DEC 2021

Roll No. ....

Total No. of Questions – 6

Final New Syllabus
Paper - 5
Strategic Cost Management & Performance Evaluation

Total No. of Printed Pages – 15

Time Allowed – 3 Hours

Maximum Marks – 100

Snug 13/12 5:30 PM

RDA

Answers to questions are to be given only in English except in the case of candidates who have opted for Hindi Medium. If a candidate has not opted for Hindi Medium, his/her answers in Hindi will not be valued.

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 respective answer.

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

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1. ABC Metals Limited, a pioneer in pure Lead metal and alloys commenced its operations in the year 2005 in 150 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

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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, savings and investment rates, government policies and in turn it is resulting in reduction in Natural Resources, Pollution, Climate Change, Global Warming, Industrial and Household Waste, Ozone Layer Depletion etc. This requires special attention and therefore preservation of natural resources and

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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 consultants with a right blend of juniors and seniors to carry out the analysis on environmental costs 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

(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

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

(d) Describe what is meant by identification of Environmental costs. 2

(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

(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

2. 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

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Profit Margin :

	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 life time value of a 'Good customer' who is 20 years of age. 2

(ii) Calculate the life time value of an 'Excellent customer' who is 25 years of age. 2

(iii) Sunayna, holding an International management degree and the daughter of the Managing Director who has taken up the positon 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. Sunayna, 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. 4

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Advise the management whether the brand endorsement programme is worth ₹ 10 Crores ?

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". 4

In the light of this statement, recommend the steps to ascertain CLV of a particular customer.

(c) The whole concept of 'Customer Lifetime Value' revolves around four terms. 4

(1) Customer Selection;

(2) Customer Acquisition;

(3) Customer Retention and

(4) Customer Extension.

Briefly explain these terms.

(d) Consider the different scenarios listed below and 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) ½×8 =4

(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 matrics.

(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, advertisers 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.

3. 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	1600 tonnes
Demand from Division B for processed cocoa beans	1250 tonnes
External market selling price 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	1000 tonnes
Market selling price for roasted cocoa beans	₹ 40,000 per tonne

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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 to external customers. The transfer price 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 show 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

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

(b) Prepare statements that show the budgeted contributions 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

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(c) Discuss TWO behavioral 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

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

4. (a) 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. 5

You are required to :

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

(b) 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 5

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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. What are the break even points under either alternative ? Recommend the better alternative with reason.

OR

Analyse any five factors contributing for a low customer's price sensitivity. 5

(c) (i) Lifeline Limited provides you the following financial information as on 31st March, 2021. 4

	(₹ 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 Limited.

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(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

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

5. (a) 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 September, 2021.

Total production in that month 3000 units

No. of units accepted out of the above production 2860 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

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

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

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

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(b) 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.

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You are required to :

(i) Explain the objects of not-for-profit entities. 1

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

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

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

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

6. (a) XYZ Ltd., is engaging 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. The issues are : 10

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 advise regarding the further processing of Z.

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(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.

(b) K Ltd. had a profit plan approved for selling 5000 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 4000 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 ₹ 1000 was incurred for research and development activities. **10**

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