

Roll No



**PRESIDENCY UNIVERSITY  
BENGALURU**

**SET B**

**SCHOOL OF MANAGEMENT  
END TERM EXAMINATION - JAN 2024**

**Semester :** Semester V - 2021

**Course Code :** BBA3007

**Course Name :** Financial Modelling

**Program :** BBA

**Date :** 05-JAN-2024

**Time :** 1:00 PM - 4:00 PM

**Max Marks :** 100

**Weightage :** 50%

**Instructions:**

- (i) Read all questions carefully and answer accordingly.
- (ii) Question paper consists of 3 parts.
- (iii) Scientific and non-programmable calculator are permitted.
- (iv) Do not write any information on the question paper other than Roll Number.

**PART A**

**ANSWER ALL THE QUESTIONS**

**5 X 2M = 10M**

1. Describe Sensitivity Analysis in financial modeling. (CO1) [Knowledge]
2. Name two financial analysis techniques commonly used to evaluate a company's performance and explain their significance. (CO2) [Knowledge]
3. Identify and briefly describe three main components of a balance sheet. (CO2) [Knowledge]
4. Differentiate between gross income and net income on an income statement. (CO3) [Knowledge]
5. Explain the significance of ratio analysis as a modeling technique for assessing the financial health and performance of industries. (CO3) [Knowledge]

## PART B

### ANSWER ALL THE QUESTIONS

5 X 10M = 50M

6. LuxEmporium, a renowned retail brand, is contemplating an expansion into a new market. As a financial analyst, elucidate the key objectives you would pursue in creating a financial model to guide this expansion decision. Discuss how achieving these objectives can contribute to informed decision-making for LuxEmporium.

(CO1) [Comprehension]

7. Pinnacle Innovations Corporation, a dynamic tech startup, is preparing for a significant expansion and seeks to strengthen its financial position. As a financial analyst, outline the key objectives and methodologies you would employ in conducting a thorough cash flow analysis for Pinnacle Innovations. Discuss how this analysis contributes to strategic decision-making and financial planning for the company's expansion.

(CO2) [Comprehension]

8. "You are tasked with conducting a comprehensive financial analysis for a company. Explore and elaborate on the various tools of analysis, such as Comparative Financial and Operating Statements, Common-Size Statements, Trend Ratios and Trend Analysis, Average Analysis, Changes in Working Capital, Fund-Flow and Cash-Flow Analysis, and Ratio Analysis. Detail how each tool contributes to a holistic understanding of the company's financial performance and strategic position. Provide examples to illustrate the application of these tools and discuss the insights derived from each analysis in crafting a well-rounded financial assessment."

(CO2) [Comprehension]

9. As a financial analyst for a hypothetical company, TechGen Innovations, outline the theoretical steps involved in conducting a Discounted Cash Flow (DCF) analysis to determine the intrinsic value of the firm. Assume TechGen Innovations is a technology company with projected future cash flows, and describe how you would approach forecasting cash flows, calculating the terminal value, and selecting an appropriate discount rate. Emphasize the theoretical foundations of DCF and discuss the significance of each step in deriving the intrinsic value. Lastly, elaborate on how sensitivity analysis can be employed to assess the impact of key assumptions on the DCF valuation outcomes.

(CO3) [Comprehension]

10. As the lead financial analyst for Everest Dynamics Corp., you have been tasked with conducting a DuPont Analysis to gain a deeper understanding of the company's financial performance. Taking into consideration the key components of DuPont Analysis—Return on Equity (ROE), Net Profit Margin, Asset Turnover, and Financial Leverage—explore how each element contributes to Everest Dynamics Corp.'s overall ROE.

Provide a detailed examination of the financial statements, and elucidate how DuPont Analysis can offer insights into the company's profitability, efficiency, and leverage. Support your analysis with real-world examples and discuss the strategic implications of the findings for Everest Dynamics Corp.

(CO3) [Comprehension]

**11. Read Passage Carefully and Answer Below Questions:**

TechCraft Dynamics undergoes a detailed financial analysis encompassing the income statement, balance sheet, and cash flow dynamics. In 2021, the income statement showcases substantial revenue growth, driven by the company's agility in adapting to technological shifts in the Indian market. This isn't merely revenue expansion; it represents successful market positioning and client acquisition. Simultaneously, the balance sheet illustrates a robust financial position, reflecting effective asset management and strategic investments in intellectual capital. The ensuing liquidity assessment underscores the company's ability to fulfill short-term obligations, a vital aspect in navigating the sometimes-unpredictable Indian business landscape. Transitioning into 2022, the income statement reflects sustained revenue growth, emphasizing TechCraft's ability to maintain and expand its client base. The balance sheet signals strategic investments in research and development, indicating a forward-looking approach to technological innovation. Cash flow analysis reveals noteworthy net cash inflows from operating activities, illustrating operational efficiency and effective working capital management. Investing activities, primarily directed towards technology upgrades, demonstrate a commitment to staying at the forefront of the technology solutions market. Financing activities show a net outflow attributed to prudent debt repayments, ensuring financial stability and enhancing creditworthiness. This comprehensive analysis reveals a robust financial health for TechCraft Dynamics, aligning with its strategic focus on technological excellence and market leadership.

In a parallel trajectory, Innovate Consulta undergoes a holistic financial analysis, covering the income statement, balance sheet, and cash flow. In 2021, the income statement illustrates successful revenue generation, showcasing the company's expertise in delivering impactful consultancy services tailored for the Indian business environment. This isn't just revenue; it signifies the ability to secure high-value consulting projects and deliver tangible value for clients. The balance sheet portrays a favorable financial position, emphasizing effective asset management and intellectual capital utilization. The liquidity assessment reaffirms its capacity to meet short-term obligations, crucial for maintaining client trust and ensuring operational fluidity. As we transition into 2022, the income statement reflects sustained revenue growth, indicating Innovate Consulta's success in sustaining and expanding its consulting portfolio. The balance sheet signifies strategic investments in talent and technology, showcasing a proactive approach to enhancing service delivery. Cash flow analysis reveals robust net cash inflows from operating activities, indicative of continued success in delivering value-driven consulting solutions in the Indian market. Investing activities, primarily directed towards talent acquisition and technology enhancements, contribute to a significant cash outflow, aligning with the company's focus on maintaining a competitive edge. Financing activities witness a net outflow due to debt repayments, reflecting a commitment to prudent financial management. The comprehensive assessment unveils Innovate Consulta's robust financial standing, aligning with its strategic emphasis on service excellence and adaptability to the evolving needs of Indian businesses. The amalgamation of theoretical financial concepts, including Free Cash Flow and liquidity assessments, acts as guiding pillars, providing profound insights into the financial health of TechCraft Dynamics and Innovate Consulta. The assessments reveal strong financial positions for both companies, showcasing their abilities to generate positive cash flows, meet short-term obligations, and strategically position themselves in the market. Additionally, the examination of the Financing Activities section exposes strategic financial maneuvers, such as equity issuances and debt repayments. These actions play a pivotal role in supporting the growth objectives of both companies within the dynamic and evolving Indian market.

**Questions:**

1. Considering the synthesis of income statement, balance sheet, and cash flow analyses, compare and contrast the strategic investments made by TechCraft Dynamics and Innovate Consulta in 2021 and 2022. How do these investments contribute to their unique competitive advantages within the Indian business landscape?
2. In the context of the specific challenges and opportunities presented by the Indian market, discuss how the comprehensive financial analysis, incorporating income statement, balance sheet, and cash flow dynamics, reveals the alignment of TechCraft Dynamics and Innovate Consulta with their respective strategic objectives, as outlined in the passage?
3. Examine the role of theoretical financial concepts, such as Free Cash Flow and liquidity assessments, within the integrated analysis of income statement, balance sheet, and cash flow. How do these concepts provide nuanced insights into the financial health of TechCraft Dynamics and Innovate Consulta within the unique context of the Indian business environment?

4. Within the dynamic and evolving Indian market, analyze the potential impact of the differences in net cash outflows in the Financing Activities section for both TechCraft Dynamics and Innovate Consulta on their future financial flexibility and growth prospects, considering the synthesized insights from income statement, balance sheet, and cash flow analyses?

(CO2) [Application]

## 12. Case Study: Pyramid Innovations - Navigating Financial Horizons in the Indian Techscape (2022-2023)

In the ever-evolving landscape of the Indian technology sector, Pyramid Innovations faced dynamic challenges during the fiscal years 2022 and 2023. As the company embraced technological advancements and responded to changing revenue dynamics, various financial metrics were crucial in assessing its performance.

In 2022, Pyramid Innovations' current assets amounted to ₹180 million, with current liabilities standing at ₹120 million. In 2023, the current assets rose to ₹220 million, while current liabilities amounted to ₹150 million. Moving to solvency, in 2022, Pyramid Innovations' total debt stood at ₹80 million, with shareholders' equity at ₹200 million. In 2023, the total debt increased to ₹100 million, with shareholders' equity reaching ₹230 million. Exploring efficiency ratios, including inventory turnover and receivables turnover, in 2022, inventory turnover derived from a cost of goods sold of ₹120 million and an average inventory of ₹30 million. In 2023, the inventory turnover decreased, with a cost of goods sold of ₹150 million and an average inventory of ₹40 million. Receivables turnover in 2022 was derived from net sales of ₹200 million and average receivables of ₹50 million, while in 2023, with net sales of ₹230 million and average receivables of ₹60 million.

Lastly, the return on equity (ROE) is examined for both 2022 and 2023. In 2022, the net income was ₹40 million, with average shareholders' equity at ₹190 million. In 2023, the net income increased to ₹50 million, and average shareholders' equity reached ₹210 million.

### Questions:

1. How has the company managed its short-term obligations amidst changing revenue dynamics, as reflected in the current ratio, in 2022 and 2023?
2. How has Pyramid Innovations balanced its capital structure amid technological advancements, as indicated by the debt-to-equity ratio in 2022 and 2023? Provide insights into what is considered an optimal or balanced capital structure in the context of the company's operations and industry norms.
3. How effectively has Pyramid Innovations optimized its development processes, considering the impact of changes in inventory turnover and receivables turnover from 2022 to 2023?
4. What insights does the return on equity (ROE) offer regarding shareholder value in the tech sector for Pyramid Innovations in 2022 and 2023?

(CO3) [Application]