UNIVERSITY OF COLOMBO, SRI LANKA

FACULTY OF MANAGEMENT AND FINANCE

Bachelor of Business Administration Honours in Accounting (Semester V) Examination – July, 2022

ACT 3203 – Advanced Management Accounting

Two (02) Hours

This is an Open Book Examination

This Paper Consists of Five (05) Questions Printed in Six (06) Pages

Answer <u>Four (04) Questions</u> in all <u>including Question 01</u>

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1. i. Explain how management accounting would support the survival of a firm during a turbulent business environment as currently experienced in Sri Lanka.

(08 Marks)

ii. Explain the importance of distinguishing economic performance and managerial performance of a division.

(08 Marks)

iii. Identify different stages of the Product Life Cycle (PLC) and explain suitable performance measurements that could be applied for each of those stages.

(09 Marks)

(Total 25 marks)

2. i. MAC Plc is an apparel organization and it produces ladies' swimwear: Solid Fitness. The marketing team of the firm has estimated the level of demand at different selling prices for this product as follows;

Demand (Units)	**Selling Price per Unit (Rs.)**	**Cost per Unit (Rs.)**
1100	6,800	4,200
1200	6,600	4,100
1300	6,500	4,000
1400	6,200	3,900

Calculate the marginal revenues and marginal costs for the product Solid Fitness at different levels of demand and determine the selling price at which company profits are maximized.

(05 Marks)

ii. Sri Lankan companies, particularly those in the Information Communication Technology (ICT) industry, have begun to offer dollar-pegged salaries for their employees. Explain the validity of this approach, especially to the ICT sector employees.

(04 Marks)

iii. Electra is an electric bike manufacturer. It expands its product range and continues to develop new models due to high demand from customers. The company ensures that it has products at each stage of the Product Life Cycle (PLC).

Currently, it has three (03) products; Electra Green Go, Battle 1,200W and Runner XP. Electra Green Go has been introduced to the market two years ago and it is now entering the maturity stage of its life cycle. The expected life in the maturity stage for this product is fifteen (15) weeks. The variable production cost of Electra Go is Rs.120,000. The merchandising team is unsure what price the company should charge during the next fifteen weeks for this product, from the four possible prices below. The following table shows the level of weekly demand at alternative prices based on the results of market research conducted.

Selling Price of One Unit of Electra Go (Rs.)	210,000	180,000	150,000	130,000
Weekly Demand (Units)	600	800	1,000	1,200

Following a penetration pricing policy, Battle 1,200W has been introduced to the market a few months ago and as per the market research team, this product is entering the growth stage of its PLC. The growth stage is expected to last for four months. The variable cost of Battle 1,200W is Rs. 85,000. Market research has indicated that there is a linear relationship ($P = a – bx$) between its selling price and the number of units demanded. The team has further found that at a selling price of Rs. 160,000 per unit, demand is expected to be 1,000 units per week. For every Rs.10,000 increase in selling price, the weekly demand will reduce by 200 units and for every Rs.10,000 decrease in selling price, the weekly demand will increase by 200 units.

The product Runner XP is still in the development stage and the company expects to apply a market skimming pricing policy to price this product. The production capacity of the company for the period is 1,200 units.

Based on the above information, you are required to:

a. Calculate the selling prices that should be charged for the product Electra Green Go, to maximize its contribution during the maturity stage of its PLC.

(06 Marks)

b. Determine the selling price of the product Battle 1,200W during its growth stage.

(06 Marks)

c. Suggest a suitable pricing strategy that could be applied to Runner XP during the introduction stage of the PLC.

(04 Marks**)**

(Total 25 marks)

3. i. Value chain analysis, strategic positioning analysis and cost driver analysis are key concepts that could be applied to contemporary business organization in order to be competitive. Explain the underlined terms.

(06 Marks)

ii. Sorento Ltd and Ola Ltd are part of the same group of companies. Ola Ltd has offered to Sorento Ltd that it could supply component W at a transfer price of Rs.150 per component. Ola Ltd processes and sells component W to customers external to the group at Rs.150 per component. Ola Ltd bases its transfer price as cost plus a 30% profit mark-up. The total cost has been estimated as 70% variable and 30% fixed.

Using the above information discuss the transfer price Ola Ltd should offer to Sorento Ltd for component W in order to ensure the group profit-maximizing decisions in each of the following situations:

a. Ola Ltd has an external market for all of its production of the component W at a selling price of Rs.150 per component. Internal transfers to Sorento Ltd would enable Rs. 16 per kg of variable packing cost to be avoided.

(04 Marks)

b. Conditions are as per (a) but Ola Ltd has a production capacity for 3,000 units of component W for which no external market is available.

(04 Marks)

c. Conditions are as per (b) but Ola Ltd has an alternative use for some of its spare production capacity. This alternative use is equivalent to 2,000 units of component W and would earn a contribution of Rs. 60,000.

(05 Marks)

iii. When there is a perfectly competitive market for the intermediate product, the most appropriate transfer price is the external market price. Explain this statement.

(06 Marks)

(Total 25 marks)

4. i. An investment in a project has the following cash inflows and outflows. Calculate the net present value (NPV) of the investment at a discount rate of 9%.

Time (Year)	Cash Flow per year (Rs.)
0	(500,000)
1-3	100,000
4-6	150,000
8	(100,000)

(06 Marks)

ii. ABC Plc has two divisions, SA and SB. Division SA is currently earning a profit of Rs.3,500,000 and has net assets of Rs.15,000,000. Division SB currently earns a profit of Rs.7,000,000 with net assets of Rs. 32,500,000. The current cost of capital of the business is 15%.

You are required to calculate the return on investment (ROI) and residual income (RI) for the two divisions of ABC Plc and comment on your results.

(06 Marks)

iii. Mr. Weerathunga plans to obtain a loan of Rs.600,000 at an interest rate of 12% per annum. He plans to make equal monthly payments (principal and interest) over 5 years starting from one month after the loan is obtained. Calculate the monthly repayment of the loan.

(06 Marks)

iv. Ms. Priya is planning to pay Rs. 50,000 into a fund on a monthly basis for 15 years starting from the next year. The interest rate will be 2% per month. Once all the payments have been made, the investment will be transferred to an account that will earn interest at 12% per year until maturity. The fund matures 5 years after the last payment is done to the fund. Calculate the terminal value of the fund in 20 years' time.

(07 Marks)

(Total 25 marks)

5. Write short notes on the following;

i. Formal and Informal Control Mechanisms

ii. Product Life Cycle and Pricing Strategies

iii. Economic Value Added (EVA)

iii. Cost Reduction and Cost Management

iv. Incentive Compensation and Performance Measurement

v. Functional and Divisionalized Organizational Structures

(05 Marks X 05 = Total 25 marks)