

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, May 2023

Course: Strategic Analytics

Program: MBA S&C

Course Code: STGM7005

Semester:II

Time: 03 hrs

Max Marks: 100

SECTION A
10Qx2M=20Marks

S. No.		Marks	CO
1	<p>1. Which of the following is a data quality issue?</p> <ul style="list-style-type: none">a. Incomplete datab. Inconsistent datac. Incorrect datad. All of the above	[2]	CO1
2	<p>1. Which of the following is not a benefit of data governance?</p> <ul style="list-style-type: none">a. Improved data quality and accuracyb. Reduced risk of data breaches and regulatory compliance violationsc. Increased productivity of data usersd. Decreased importance of data privacy and security	[2]	CO1
3	<p>What is the purpose of data profiling?</p> <ul style="list-style-type: none">a. To identify patterns and trends in datab. To determine the quality and completeness of datac. To analyze data for insights and predictionsd. To visualize data using charts and graphs	[2]	CO1
4	<p>What is the primary benefit of using Excel's Conditional Formatting feature in a dashboard?</p> <ul style="list-style-type: none">a. It allows you to highlight data based on specific conditions or criteriab. It enables you to create complex formulas and calculationsc. It provides a way to store and organize data more	[2]	CO1

	<p>efficiently</p> <p>d. It improves the visual design and aesthetics of your dashboard</p>		
5	<p>What is the primary benefit of using customer segmentation in marketing analytics?</p> <p>a. It enables marketers to target specific groups of customers with tailored messages and offers</p> <p>b. It simplifies the process of creating reports and presentations</p> <p>c. It eliminates the need for human analysts and decision-makers</p> <p>d. It provides a platform for collaboration and communication among team members</p>	[2]	CO1
6	<p>1. Which of the following code snippets is incorrect when trying to filter rows in a Pandas DataFrame based on a condition?</p> <p>a. <code>df[df['column'] > 0]</code></p> <p>b. <code>df[df['column'].isin(['A', 'B', 'C'])]</code></p> <p>c. <code>df[df['column'].str.contains('pattern')]</code></p> <p>d. <code>df[df['column'] == None]</code></p>	[2]	CO1
7	<p>Which of the following is not a common data governance challenge?</p> <p>a. Lack of data quality</p> <p>b. Inadequate data security and privacy measures</p> <p>c. Insufficient data visualization capabilities</p> <p>d. Lack of data standardization and consistency</p>	[2]	CO1
8	<p>Which of the following code snippets is incorrect when trying to read a CSV file into a Pandas DataFrame?</p> <p>a. <code>pd.read_csv('data.csv')</code></p> <p>b. <code>pd.read_csv('data.csv', sep='\t')</code></p> <p>c. <code>pd.read_csv('data.csv', header=None)</code></p> <p>d. <code>pd.read_csv('data.csv', skiprows=[1,3,5])</code></p>	[2]	CO1

9	<p>What is the <i>primary</i> difference between a metric and a KPI?</p> <p>a. Metrics are used for long-term performance tracking while KPIs are used for short-term performance tracking</p> <p>b. Metrics are used to measure business outcomes while KPIs are used to measure business processes</p> <p>c. KPIs are used to measure progress towards achieving specific goals while metrics are used to measure performance overall</p> <p>d. There is no difference between a metric and a KPI</p>	[2]	CO1
10	<p>What is the primary benefit of using data analytics in operations management?</p> <p>a. Improved customer satisfaction</p> <p>b. Increased revenue</p> <p>c. Reduced operational costs</p> <p>d. Enhanced employee productivity</p>	[2]	CO1
SECTION B 4Qx5M= 20 Marks			
Q11	<p>Explain the business analytics lifecycle and how it can be used to improve decision-making in organizations.</p>	[5]	CO3
Q12	<p>Discuss the importance of business analytics?</p>	[5]	CO2
Q13	<p>What is business forecasting? Write a detailed note on the various methods of business forecasting</p>	[5]	CO2
Q14	<p>Write detailed note on the features and methods of time series analysis.</p>	[5]	CO3
SECTION-C 3Qx10M=30 Marks			
Q15	<p>Discuss the role of business analytics in driving innovation and competitive advantage in organizations. Provide examples of how businesses have successfully leveraged analytics to gain a competitive edge.</p>	[10]	CO2
Q16	<p>Why finding standard error is important for proper analysis of data. Explain by citing examples</p>	[10]	CO3

Q17	Discuss Importance of Index numbers in managerial decision making.	[10]	CO2
SECTION-D 2Qx15M= 30 Marks Case study			
	<p>ShopTrend is a mid-sized e-commerce company founded in 2010, operating in North America. The company has a diverse product offering that includes electronics, fashion, home goods, and more. ShopTrend has experienced steady growth since its inception and currently holds a 5% market share in the e-commerce industry. However, it faces intense competition from giants like Amazon, Walmart, and Target.</p> <p>Problem Statement: The primary objective of this case study is to analyze the current business situation of ShopTrend and provide strategic recommendations to boost its market share in the e-commerce industry. The focus should be on using analytics to identify market trends, customer preferences, and potential growth areas to formulate an effective strategy.</p> <p>Case information:</p> <ol style="list-style-type: none"> Top three product categories by sales in the last year were electronics (40%), fashion (35%), and home goods (25%). The average profit margin for electronics was 15%, fashion 40%, and home goods 30%. ShopTrend's advertising expenditure grew by 20% year on year. Competitors' market shares are Amazon (40%), Walmart (25%), and Target (15%). <p>Client Requirement: ShopTrend wants to position itself for sustainable growth and regain its competitive edge in the industry. While the road ahead will not be easy, with the right strategy and execution, the company is certain it can overcome the current challenges it faces and emerge stronger than ever before. They have reached out to your team to analyze the company's operations, correlate with current market conditions and make strategic recommendations accordingly.</p>		
Q18	Based on the information provided about the top product categories, their sales percentages, and profit margins, suggest which product categories should be prioritized for future growth. Given the competitive landscape, identify potential opportunities for ShopTrend to differentiate itself from the competition and gain a competitive advantage. Keep in mind that this has to be analytics-driven, and not just general recommendations.	[15]	CO4
Q19	Assess the effectiveness of ShopTrend's advertising expenditure increase in the last year. Recommend	15	CO4

	improvements to the current advertising strategy to maximize return on investment. Again, this has to be from an analytics-driven standpoint.		
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