GALGOTIAS UNIVERSITY

ADMISSION NUMBER

School of Business

Bachelor of Business Administration
Semester End Examination - Jun 2024

Duration : 180 Minutes
Max Marks : 100

Sem II - D1UA208B - E2UC220C - IT Tools for Decision Making

General Instructions
Answer to the specific question asked
Draw neat, labelled diagrams wherever necessary
Approved data hand books are allowed subject to verification by the Invigilator

1)	Explain the concept of data storage in RAM and ROM. How does the data stored in these memory types differ in terms of persistence and accessibility?	K2(4)
2)	Discuss the effectiveness of using statistical functions in MS Excel for data analysis compared to manual calculations.	K2(4)
3)	How does the GCD function differ from the LCM function? Determine the GCD of 24 and 36.	K5(5)
4)	Analyze the results obtained from the YEARFRAC and DATEDIF functions when calculating the difference between two given dates.	K2(6)
5)	Analyze the impact of adding or removing fields from different sections of a pivot table on the insights derived from the data.	K3(6)
6)	a) Highlight the importance of date and time functions in Excel for performing complex calculations and analysis. (3 marks) b) Choose any two date and time functions and explain their syntax, usage, and practical applications in financial analysis or project management. (5 marks)	K4(8)
7)	Scenario: Imagine you are a network engineer tasked with designing a communication infrastructure for a newly established multinational corporation. The company operates across multiple continents, requiring robust and reliable transmission media for its data transfer needs. Considering the nature of the business and the geographical spread, wired transmission media emerges as the most suitable option due to its stability and bandwidth capabilities. A) Identify three types of wired transmission media commonly used in networking infrastructures. 5Marks B) Explain the key differences between twisted pair cables and	K3(9)

coaxial cables in terms of their construction and bandwidth capabilities.4 Marks

8) Compare and contrast the capabilities of Pivot tables in spreadsheet applications with the querying capabilities of SQL for data analysis. Discuss scenarios where each tool would be more suitable and why K3(9)

9) Scenario: K5(10)

Imagine you're a database administrator for a multinational e-commerce company that deals with a vast array of products and services. The company's database has been operational for several years, but lately, there have been performance issues reported by users. Upon investigation, you discover that the database design might be the root cause.

Question:

As the database administrator, how would you approach optimizing the performance of the database system? Outline the steps you would take, starting from analyzing the current database design to implementing necessary changes

10) You are a consultant for a small manufacturing company that is considering upgrading their computer systems. The company specializes in custom-designed furniture, and their current system consists of outdated desktop computers with basic input/output devices such as keyboards, mice, and standard monitors. The management team is aware that technology plays a crucial role in improving efficiency and productivity but lacks a clear understanding of the significance of input/output devices in their operations. K4(12)

Your task is to prepare a presentation for the management team explaining the significance of input/output devices in a computer system, specifically tailored to their manufacturing business. Develop scenario-based questions to engage the team and help them grasp the importance of investing in advanced input/output devices.

Questions

a) Imagine you're managing the design department, and you've received a rush order for a new furniture design. How could high-quality input devices, such as ergonomic keyboards and precision mice, improve the speed and accuracy of your team's design process? (6)

b) As the production manager, you're responsible for overseeing the manufacturing floor. How might advanced output devices, like high-resolution monitors or touchscreen interfaces, enhance your

ability to monitor production processes in real-time and make informed decisions to optimize workflow? (6)

11) You are a data analyst working for a retail company. Your task involves analyzing sales data to identify trends and patterns that can help optimize inventory management and sales strategies. Utilizing MS Excel's mathematical and statistical functions is essential for your analysis. K4(12)

a) Identify and describe two additional important mathematical functions available in Excel.Present scenarios where each function would be valuable in conducting data analysis or making informed decisions within the retail industry.(6Marks)

b) Choose three basic statistical functions commonly used in Excel.Demonstrate how each function can be applied to analyze sales data, such as calculating averages, identifying outliers, or measuring variability within sales figures.(6Marks)

12) Scenario: K5(15)

TechSavvy Solutions, a medium-sized software development firm, experienced operational inefficiencies due to outdated computer systems. Frequent system crashes, slow processing speeds, and compatibility issues hindered productivity and impeded project deadlines. Recognizing the urgency to upgrade their infrastructure, the company's management initiated a comprehensive review of their computer system components.

Questions:

a. What criteria should TechSavvy Solutions consider when assessing the performance of their current computer systems?(4)
b. Identify the specific challenges or issues faced by TechSavvy Solutions due to outdated computer system components.(4)
c. Discuss the importance of selecting the appropriate CPU (Central Processing Unit) for TechSavvy Solutions' computing needs.(4)
d. How can TechSavvy Solutions ensure compatibility among various computer system components such as CPU, motherboard, and RAM?(3)