Then he will buy successive bikes at the age of 25, 30, 35 and 40. In short, he will buy total 5 bikes during his lifetime.

Profit margin from the sale of 1 bike = 25% of ₹ 5,00,000 = ₹ 1,25,000 per bike.

Profit margin from service / maintenance charges of 1 bike = 60% of ₹ 1,00,000 = ₹ 60,000 per bike.

Total profit margin from sale of 1 bike = ₹ 1,25,000 + ₹ 60,000 = ₹ 1,85,000 per bike.

Total profit from sale of 5 bikes = ₹ 1,85,000 x 5 = ₹ 9,25,000.

Therefore, the lifetime value of "good customer" aged 20 years is **₹ 9,25,000.**

(ii) Lifetime Value of "Excellent Customer" aged 25 years :

Particulars	Calculations	Lifetime value
Profit Margin on Sale of bike	6,00,000 x 25% x 7 bikes	₹ 10,50,000
Profit on Maintenance of bike	1,20,000 x 65% x *15 years	₹ 11,70,000
∴ Total lifetime value		**₹ 22,20,000**
* Bike will be used for a period of (40 years - 25 years) = 15 years		

(iii) Brand endorsement decision involving outlay of ₹ 10 crore :

A "good customer" aged 30 years would otherwise buy 3 more bikes (at age 30, at age 35, and at age 40 years). However, after converting into an "Excellent" customer, he would still buy 7 more bikes.

Note : In my personal opinion, this is illogical. However, ICAI has solved this question assuming an "Excellent" customer would always buy 7 bikes, irrespective of the age at which he buys his first bike. Based on this assumption, the following calculations are done:

Particulars	Good Customer	Excellent Customer
Profit on Sale of Bike	5,00,000 x 25% x 3 bikes = 3,75,000	6,00,000 x 25% x 7 bikes = 10,50,000
Profit on Servicing of Bike * (40 - 30 years age)	1,00,000 x 60% x 3 bikes = 1,80,000	1,20,000 x 65% x *10 years = 7,80,000
Total Profit	₹ 5,55,000	₹ 18,30,000
Incremental Benefit (18,30,000 - 5,55,000)		₹ 12,75,000
Total Incremental Benefit due to Brand Building (500 customers x ₹ 12,75,000)		₹ 63,75,00,000
Less : Payment for Brand Endorsement		₹ 10,00,00,000
∴ **Net Incremental Benefit**		**₹ 53,75,00,000**

Advise : The management can consider the brand endorsement program as it yields an incremental profit of ₹ 53.75 crores.

Note : The above answers will differ based on different assumptions made about the period of service / maintenance or the number of bikes sold.

(b) Steps to ascertain the customer lifetime value of a particular customer :

Customer lifetime value is the present value of net profit that a firm is expected to derive from a customer over the entire lifetime of relationship with that particular customer. It is the net present value of the projected future cash inflows from lifetime of customer relationship. It is an essential tool used in marketing to focus on more profitable customers and stop servicing non-profitable customers.

First of all, a firm needs to ascertain the profits to be generated from each customer. Activity Based Costing (ABC) model helps in associating direct costs and revenues to a particular customer over a period of time to ascertain the profit margin from that particular customer. To ascertain lifetime value, judgements with regards to duration of relationships have to be made. These require detailed analysis of the strengths of relationships, the likelihood, frequency and amount of repeated or additional sales, competitive products, customer loyalty etc. Thus, profit margins are then discounted at the firm's cost of capital or any other suitable rate as determined by the organization to arrive at the customer lifetime value.

(c) Explanation of concepts in customer lifetime value –

- **Customer Selection :** Type of customer which the company needs to target for its customer base. Determine the type of customers needed, their value and how can the company reach out to them? It is the selection of market segment.
- **Customer Acquisition :** A relationship needs to be developed with new customers. This can be done through offline techniques like advertising, direct mailers etc. Online techniques would be to use search engine marketing, online PR, online partnerships, interactive advertisement, opt-in-mails, viral marketing etc.
- **Customer Retention :** Keeping existing customers. The company needs to understand customer needs to cater to their satisfaction. Reliability and responsiveness of service, assurance and empathy are attributes that help retaining customers.

- **Customer Extension :** It is selling new products to the existing customers. This could be reselling similar products or improved products to the previous customers. Cross selling closely related products or up-sell more expensive products.

(d) Categorisation to the most appropriate term of CLV :

(i) Customer retention (assurance to environment conscious customers)

(ii) Customer retention (service and product personalization)

(iii) Customer extension (up selling a more expensive plan)

(iv) Customer extension (cross selling closely related products)

(v) Customer acquisition (using website to reach out to customers)

(vi) Customer selection (whom to target and determining how to reach out to them)

(vii) Customer selection (type of customer of rival company analysed to find out whom to target).

(viii) Customer retention (keeping existing customers and converting them to lifelong purchasers).

Note : The above answers may differ from student to student. You need a little luck to match all the answers with ICAI answers.

Question 3 : [20 Marks - Practical + Theory Question]

Reference : Chapter 9 - Divisional Transfer Pricing

Topic : International Transfer Pricing

ABC Ltd. harvests, processes and roasts cocoa beans. The company has two divisions :

Division A is located in Country X. It harvests and processes cocoa beans. The processed cocoa beans are sold to Division B and external customers.

Division B is located in Country Y. It roasts processed cocoa beans and then sells them to external customers.

Both the countries X and Y use the same currency but have different Tax rates.

The budgeted information for the next year is as follows :

Division A

Capacity	2,000 tonnes
External demand for processed cocoa beans	1,600 tonnes
Demand from Division B for processed cocoa beans	1,250 tonnes
External market selling prices for processed cocoa beans	₹ 22,000 per tonne
Variable costs	₹ 14,000 per tonne
Annual fixed costs	₹ 60,00,000

Division B

Sales of roasted cocoa beans	1,000 tonnes
Market selling price for roasted cocoa beans	₹ 40,000 per tonne

The production of one tonne of roasted cocoa beans requires an input of 1.25 tonnes of processed cocoa beans. The cost of roasting is ₹ 4,000 per tonne of input plus annual fixed costs of ₹ 40,00,000.

Transfer Pricing Policy of ABC Ltd. :

Division A must satisfy the demand from Division B for processed cocoa beans before selling any quantity to external customers. The transfer for the processed cocoa beans is variable cost plus 10% per tonne.

Taxation : The rate of taxation on company profits is 45% in country X and 25% in country Y.

Required :

(a) (i) PREPARE statements that shows the budgeted profit after tax for the next year for each of the two divisions. Your profit statements should show sales and costs split into external sales and internal transfers wherever appropriate. **(5 Marks)**

(ii) DISCUSS the expected tax consequences of ABC's current transfer pricing policy. **(4 Marks)**

(b) PREPARE statements that show the budgeted contribution that would be earned by each of the two divisions if ABC's head office changed its policy to state that transfers must be made at opportunity cost. Your statements should show sales and costs split into external sales and internal transfers wherever appropriate. **(4 Marks)**

(c) DISCUSS TWO behavioural issues that could arise as a result of the head office of ABC Ltd. imposing transfer prices instead of allowing the divisional managers to set the prices. **(4 Marks)**

(d) EVALUATE how taxation, import duty and dividend play role while determining International Transfer Pricing? **(3 Marks)**

Answer 3 :

(a)(i) Key Data for Calculation :

Division B will need an input of 1,250 tons (1,000 x 1.25) of processed cocoa beans from Division A.

Division A will have to first satisfy the internal demand of 1,250 tons of Division B, as per the present policy. It means, Division A can externally sell only 750 tons (2,000 - 1,250) of processed cocoa beans @ ₹ 22,000 per ton.

The internal transfer price from A to B is = ₹ 14,000 + 10% = ₹ 15,400 per ton.

Statement Showing Budgeted Profit After Tax for Division A (Country X) :

Particulars	**(₹)**
Contribution on Internal Transfer to B [1,250 tons x (15,400 - 14,000)]	17,50,000
Contribution on External Demand [750 tons x (22,000 - 14,000)]	60,00,000
∴ Total Contribution	77,50,000
Less : Annual Fixed Costs	60,00,000
∴ Profit Before Tax	17,50,000
Less : Tax @ 45%	7,87,500
∴ Profit After Tax	**9,62,500**

Statement Showing Budgeted Profit After Tax for Division B (Country Y) :

Particulars	**(₹)**
External Sales (1,000 tons x ₹ 40,000)	4,00,00,000
Less : Cost of input from Division A (1,250 tons x ₹ 15,400)	1,92,50,000
Less : Variable Processing Cost (1,250 tons x ₹ 4,000)	50,00,000
∴ Contribution	1,57,50,000
Less : Annual Fixed Costs	40,00,000
∴ Profit before tax	1,17,50,000
Less : Tax @ 25%	29,37,500
∴ Profit After Tax	**88,12,500**

(a)(ii) Discussion of tax consequences of Current Transfer Pricing Policy :

The inter-company transfer price for processed cocoa beans is ₹ 15,400 per ton. This price is significantly below the external market price for processed cocoa beans of ₹ 22,000 per ton. The difference of ₹ 6,600 per ton (22,000 - 15,400) for 1,250 tons will lead to reduction in profit of Division A by ₹ 82,50,000 and increase in profit of Division B by the same amount. It results into a net tax savings to ABC Ltd. as follows :

Difference in Tax Rates of the two countries = 45% - 25% = 20%

Net savings in tax = ₹ 82,50,000 x 20% = ₹ 16,50,000

This will be of particular interest to tax authorities, as ABC Ltd. is moving ₹ 82,50,000 of taxable profit from country X (where a tax rate of 45% is in operation) to country Y (where a lower tax rate of 25% is in operation) by the use of their current transfer price for processed cocoa beans. Country X's tax authority would argue that the transfer price of ₹ 15,400 does not represent an arm's length transaction as it is below ₹ 22,000 per ton. The tax authorities in Country X may require that an arm's length transfer price be introduced to ensure that the tax is not avoided in that country.

(b) Calculation of Revised Budgeted Contribution after change in Transfer Price :

Key Data for Calculation :

Division B is having an external demand of 1,600 tons of processed cocoa beans. However, it is able to satisfy only 750 tons of external demand as per the present policy. It means, it is losing an opportunity to sale 850 tons (1,600 - 750) in the external market.

Division B earns a contribution of ₹ 8,000 per ton on external sales (i.e. 22,000 - 14,000). If we use opportunity cost method, then the internal transfer price shall be :

Transfer Price = Variable Cost + Opportunity Cost

= (1,250 tons x ₹ 14,000) + (850 tons x ₹ 8,000)

= ₹ 2,43,00,000

Statement Showing Revised Budgeted Contribution for Division A (Country X) :

Particulars	(₹)	(₹)
Internal Sale to Division B (as above)	2,43,00,000	
Less : Variable Cost (1,250 tons x ₹ 14,000)	1,75,00,000	68,00,000
External Sales (750 tons x ₹ 22,000)	1,65,00,000	
Less : Variable Cost (750 tons x ₹ 14,000)	1,05,00,000	60,00,000
∴ Total Contribution		1,28,00,000

Statement Showing Revised Budgeted Contribution for Division B (Country Y) :

Particulars	(₹)
External Sales (1,000 tons x ₹ 40,000)	4,00,00,000
Less : Cost of input from Division A (as above)	2,43,00,000
Less : Variable Processing Cost (1,250 tons x ₹ 4,000)	50,00,000
∴ Contribution	1,07,00,000

(c) Discussion on Behavioural Issues :

Two issues that could arise by the imposition of a transfer pricing policy on divisional managers are :

1. One of the purposes of decentralization is to allow manager to exercise greater autonomy. There is a little point in granting autonomy and then imposing transfer prices. Such imposition may make the managers feel that they are deemed to be incompetent and consequently undermine their confidence. The managers may not work to the best of their capability due to imposition of transfer price on them instead of allowing them to set their own transfer prices.
2. If the performance measure for the divisional managers is based on the profits of their respective divisions, then it is essential that the transfer pricing policy allows a freedom of performance to each division. Managers should be held responsible for what they can control. They should not be held responsible for profit or losses generated by an imposed transfer price. One way to overcome this problem is to use dual pricing.

(d) Role of Taxation, Import Duty and Dividend on International Transfer Pricing :

Taxation – The transfer price may conflict with the price which is used to determine profit for tax assessment. This conflict may arise when the supplying and receiving branches/subsidiaries are located in different countries with different tax rates. In such case profits may be manipulated by showing higher profits in the country with lower taxation rate and lower profits in the country having higher taxation rates.

Import duty – International transfer pricing will have an impact on import duties also. Import duties can be minimized by transferring products at lower prices to the branch/ subsidiary located in a country with high import duties. So, import duties may be lower on account of lower prices.

Dividend – Some countries restrict the repatriation of dividends. In such case the product should be transferred at higher prices to the branches/subsidiary located in country operating with these restrictions so that more profit can be booked without violating the dividend restrictions.

Question 4(a) : [5 Marks - Theory Question]

Reference : Chapter 3 - Lean System & Innovation

Topic : Kaizen Costing, BPR & Standard Costing

Bell Engineering, located in Yanam contemplating the introduction of cost reduction measures, is tilting towards introduction of Kaizen costing in the organization. As someone who is having an expert awareness on management accounting, you have been asked to suggest the management on this move. Some of your colleagues are questioning the management about the differences between the Standard Costing and Kaizen Costing and there is not much of the difference between Kaizen and Value Engineering, Business Process Re-engineering (BPR) as well.

You are required to :

DISCUSS any five differences between Standard costing and Kaizen costing as a reply to the colleagues.

Answer 4(a) :

The kaizen costing system is a quite different from a standard costing system in which the typical goal is to meet the cost standard while avoiding adverse variances.

In kaizen costing, the goal is to attain cost reduction targets that are continually altered/modified downward. Variance analysis under a standard cost system generally compares actual to standard costs. In the kaizen costing system, variance analysis compares the target costs with actual cost reduction amounts.

Kaizen costing may be more helpful for performance measurement than traditional standard costing in a firm that has to compete internationally. This is because when competition is intense, firms need to improve all the time to succeed and stay competitive.

Small improvements may require changes in ways of operating so that standard procedure have to be modified. Whereas Standard costing concentrates on existing procedures, Kaizen costing identifies that improvement may need changes in procedures and that methods of operating should not become rigid.

Another key argument between standard and kaizen costing has to do with the assumptions about who has the best understanding to improve process and reduce costs. Traditional standard costing assumes that managers understand best since they have the technical knowledge and can determine processes that workers are required to perform according to present standards and procedures. Under Kaizen Costing, workers are assumed to have superior knowledge about how to improve processes as they actually work with manufacturing process to produce products. Therefore, another central goal of kaizen costing is to give workers the responsibility to improve process and reduce costs.

Question 4(b) : [5 Marks - Practical Question with Theory option]

Reference : Chapter 6 - Decision Making

B Ltd. is considering expansion. Fixed costs amount to ₹ 4,20,000 and are expected to increase by ₹ 1,25,000 when plant expansion is completed. The present production capacity is 80,000 units per year. Capacity will increase by 50% with the expansion. Variable costs are currently ₹ 6.80 per unit and are expected to go down by ₹ 0.40 per unit with the expansion. The current selling price is ₹ 16 per unit and is expected to remain same under either alternative? RECOMMEND the better alternative with reason.

OR

Reference : Chapter 7 - Pricing Decision

ANALYSE any five factors contributing for a low customer's price sensitivity.

Answer 4(b) :

Computation of BEP & Profitability under two alternatives :

Particulars	At Present	After Expansion
(a) Capacity (in units)	80,000	1,20,000
(b) Selling price per unit	16.00	16.00
(c) Variable Cost per unit	6.50	6.40
(d) Contribution per unit [b - c]	9.20	9.60
(e) Total Contribution [a x d]	7,36,000	11,52,000
(f) Fixed Costs	4,20,000	5,45,000
(g) Profit [e - f]	3,16,000	6,07,000
(h) BEP (in units) [f / d]	45,652 (approx)	56,771 (approx)

Recommendation : It is obvious from the above calculations that the profit will be almost double after the expansion. Hence, the alternative of expansion is to be preferred.

OR

Analysis of Factors contributing for a low customer's price sensitivity :

- **Unique Value Effect** – More unique the product, lower is the price sensitivity.
- **Difficult Comparison Effect -** Price sensitivity will be low if the buyer has difficulty in comparing the two alternatives.
- **Total Expenditure Effect -** If the expenditure on the product represents a low proportion of the consumer income, the price sensitivity will be less visible for such a product.
- **End Benefit Effect** – Buyers are less price sensitive where the expenditure on the product is low compared to the total cost of the end product.
- **Shared Cost Effect -** If the cost of the product is shared by another party, the buyer will have less prone to price sensitivity.
- **Sunk Investment Effect -** Price sensitivity is low in products which are used along with assets previously bought.
- **Price Quality Effect -** Higher the perceived quality of the product, lower is the price sensitivity.
- **Inventory Effect -** If the product cannot be stored, the buyer will be less price sensitive.

Question 4(c) : [10 Marks - Practical + Theory]

Reference : Chapter 8 - Performance Measurement & Evaluation

Topic : Economic Value Added (EVA) & SVA

(i) Lifeline Limited provides you the following financial information as on 31st March, 2021.

	(₹ in Lakhs)
Share Capital	440
Reserves and Surplus	630
Long term Debt	60
Trade Payables	15

Additional information is as follows :

- Profit before interest and tax is ₹ 1,100 Lakhs
- Interest paid ₹ 6.8 Lakhs
- Tax rate is 30%
- Cost of equity 12% and Cost of debt 6%

You are required to CALCULATE Economic Value Added of Lifeline Ltd. **(4 Marks)**

(ii) Lifeline Limited now wants to use the technique of 'Shareholder Value Added' (SVA) for value measurement. DISCUSS briefly the concept of Shareholder Value Added (SVA) **(2 marks)**

(iii) Recommend the value drivers that affect shareholder value. **(4 Marks)**

Answer 4(c) :

(i) **EVA** = NOPAT – (WACC x Capital Employed)

Capital Employed = ₹ 440 L + ₹ 630 L + ₹ 60 L

= ₹ 1,130 L

$$\text{WACC} = \left[\frac{440 + 630}{1{,}130} \times 12\%\right] + \left[\frac{60}{1{,}130} \times 6\%\right] = 11.68\%$$

NOPAT = PBIT – Tax

= 1,100 L – 30% = ₹ 770 L

EVA = ₹ 770 L – (11.68% x 1,130 L) = **₹ 638.016 Lakhs**

Note : Cost of Debt 6% (given) is treated as net of tax. Alternatively, it may be assumed as before tax. In such case post tax cost of debt shall be = 6% x 0.7 = 4.2%.

(ii) **Concept of Shareholder Value Addition :**

Student Note : As per ICAI module (Nov. 2020), Shareholder Value Added (SVA) is deleted from the syllabus w.e.f. May 2021 exam and onwards. It is surprising to see a question on SVA after deleting it from syllabus and module.

SVA : Alfred Rappaport proposed a technique for value measurement. This approach is called Shareholder Value Addition. SVA focuses less on process than Porter's and acts more as a final gateway in decision making, although it can be used at multiple levels within a firm, SVA is described as –

The process of analyzing how decisions affect the net present value of cash to shareholders. The analysis measures a company's ability to earn more than its total cost of capital. Within business units, SVA measures the value the unit has created by analyzing cash flows over time. At the corporate level, SVA provides framework for evaluating options for improving shareholder value by determining the trade-offs between reinvesting in existing businesses, investing in new businesses and returning cash to shareholders.

(iii) Rappaport suggested that future cash flows should be discounted at a suitable cost of capital and that shareholder value would be increased if this measure were to increase. According to Rappaport, the following seven factors – he calls them "value drivers" affect shareholder value :

- Rate of Sales Growth
- Operating Profit Margin
- Income Tax Rate
- Investment in Working Capital
- Fixed Capital Investment
- Cost of Capital
- Life of the Project

The first five value drivers can be used to calculate the free cash flow for each year throughout the life of the project. These are then discounted at the company's cost of capital to get shareholder value.

It is important to remember that value is not just a financial concept. Shareholders can attach non-financial value, e.g. social responsibility, corporate governance, brand value of the company etc.

Question 5(a) : [10 Marks - Practical Question]

Reference : Chapter 3 - Lean System & Innovation

Topic : Total Productive Maintenance (TPM) & Overall Equipment Effectiveness (OEE)

Sakara Ltd. manufactures spare parts. For production it uses many machines. It supplies the following information pertaining to one of the vital machines used by it for the month of September, 2021.

- Total production in that month 3,000 units.
- No. of units accepted out of the above production 2,860 units
- Std. time for actual production 200 hrs.
- Actual time worked during the month 240 hrs.
- Time lost during the month 35 hrs.

Required :

(i) Identify a suitable approach to measure the total productive maintenance performance of the machine. **(1 Mark)**

(ii) List the losses to be identified to measure the maintenance performance. **(2 Marks)**

(iii) Calculate the total productive maintenance performance of the machine under the identified approach in (i) above. **(4 Marks)**

(iv) Evaluate the effectiveness of the maintenance of the machine if the World Class Index is more than 85%. **(3 Marks)**

Answer 5(a) :

(i) The most important approach to the measurement of TPM performance is known as Overall Equipment Effectiveness (OEE) measure.

(ii) The calculation of OEE measure enquires the identification of "six big losses". These are :

1. Equipment Failure / Breakdown
2. Set-up / Adjustments
3. Idling and Minor Stoppages
4. Reduced Speed
5. Reduced Yield and
6. Quality Defects and Rework

The first two losses refer to time losses and are used to calculate the **availability** of equipment. The third and fourth losses are speed losses that determine **performance** efficiency of equipment. The last two losses are regarded as **quality** losses.

(iii) Calculation of OEE :

a. Availability Ratio :

$$= \frac{\text{Actual operating time available}}{\text{Planned production time}} \times 100$$

$$= \frac{(\ 240 \text{ hours}\ )}{(\ 240 + 35 \text{ hrs.})} \times 100 = 87.27\%$$

b. Performance Ratio (i.e. Efficiency Ratio) :

$$= \frac{\text{Standard time required for actual output}}{\text{Actual time taken for actual output}} \times 100$$

$$= \frac{(\ 200 \text{ hours}\ )}{240 \text{ hours}} \times 100 = 83.33\%$$

c. Quality Ratio :

$$= \frac{\text{Number of units accepted}}{\text{No. of units produced}} \times 100$$

$$= \frac{2{,}860 \text{ units}}{3{,}000 \text{ units}} \times 100 = 95.33\%$$

d. OEE Ratio :

OEE % = Availability x Performance x Quality

= 87.27% x 83.33% x 95.33%

= 0.8727 x 0.8333 x 0.9533

= 0.6933 = 69.33%

(iv) Evaluation of Effectiveness of OEE :

OEE may be applied to any individual assets or to a process. It is impossible that any manufacturing process can run at 100% OEE. The suggested ideal values for the OEE component measures are :

Availability	> 90%
Performance	> 95%
Quality	> 99%

Accordingly, OEE at World Class Performance would be approximately 85% (i.e. 0.90 x 0.95 x 0.99). However, any figure greater than 50% is more realistic and therefore more useful as an acceptable target. One can say that the value of OEE should lie between 50% to 85%.

However, in the above case, OEE level is around 69%, which is lower than 85%. Though it is an acceptable performance, however it obviously means that the company has got some opportunities for improvement. Company may improve OEE by collecting information related to all downtime and losses on equipment, analysing such information through graphs and charts, making improvement decisions thereon like autonomous maintenance, preventive maintenance, reduction in set up time etc. and implementing the same.

Question 5(b) : [10 Marks - Theory Question]

Reference : Chapter 8 - Performance Measurement & Evaluation

Topic : Performance Measurement in Not for Profit Sector

TAX ADVISER ASSOCIATION (TAA) is a not-for-profit organisation with the objective of skill development of professionals in the area of Accounts, Taxation and Management. TAA believes that there is a great demand of persons with perfect skill for handling the affairs of not-for-profit organisations like itself, which may be engaged in similar other charitable objects like healthcare, education, community development etc.

TAA recognises the need of Strategic Management of entities in the not-for-profit sector, so that the true purpose of committing funds to such charitable objects, is effectively achieved. Funds may be obtained from donors, subscribers, surplus from internal activities of the not-for-profit entities, etc.

TAA also recognises that the underlying objective of these not-for-profit entities is not to earn profits and distribute dividends to the members. Hence, the performance evaluation using Financial Measures like Profitability, Return on Net Assets, Economic Value Added, Residual Income, etc. are not relevant, since the objective of Shareholder's Wealth Maximisation is not relevant. In spite of that the management of TAA wants to know the need for performance measurement of not-for-profit entities and the scope for the same.

Hence, the management raises the following issues to get your expertise input.

You are required to :

(i) EXPLAIN the objects of not-for-profit entities. **(1 Mark)**

(ii) DESCRIBE in brief the reasons why Performance Measurement is required for not-for-profit entities. **(1 Mark)**

(iii) LIST the challenges in Performance Measurements of not-for-profit entities. **(3 Marks)**

(iv) ANALYSE the Value for Money (VFM) framework for Performance Measurement of not-for-profit entities. **(2 Marks)**

(v) EXPLAIN how the Adapted Balance scorecard Approach can be applied for not-for-profit entities. **(3 Marks)**

Answer 5(b) :

(i) Not-for-profit entities are established for purpose of charitable, welfare, social, environmental, mutual co-operations and perform non-economic activities largely as a principal operation.

(ii) Despite the fact that the not-for-profit organisation need not earn a profit, but it doesn't free them from fiduciary responsibility towards the contributor of funds. They are responsible to provide reasonable assurance to the contributor of fund that the fund is applied for the advancement of the stated purpose and up to which scale such purpose is attained.

So, in order to establish a measurable link between resources spent and purpose attained, the performance of not-for-profit organisation (and the decision taken thereat) need to be measured.

(iii) The performance measurement in not-for-profit organisations is subject to certain challenges. The key challenges are –

1. It is difficult to quantify the benefit derived from the activities of these organisations in the scale of money, especially due to the nature and timing of benefits. Similarly, all the costs can't be measured in monetary terms.
2. Performance of not-for-profit organisations largely depends upon performance and the commitment of state.
3. A not-for-profit organisation may have multiple objectives to be achieved and there may be existing or potential conflict among them.
4. Not-for-profit organisation finds it difficult to measure the utility of funds expended.

(iv) Value for money (VFM) incorporates three elements : Economy (reducing input costs), Efficiency (getting more output for the same or lesser input) and Effectiveness (getting better at achieving objectives). In other words, value for money is defined as the achievement of economy, efficiency and effectiveness in the acquisition and use of resources to meet objectives.

Analysis of TAA :

In the TAA context, effectiveness is closely linked to the quality of research, training, learning and other outcomes as well as their supporting processes. A measure of effectiveness is whether the TAA has been able to provide quality training to the desired number of professionals. The performance of the TAA can also be measured using the metrics of the professionals who have successfully completed the skill development training and joined profession (started work).

In the TAA context, efficiency combines a broad range of activities that support day-to-day operations. A measure of efficiency could be the number of professionals trained per hour spent by trainer or the professionals to trainer ratio.

A measure of an economy would be the amount spent on maintaining the association premises, the amount spent on remuneration to trainers etc. The amount spent can be compared to the budgeted expenditure or sanctioned amount.

If performance is measured based on the cost incurred, the TAA might as well decide to cut necessary expenditure to meet the expenditure budget. For example, the TAA might not spend an adequate amount to upkeep the library or computer equipment, such measures are not necessarily effective as they could disrupt achievement of the TAA's goals. Hence, it is important to balance financial measures with non-financial measures.

(v) Kaplan developed the 'Adapted Balance Scorecard' for measuring the performance of not-for-profit entities. The four perspectives suggested by adapted balanced scorecard are exactly the same as suggested earlier by Kaplan and Norton.

What makes Adapted Balanced Scorecard different from earlier Balanced Scorecard, is the assumption of the framework, the premises of each perspective. The main assumption is that "mission statement" is central point to attain, rather profit.

Perspective	**Focus**
Customer Perspective ↑	Satisfaction of beneficiary, Market Growth, and other stakeholder's interest.
Financial Perspective ↓	Fund raising, Funds growth, and Funds distribution.
Internal Process Perspective	Internal efficiency, Volunteer development, Information communication, and Quality.
Innovation and Learning Perspective	The capability of organisation to adjust to the changing environment and Innovative changes.

It is important to note that the positioning of financial perspective and customer perspective is switched. This is due to the fact that achieving financial success is not the primary objective for these organisations. Instead, non profit organisations should be primarily concerned with how efficiently they meet the needs of their beneficiaries and members.

Question 6(a) : [10 Marks - Practical + Theory Question]

Reference : Chapter 6 - Decision Making

Topic : Further Processing Decision

XYZ Ltd. is engaged in the production of three joint products X, Y and Z. Product Z has a realizable value of ₹ 42 p.u. if it is processed further after the point of separation. Otherwise Z has no saleable value.

The costs attributable to Z upto the point of separation is ₹ 70 p.u. (variable ₹ 40 and fixed ₹ 30). To process Z further after the point of separation, the cost to be incurred p.u. is ₹ 30 (variable ₹ 20 and fixed ₹ 10). Before taking a decision on further processing of Z and on some other issues the company seeks your advice.

Required :

(i) Advise whether the joint product Z should be processed further or not.

(ii) If product Z is not a joint product what is your advice regarding the further processing of Z.

(iii) List the situations in which minimum pricing approach is followed by an organization.

(iv) Analyse how "Keep or drop" operating decisions are taken in a normal situation.

Answer 6(a) :

(i) When Z is a joint product, its cost up to the point of separation is irrelevant for decision making. Since joint products are the result of same raw material and same process operations. But cost incurred for Z after the point of separation should be considered, as it is an avoidable cost. Accordingly, saleable value of one unit of Z is ₹ 42 and total cost after separation is ₹ 30 per unit. This will generate an incremental contribution of ₹ 12 per unit towards joint production cost. Hence, further processing of Z is advisable.

(ii) If Z is not a joint product, decision should be taken on the basis of total variable cost and saleable value. In this case, saleable value per unit is ₹ 42 and total variable cost is ₹ 60 (₹ 40 + ₹ 20) leading to a negative contribution of ₹ 18 per unit. Hence, further processing of Z is not advisable.

(iii) The minimum pricing approach is a useful method is situations where :

- there is a lot of intense competition,
- there exists a surplus production capacity,
- we need to clear the stock of old inventories,
- we are getting special orders and/or
- our aim is to improve market share.

The minimum price should be set at the incremental costs of manufacturing, plus opportunity costs (if any). It is the lowest possible selling price for a company without incurring an incremental loss.

(iv) "Keep or Drop" Decision

Operating decision that management must make is whether to keep or drop unprofitable segments, such as product lines, services, divisions, departments, stores, or outlets. The decision is based on whether or not the segment's revenue exceeds the costs directly traceable to the to the segment, including any direct fixed costs.

Analysis – Keep or Drop?

- If incremental cost savings > incremental revenue lost, the segment should be dropped, unless qualitative characteristics fiercely impact the decision.
- If incremental revenue lost = incremental cost savings, qualitative effects must be used to make the decision.
- If incremental cost savings < incremental revenue lost, the segment should not be dropped, unless qualitative characteristics fiercely impact the decision.

Question 6(b) : [10 Marks - Practical Question]

Reference : Chapter 11 - Budgetary Control

Topic : Flexible Budget

K Ltd. had a profit plan approved for selling 5,000 units per month at an average price of ₹ 10 per unit. The budgeted variable cost of production was ₹ 4 per unit and the fixed costs were budgeted at ₹ 20,000 and the planned income being ₹ 10,000 per month. Due to shortage of raw materials, only 4,000 units could be produced and the cost of production increased by 50 paise per unit. The selling price was raised by ₹ 1 per unit. In order to improve the production process, an expenditure of ₹ 1,000 was incurred for research and development activities.

You are required to prepare a performance budget a summary report for the month by incorporating the planned income, actual income and variances.

Answer 6(b) :

K Ltd.

Performance Budget

Particulars	**Original Plan (₹)**	**Revised Plan (₹)**	**Actual Position (₹)**
No. of units	5,000	4,000	4,000
Sales Revenue	50,000 [5,000 x 10]	40,000 [4,000 x 10]	44,000 [4,000 x 11]
Less : Variable Cost	20,000 [5,000 x 4]	16,000 [4,000 x 4]	18,000 [4,000 x 4.50]
∴ Contribution	30,000	24,000	26,000
Less : Fixed Cost	20,000 [Given]	20,000 [Same]	21,000 [20,000 + 1,000]
∴ Net Income	10,000	4,000	5,000

Summary Report

Particulars	**(₹)**
Original Planned Income	10,000
Sales Price Variance [4,000 x (₹ 11 - ₹ 10)]	4,000 (F)
Sales Contribution Volume Variance [₹ 6 per unit x (5,000 - 4,000 units)]	6,000 (A)
Variable Cost Variance [4,000 units x (₹ 4 - ₹ 4.50)]	2,000 (A)
Fixed Cost (Expenditure) Variance [₹ 21,000 - ₹ 20,000]	1,000 (A)
Actual Income	5,000

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