OCD16

THE UNIVERSITY OF BOLTON

OFF CAMPUS DIVISION

BANKING UNIVERSITY HCMC

BA (HONS) BUSINESS MANAGEMENT PATHWAYS

SEMESTER 1 EXAMINATIONS 2023/2024

FINANCIAL REPORTING FOR MANAGEMENT

MODULE NO BMP6042

Date: 15th Dec 2023 **Time: 3 HOURS**

INSTRUCTIONS TO CANDIDATES

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

Course & workshop hand-outs, textbooks or Study Guides are NOT permitted.

There are SIX questions on this paper.
Answer THREE 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 70% of the marks for this module.

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SECTION A. ANSWER ONE QUESTION ONLY FROM THIS SECTION

QUESTION A1. CVP analysis

Phoenix Technologies
Phoenix Technologies is a leading technology company known for its expertise in developing cutting-edge software solutions. The company has achieved success in the software services sector and is now contemplating on a strategic expansion into the hardware market by developing and launching a new line of high-performance laptops. The CEO, Sarah Johnson, believes that this move will not only open new revenue streams but also position Phoenix Technologies as a comprehensive technology solutions provider.

The laptop market is highly competitive, with established players and emerging brands offering a wide range of products catering to diverse consumer needs. Market trends indicate a growing demand for high-performance laptops, particularly among remote workers, students, and professionals in creative industries.

Phoenix Technologies aims to differentiate itself by focusing on superior build quality, innovative features, and a seamless integration of hardware and software components. The company has identified two customer segments: the performance-focused professional and the design-conscious creative professional.

Investment Details:

1. *Development Costs*: The initial investment for developing the new laptop line is estimated at £10 million, covering research and development, prototyping, and manufacturing setup.
2. *Targeted Return*: The company aims for a 15% return on the investment after taxes.
3. *Tax Rate*: Phoenix Technologies operates in a jurisdiction with a corporate tax rate of 20%.

Product Details:

1. *Professional Series*: A high-performance laptop designed for professionals requiring advanced processing power, security features, and durability.
2. *Creative Series*: A sleek and design-centric laptop tailored for creative professionals, emphasizing high-quality displays, graphics capabilities, and user-friendly design.

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QUESTION A1 CONTINUED

Financial Considerations:

1. *Unit Costs*: The company estimates the variable cost per unit for the Professional Series at £800 and for the Creative Series at £900.
2. *Selling prices*: The seng prices have been defined at £1,230 for the Professional Series and £2,000 for the Creative Series, establishing the revenue expectations for each unit sold.
3. *Sales Projections*: Phoenix Technologies forecasts an annual sales volume of 50,000 units for the Professional Series and 30,000 units for the Creative Series.
4. *Fixed Costs*: Fixed costs associated with the new product line, including marketing, distribution, and overhead expenses, are projected to be £5 million per year.

The assignment involves three key components. Firstly, it necessitates a Cost-Volume-Profit (C-V-P) analysis for Phoenix Technologies' hardware market expansion, aiming to determine the required sales level for a 15% return on the £10 million investment. Secondly, it calls for a feasibility assessment based on the C-V-P analysis, covering financial implications, break-even sales volume, and achieved returns. Lastly, the assignment requires a critical evaluation of the utility of C-V-P analysis as a management tool, focusing on its strengths, limitations, and their potential impact on the reliability of analyses conducted in the first two components.

Requirements

a) Conduct a C-V-P Analysis for Phoenix Technologies' Expansion:

   Apply C-V-P analysis to ascertain the acceptable sales level required by Phoenix Technologies' Board of Directors for the contemplated hardware market expansion. Employ the provided financial parameters to calculate the sales volume needed to achieve a targeted 15% return on the $10 million investment. Offer a detailed breakdown of calculations and underlying assumptions to support your analysis.

b) Feasibility Commentary Based on C-V-P Analysis:

   With the insights gained from the Cost-Volume-Profit (C-V-P) analysis in section a, provide a comprehensive assessment of the feasibility of the contemplated hardware market expansion for Phoenix Technologies. Discuss the financial implications, the calculated break-even sales volume, and the achieved targeted return on investment.

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QUESTION A1 CONTINUED

c) Critically Assess the Utility of C-V-P as a Management Model for Phoenix Technologies:

Evaluate the efficacy and limitations of the Cost-Volume-Profit (C-V-P) analysis as a managerial tool within the context of Phoenix Technologies' strategic expansion. Specifically discuss how these limitations might influence the reliability of the analyses performed in requirements a and b

(30 marks)

QUESTION A2. Short term decision making

Textile Creations
Textile Creations is a leading Indian enterprise specialising in the production of fabric wall art. Renowned for their high-quality products, Textile Creations combines traditional craftsmanship with cutting-edge automation to create unique and artistic pieces. Their artwork stands as a fusion of manual artistry and innovative technology, making them valuable pieces of art.

Textile Creations has received a special order from ArtHub Company, a prominent art company with a robust presence in a European country. ArtHub, impressed by the uniqueness and quality of Textile Creations' products, seeks collaboration to meet the increasing demands of their market. ArtHub will market and sell the artworks under their brand in that country.

Production Information:

- The annual production capacity of Textile Creations' factory is 50,000 artworks.
- Current production output is 40,000 artworks per year.
- Variable cost per artwork is £15.00.
- Fixed cost per artwork is £3.50.
- The regular selling price is £30.00 per artwork.

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QUESTION A2 CONTINUED

Special Order from ArtHub:

- The quantity of the special order from ArtHub is 8,000 artworks.
- The special order selling price is £20.00 per artwork.

The assignment requirements underscore the practical application of financial analysis principles in the context of Textile Creations and ArtHub. Students are expected to exhibit a comprehensive grasp of financial concepts as they relate to decision-making in a dynamic business scenario. The analysis should encompass the impact of a special order on operating profit, incorporating adjustments in selling prices and additional costs. Moreover, students are tasked with justifying the consideration or exclusion of fixed costs in decision-making, elucidating both short-term and long-term implications. A well-rounded response should offer clear recommendations, aligning financial calculations with strategic considerations, and ultimately guide Textile Creations in making informed decisions regarding the special order from ArtHub.

Requirements:

a) How would the acceptance of the special order affect the operating profit of textile creations? Should textile creations accept the special order or not taking consideration of the current business situation and future prospects of textile creations.
b) How would your analysis change if the special order selling price were £25.00 per artwork, and textile creations had to pay a £10,000 fee to a lawyer to ensure compliance with export laws and regulations?
c) Why could a manager be justified in ignoring fixed costs when making a decision about a special order? When would fixed costs be relevant when making a decision about a special order?

(30 marks)

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SECTION B. ANSWER ONE QUESTION ONLY FROM THIS SECTION

QUESTION B3. Variance analysis

Alpha Sports Company
The Alpha Sports Company is a reputable manufacturer of high-quality sports products with a presence in both local and international markets. The company is committed to producing top-quality sports equipment, and one of its flagship products is the cricket bat. Cricket bats are specialised pieces of equipment used by batters in the sport of cricket to hit the ball. These bats consist of a cane handle attached to a flat-fronted willow-wood blade, measuring 38 inches in length and 4.25 inches in width.

To maintain cost control and optimize manufacturing processes, Alpha Sports Company employs a well-established standard costing system. This system sets predetermined standards for direct materials and direct labor required to manufacture each cricket bat. The standards serve as benchmarks against which actual performance is measured, allowing the company to identify variances and make informed decisions to enhance efficiency and profitability.

Data for the Assignment: During the last month, the company produced 4,000 cricket bats. The data for the assignment includes the following information:

Direct Materials:

- Standard requirement: 5 feet of wood per bat at a standard cost of £0.60 per foot.
- Actual purchase: 50,000 feet of wood purchased at £0.56 per foot.
- Ending inventory: 20,000 feet of wood in stock at the end of the month.

Direct Labor:

- Standard requirement: 1.2 hours of labor per bat at a standard rate of £14.00 per hour.
- Actual hours worked: 6,400 direct labor hours at an actual rate of £15.00 per hour.

Additional Information: The production manager is keen on comparing the actual results with the planned expectations. This desire for a thorough comparison underscores the importance of the standard costing system as a tool for performance evaluation and decision-making. The manager's interest in this comparison reflects a commitment to continuous improvement and a proactive approach to addressing any discrepancies between planned and actual performance.

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QUESTION B3 CONTINUED

The requirements emphasize the application of theoretical concepts to the specific business case of Alpha Sports Company. Students should demonstrate a clear understanding of how standard costing operates in practice within the cricket bat manufacturing context and critically analyze its impact on cost control, performance evaluation, budgeting, planning, decision-making, and the associated limitations.

Requirements:

a) Variance Analysis:

- Calculate the quantity and price variances for direct materials using the cricket bat production data.
- Determine the efficiency and rate variances for direct labor based on the actual hours worked and the standard labor rate.
- Provide a detailed analysis of how the variance figures relate to the specific context of Alpha Sports Company.

b) Critical Evaluation of Standard Costing:

- Assess how standard costing, as observed in the cricket bat case, assists in decision-making for the company. Provide practical examples of decisions that could be influenced by standard costing information.
- Identify limitations associated with the application of standard costing within the cricket bat production context. Consider how these limitations may impact decision-making and overall performance.

(30 marks)

<u>QUESTION B4. Costing methods</u>

BuildTech Innovations (BTI)
BuildTech Innovations (BTI) is a leading construction and building services company offering a diverse portfolio of construction solutions. The company specializes in providing innovative design-build services for commercial properties and is recognized for its excellence in office space transformations (OST) and retail space expansions (RSE).

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QUESTION B4 CONTINUED

Costing Method:

BTI employs a pricing strategy that involves quoting jobs at budgeted total cost plus 50%. Presently, overheads are absorbed on a labor hour basis. There is a consideration to transition to Activity-Based Costing (ABC) to allocate overheads more accurately and potentially reduce costs associated with office space transformations (OST).

Issue:

Increased Competition and Challenges in Winning Contracts: BuildTech Innovations (BTI) faces a pressing issue in the form of heightened competition and the consequential challenges of securing contracts for office space transformations (OST). In recent times, the company has observed a decline in the number of successfully won OST contracts, raising concerns about market share and revenue growth in this particular segment. The intensified competition may be attributed to changing market dynamics, evolving client preferences, or the entry of new players into the commercial construction sector.

Data:

- **Overhead Categories and Annual Overheads:**
  - Supervisors: £90,000
  - Planners: £70,000
  - Property-related: £240,000
  - Total: £400,000
- **Activity Drivers and Total Activities per Year:**
  - Site visits: 200
  - Planning documents: 250
  - Labour hours: 40,000

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QUESTION B4 CONTINUED

Product Information:

- **Office Space Transformations (OST):**
  - Labour hours required: (not provided)
  - Site visits: 4
  - Planning documents: 3
- **Retail Space Expansions (RSE):**
  - Labour hours required: (not provided)
  - Site visits: 8
  - Planning documents: 6

The assignment requirements emphasize the practical application of theoretical principles within the unique business scenario of BuildTech Innovations (BTI). Students are expected to showcase a comprehensive comprehension of the costing methods employed by BTI, especially the transition from the original costing method to Activity-Based Costing (ABC). The analysis should extend to the practical implications of these costing methods on cost control, strategic decision-making, performance evaluation, and financial planning, with a specific focus on the challenges posed by increased competition and a diminishing success rate in winning contracts for office space transformations (OST). The evaluation should not only highlight the advantages but also critically assess the limitations associated with the proposed changes, providing a well-rounded perspective on their potential impact on BTI's overall business strategy.

Requirements:

a) Calculate for each product the full cost and selling price determined by:

(1) The Original Costing Method:

- Calculate the full cost and selling price for Office Space Transformations (OST) using the original costing method.
- Calculate the full cost and selling price for Retail Space Expansions (RSE) using the original costing method.

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QUESTION B4 CONTINUED

(2) The Activity-Based Costing Method:

- Calculate the full cost and selling price for Office Space Transformations (OST) using the Activity-Based Costing (ABC) method.
- Calculate the full cost and selling price for Retail Space Expansions (RSE) using the Activity-Based Costing (ABC) method.

b) Business/Strategic Options:

- Identify and discuss strategic options for BuildTech Innovations (BTI) in response to increased competition and the challenges of winning fewer Office Space Transformation (OST) contracts.

c) Critically Evaluate the Use of Activity-Based Costing (ABC) Method:

- Critically evaluate the use of the Activity-Based Costing (ABC) method as a basis for setting selling prices, considering its potential impact on cost accuracy, competitiveness, and overall business strategy in the context of office space transformations and retail space expansions.

(30 marks)

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SECTION C. ANSWER ONE QUESTION ONLY FROM THIS SECTION

QUESTION C5. Capital investment appraisals

Manchestera Ltd

Manchestera Ltd, a trailblazer in the precision engineering and industrial machinery manufacturing landscape, stands as a strategic cornerstone in the global market. Recognized for its commitment to innovation and precision, the company operates in a sector where technological advancements are paramount. Specializing in the creation of high-tech machinery and components, Manchestera's products are integral to the automotive, aerospace, and electronics industries.

As it navigates the complexities of a rapidly evolving market, the company is confronted with a pivotal decision between two exclusive capital projects. Project 1, promising an annual net cash inflow of £400,000, necessitates an initial investment of £1,112,000, and offers a scrap value of £112,000. On the other hand, Project 2, with its higher annual net cash inflow of £1,000,000, requires a more substantial initial cost of £3,232,000, yet presents an enticing scrap value of £602,000. Beyond the financial metrics, this decision bears significant business implications, influencing Manchestera's competitive positioning, market share, and overall growth trajectory in the highly competitive landscape of precision engineering.

This assignment challenges students to not only analyse financial aspects but also to consider the broader strategic implications, ensuring the chosen investment aligns seamlessly with the company's overarching goals and market positioning in the long term.

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QUESTION C5 CONTINUED

Manchestera Ltd, a leading player in the precision engineering and industrial machinery manufacturing industry, is currently facing a crucial decision regarding capital investments. Specializing in the production of high-tech machinery and components for sectors such as automotive, aerospace, and electronics manufacturing, the company is dedicated to maintaining a competitive edge through technological advancements and operational excellence. As part of its strategic initiatives, Manchestera is considering two mutually exclusive capital projects involving the acquisition of machinery, each with a lifespan of five years. The company employs the straight-line depreciation method, and its cost of capital is 15% per annum.

Project Details:

Project 1: This project involves an annual net cash inflow of £400,000. The machinery comes with an initial cost of £1,112,000 and has an estimated scrap value of £112,000 at the end of its useful life.

Project 2: Project 2 promises a higher annual net cash inflow of £1,000,000. However, the machinery is more expensive, with an initial cost of £3,232,000 and a scrap value of £602,000.

Beyond the financial metrics, this decision bears significant business implications, influencing Manchestera's competitive positioning, market share, and overall growth trajectory in the highly competitive landscape of precision engineering. The board of directors not only analyses financial aspects but also considers the broader strategic implications, ensuring that the chosen investment aligns seamlessly with the company's overarching goals and market positioning in the long term.

QUESTION C5 CONTINUED OVER PAGE

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QUESTION C5 CONTINUED

The assignment tasks encompass employing the initial investment in calculating the Accounting Rate of Return (ARR), determining the Payback Period, computing Net Present Value (NPV), and applying the interpolation method to ascertain Internal Rate of Return (IRR). Management advisory involves comparing these metrics to guide decision-making, while critical evaluation delves into the strengths and weaknesses of each metric, considering their effectiveness in capital management and aligning with the overarching business strategy for sustainable growth and shareholder value creation.

Requirements:

a) Financial Analysis:

Accounting Rate of Return (ARR): Use the initial investment in the ARR formula to assess the project's average accounting profit relative to the initial investment.

Payback Period: Determine the time required for each project to recover its initial investment.

Net Present Value (NPV): Calculate the present value of net cash inflows for each project over its duration.

Internal Rate of Return (IRR): Utilize the interpolation method to compute the IRR for each project. Recommend initiating the interpolation with two rates, namely 10% and 20%.

b) Management Advisory:

Compare the results of ARR, Payback Period, NPV, and IRR to provide management with insights into the feasibility and attractiveness of each project. Emphasize key indicators such as NPV and IRR to guide management in making informed investment decisions.

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QUESTION C5 CONTINUED

c) Critical Evaluation:
Discuss the strengths and weaknesses of ARR, Payback Period, NPV, and IRR. Evaluate their effectiveness in the context of capital management, considering aspects like the time value of money and the cost of capital.

d) Business Strategy Implications:
Consider the long-term business strategy implications of the investment decisions. Analyse how the chosen project aligns with Manchestera Ltd strategic goals, ensuring sustainable growth and value creation for shareholders.

(40 marks)

QUESTION C6. Transfer pricing policy

TechLink Electronics Inc.

TechLink Electronics Inc. stands as a dynamic and innovative global technology powerhouse, specializing in the production and distribution of cutting-edge electronic components and devices. The company operates through multiple divisions, each playing a pivotal role in the intricate tapestry of its business ecosystem.

Divisions Overview:

Division A: This sector is dedicated to the manufacturing of the highly specialized microprocessor known as Model X1. Renowned for its cutting-edge technology, Model X1 experiences robust market demand owing to its advanced features and stellar performance.

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QUESTION C6 CONTINUED

Division B: Tasked with the distribution and marketing of electronic components, Division B serves as the outward-facing arm of TechLink Electronics. It engages with external clients, playing a crucial role in expanding the company's market reach and influence.

In light of the distinct contributions of each division to the overall success of TechLink Electronics, the imperative for a robust transfer pricing policy becomes evident.

Challenges Faced:

TechLink Electronics currently confronts a critical challenge in determining a fair transfer price for Model X1, the specialized microprocessor produced by Division A, when transferred to Division B. Key data pertinent to this case includes:

- **Marginal Cost:** Division A produces Model X1 at a marginal cost per unit of £100.
- **Contribution Forgone:** If a unit is transferred internally to Division B, £25 contribution is forgone on an external sale.
- **Delivery Cost Saving:** An internal transfer results in a saving of £5 per unit on delivery costs.
- **External Purchase Price:** Division B can purchase Model X1 externally for £150.

The requirements encompass understanding the primary goals behind establishing transfer prices in corporations, focusing on optimizing performance, fostering divisional efficiency, and ensuring transparent resource allocation. The proposed transfer pricing strategy for Model X1 involves a dual-tiered approach, necessitating the determination of a minimum and a maximum transfer price.

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QUESTION C6 CONTINUED

Requirements

a) In light of the dual-tiered approach, determine the optimal minimum transfer price for Model X1 by taking into account the marginal cost, Contribution Forgone, and the £5/unit delivery cost saving for internal sales.

b) Assess how the suggested minimum and maximum transfer prices determined in requirement a can positively impact the performance of InnoTech.

b1) In what ways does that transfer pricing policy foster equity among divisions within the company?

b2) What role does that transfer pricing policy play in incentivizing efficiency within TechLink Electronics Inc.?

b3) In what ways should that transfer pricing policy align with the strategic objectives of TechLink Electronics Inc.?

(40 marks)

END OF QUESTIONS

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