# THE UNIVERSITY OF BOLTON OFF CAMPUS DIVISION

# **BANKING UNIVERSITY HCMC**

# **SEMESTER 1 EXAMINATIONS 2024/2025**

# **BSC (HONS) BUSINESS MANAGEMENT**

# FINANCIAL REPORTING FOR MANAGEMENT

**MODULE NO: BMP6042** 

Date: 10<sup>th</sup> January 2025 Time: 3 HOURS

### **INSTRUCTIONS TO CANDIDATES**

This is an open book examination. You are <u>ONLY</u> allowed to take into the examination <u>two sides of A4</u> handwritten notes.

Course & workshop hand-outs, textbooks or Study Guides are <u>NOT</u> permitted.

There are SIX questions on this paper. Answer <u>THREE</u> questions,

ONE question from EACH Section A, B & C.

Candidates are advised that the examiners attach importance to legibility of writing and clarity of expression.

This examination carries <u>70%</u> of the marks for this module.

### **QUESTION A1. CVP ANALYSIS**

### Requirements:

a) Calculate the profitability metrics for the EcoFlo Standard Model, EcoFlo Pro Model, and the combined Mix (Average) using the provided data by completing the table on the next page. Ensure each calculation is supported by detailed workings.

Based on your calculations, analyze the profitability of each product and their product mix. Provide specific recommendations to improve the profitability of both models, considering potential changes in cost management, or marketing strategies.

(14 marks)

Note: Students should answer directly in the table provided on the next page and include workings either on a separate sheet or below the question, as preferred.

b) Using the calculated data from part (a), perform a sensitivity analysis on key profitability drivers, including selling price, material costs, labor costs, and sales volume. Determine the single most and the least sensitive factor that presents the greatest financial risk, provide a clear justification for your selection.

Explain the implications of these sensitivity levels on decisions-making or outcomes. Provide specific recommendations to address or leverage these sensitivities effectively

(8 marks)

c) Critically evaluate ONE benefit and ONE limitation of CVP analysis in the context of launching the EcoFlo Smart Water Purifier. Your response should include a detailed analysis using the business context and insights from part (a) and part (b) to support your arguments.

(8 marks)

Total: 30 marks

QUESTION A1b TABLE CONTINUES OVER THE PAGE
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# **QUESTION A1b TABLE CONTINUED**

QUEUTIC		Standard model		NAiv (Avens == )
		Standard model	Pro model	Mix (Average)
Sales volume	Units			
Selling price	£/unit			
Direct material cost per unit	£/unit			
Direct labour cost per unit	£/unit			
Contribution per unit	£/unit			
C/S ratio				
Sales revenue	£			
Direct material cost	£			
Direct labour cost	£			
Contribution margin	£			
Less: Annual fixed costs	£			
Net operating income before interest	£			
Less: Interest expense	£			
Net operating income before tax	£			
Less: Income tax	£			
Income after income tax	£			
Sales volume to reach Break-even	Units			
Sales revenue to reach Break-even	£			
			-	PLEASE TURN PAGE

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### **QUESTION A2. SHORT-TERM DECISION MAKING**

### Requirements:

a) Should the company approve the special order based on the principles of variable costing, considering its impact on contribution margin and short-term profitability?

(10 marks)

b) Critically evaluate the effectiveness of variable costing in decision-making for the special order, highlighting its strengths and limitations in the given context.

(10 marks)

- c) Evaluate the potential impact of accepting ClearLiving's bulk order on GreenSphere's long-term strategic positioning. Your response should identify and analyze opportunities, risks, and provide recommendations for each of the following aspects:
  - Sustainability Practices
  - Innovation Capacity
  - Market Position and Brand Reputation
  - · Operational Balance

Note: Operational Balance refers to how well a company manages its resources, such as production capacity, workforce, and logistics, to meet both immediate and long-term business needs. In the context of the bulk order from ClearLiving, it involves ensuring that fulfilling this large order does not disrupt GreenSphere's regular operations, customer service, or strategic goals.

(10 marks)

Total: 30 marks

### SECTION B: PERFORMANCE AND COST ANALYSIS

### **QUESTION B3. VARIANCE ANALYSIS**

### Requirements:

- a) Calculate the following variances for GreenSphere Solutions' EcoFlo Smart Water Purifier series in its first year:
  - Direct Material Variance
  - Direct Labour Efficiency Variance
  - Direct Labour Rate Variance
  - Total Direct Labour Variance
  - Fixed Overhead Expenditure Variance

(10 marks)

b) Evaluate the financial performance of GreenSphere Solutions based on the calculated variances. Identify possible reasons behind these financial fluctuations and suggest strategies to improve financial health, focusing on sustainable practices.

(10 marks)

c) Critically evaluate the application of variance analysis in assessing GreenSphere Solutions' financial performance. Discuss the relevance and limitations of variance analysis, incorporating the business context and the results from parts (a) and (b) to provide a comprehensive and in-depth analysis.

(10 marks)

Total: 30 marks

### **QUESTION B4. ACTIVITY-BASED COSTING**

### Requirements:

a) Using the Activity-Based Costing (ABC) method, calculate and complete the tables on the next pages for both the Standard and Pro models of the EcoFlo Smart Water Purifier series. Ensure that you show all workings clearly to support and justify your results.

(10 marks)

Note: Students should answer directly in the two tables provided on the next pages and include workings either on a separate sheet or below the question, as preferred.

b) Evaluate the profitability of the Standard and Pro Models using ABC analysis. Identify key factors affecting profitability and propose solutions to improve it.

(10 marks)

c) Critically evaluate the advantages and limitations of Activity-Based Costing (ABC) as a financial analysis tool for GreenSphere Solutions, particularly in the context of sustainability-driven innovation. Your response should provide a detailed analysis, incorporating the business context and insights from parts (a) and (b) to substantiate your arguments.

(10 marks)

Total: 30 marks

**QUESTION B4a TABLE CONTINUES OVER THE PAGE** 

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## **QUESTION B4a TABLE CONTINUED**

### Activity-Based Costing (ABC) Analysis for EcoFlo Smart Water Purifiers

Overhead cost category	Cost	Cost driver		Overhead rate	Activities for each product type		Overhead allocated for each product type	
					Standard	Pro	Standard	Pro
	£	Amount	Unit	£			£	£
R&D								
Marketing								
Distribution								
Depreciation								
			Total allocated overhead cost		£			
			Production volume  Allocated overhead cost per unit  Direct materials cost per unit  Direct labour cost per unit  Total unit cost  Selling price			£		
						£		
						£		
						£		
						£		
						£		
			Profit per unit			£		
			Profit margin			%		

QUESTION B4a TABLE CONTINUES OVER THE PAGE PLEASE TURN PAGE

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**QUESTION B4a CONTINUED** 

# Full Cost Per Unit Analysis Using Activity-Based Costing (ABC) Standard Pro Category £ % £ % R&D cost per unit Marketing cost per unit Distribution cost per unit Depreciation cost per unit Total overhead cost per unit Direct materials cost per unit Direct labour cost per unit Selling price per unit Profit per unit

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### **SECTION C: STRATEGIC ANALYSIS**

### **QUESTION C5. CAPITAL INVESTMENT APPRAISALS**

### Requirements:

a) Calculate the Accounting Rate of Return (ARR), Payback Period, Net Present Value (NPV), and Internal Rate of Return (IRR) for the EcoFlo Smart Water Purifier Project.

Note: Use interpolation to calculate the IRR by testing two discount rates: 8% and 50%

(12 marks)

b) Discuss the implications, advantages, and limitations of each financial metric (ARR, Payback Period, NPV, and IRR) in evaluating the financial health of GreenSphere Solutions. Use the calculated metrics to assess the company's financial health: strengths and risks

(16 marks)

- c) Using evidence given in the case and results from parts (a) and (b), critically evaluate the overall strategic suitability of the EcoFlo project for GreenSphere. The evaluation focuses on the following:
  - Alignment: Assess how the EcoFlo project aligns with GreenSphere's mission, objectives, and competitive positioning in the market, incorporating insights from the calculations and analyses in parts (a) and (b).
  - Challenges: Identify potential obstacles or limitations that may hinder the strategic success of the EcoFlo project, incorporating insights from the calculations and analyses in parts (a) and (b).
  - Recommendations: Propose actionable strategies to address these challenges and enhance the project's strategic viability, ensuring alignment with GreenSphere's long-term goals and market positioning.

(12 marks)

Total: 40 marks

### **QUESTION C6. TRANSFER PRICING POLICY**

### Requirements:

a) Determine the Minimum and Maximum Transfer Prices for the Filtration Components within GreenSphere Solutions and explain the logic for your calculation.

(10 marks)

- b) Discuss how strategic transfer pricing fosters collaboration between the Core Filtration Production Division and the Integrated Purification Solutions Division at GreenSphere Solutions. Your response should address the following:
  - How does transfer pricing ensure the financial stability and profitability of both divisions?
  - How does transfer pricing enhance the coordination of operations and the overall efficiency of GreenSphere's supply chain?
  - Why is using a pricing framework with a range more effective than a fixed price in ensuring adaptability and reducing inter-divisional friction?

(18 marks)

- c) Analyze how transfer pricing enhances GreenSphere's overall performance. Your response should focus on the following aspects:
  - Improving Operational Efficiency: Discuss how transfer pricing mechanisms optimize resource allocation across different divisions of GreenSphere, reducing redundancies and enhancing overall operational efficiency.
  - Supporting Sustainability-Focused Innovations: Explain how transfer pricing can fund and encourage investments in eco-friendly innovations.
  - Maintaining Product Quality and Delivery Reliability: Analyze how transfer pricing ensures consistent quality and reliable delivery by fostering collaboration among GreenSphere's divisions.
  - Enabling Competitive Pricing and Market Penetration: Highlight how transfer pricing supports competitive pricing strategies by controlling internal costs.

(12 marks)

Total: 40 marks

**END OF QUESTIONS**