NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

FACULTY OF COMMERCE, HUMAN SCIENCES AND EDUCATION

DEPARTMENT OF GOVERNANCE & MANAGEMENT SCIENCES

QUALIFICATION : BACHELOR OF BUSINESS AND INFORMATION ADMINISTRATION	
QUALIFICATION CODE: 07BBIA	**LEVEL: 7**
COURSE CODE: BIS721S	**COURSE NAME**: BUSINESS INFORMATION SYSTEMS 3
SESSION: June 2025	**PAPER:** THEORY (PAPER 1)
DURATION: 2 HOURS	**MARKS:** 100

1st OPPORTUNITY EXAMINATION QUESTION PAPER	
EXAMINER:	**Prof. N. ANGULA**
MODERATOR:	Mr. Tuliameni Kanyemba

INSTRUCTIONS
1. Read all the questions carefully before answering. 2. Make sure your name and surname, question number and the date appears on the answer script. 3. Please ensure that your writing is legible, neat and presentable.

THIS QUESTION PAPER CONSISTS OF 6 PAGES (Including this front page)

Answer the following multiple-choice questions. Only write down the question number and the correct answer. E.g. 1.1 C

Section A: Multiple choice questions

1.1 In what ways does a peer-to-peer network facilitate file sharing and device access, such as printers, among multiple PCs without the requirement for a dedicated server or server software?

A Local area network
B A peer-to-peer network
C Wide area network
D Private area network

1.2 Which one is a client-server architecture function in a distributed application structure, where servers provide resources or services and clients request those services?"

A Client-Server Network
B Router
C Software
D Hardware

1.3 In what ways does the topology of a computer network affect its performance, scalability, and security?

A Network topology
B Computing system
C Information system
D Router

1.4 The process of routing ensure that data packets traveling across the Internet reach their correct destination, and what factors influence its efficiency is called:

A Hardware
B Motherboard
C Software
D Internet Protocol (IP)

1.4 A structured approach to system development and maintenance in information technology impact the efficiency, reliability, and long-term sustainability of the system is called:

A Intranet
B System Development Lifecycle (SDLC)
C Wide area network
D Private area network

1.6 The Waterfall methodology is the most traditional approach in the field of system development.

A Network architecture
B Networking
C SDLC
D Hardware

1.7 Which one is the iterative refinement of a prototype after each user evaluation contribute to meeting all user requirements in the prototyping method:

A Evolutionary prototyping
B Rapid throwaway prototyping
C Client/server architecture
D Prototyping

1.8 This is crucial as it effectively addresses the risk factors associated with the development process.

A Wi-Fi adapters
B Peer-to -peer network
C Networking
D The Spiral model

1.9 This methodology is similar to the spiral model, wherein a prototype is developed and tested, user feedback is gathered, and the product undergoes iterative refinement. However, unlike the spiral model, each iteration in this methodology is constrained by a defined time limit.

A Digital signals
B Scrum
C Media
D Internet Protocol (IP)

1.10 It gathers, processes, stores, analyzes, and distributes information to fulfill a particular objective.

A Waterfall methodology
B An information system
C V-shape methodology
D Rapid throwaway prototyping

[10 marks]

Section B: Structured questions **[90 Marks]**
Answer each of the following questions:

Questions 1

In a scenario where an organization needs to choose the most appropriate network type based on its size, geographical reach, and operational needs, how would you differentiate between LAN, WAN, MAN, and Enterprise Networks in terms of their structure, advantages, and limitations? **[10]**

Question 2

In a scenario where your company is evaluating its network infrastructure, how would you assess the current network architecture in use, and what factors led to its selection? Provide five reasons to justify your choice, considering aspects such as scalability, security, performance, and cost. **[10]**

Question 3

Imagine you are explaining the concept of network topology to a friend who has no prior knowledge of the term. How would you outline and discuss five key reasons or examples to help them understand the different types of network topologies and their importance in network design? **[10]**

Question 4

In a scenario where a company is deciding whether to embark on a new system development project, what are five key reasons that would motivate the decision to initiate the

development? Discuss each reason in detail, considering factors such as efficiency, market demands, technological advancements, and organizational goals. **[10]**

Question 5

In a scenario where a company is evaluating the components of its IT infrastructure, would you consider system development as part of the networking infrastructure? Justify your answer with five reasons, considering factors such as the relationship between system development and network performance, scalability, and integration.

[10]

Question 6

In a scenario where a company is evaluating its operational-level information systems, what are five key characteristics that define these systems? Discuss each characteristic in terms of how it contributes to daily operations, decision-making, and overall efficiency within the organization. **[10]**

Question 7

Imagine your company is considering implementing a Decision Support System (DSS) to enhance decision-making processes. What are five key components of a DSS, and how does each one contribute to supporting managers in making informed decisions? Discuss each component in detail, considering factors such as data collection, analysis, and user interaction.

[10]

Question 8

Imagine your organization is considering implementing a Group Decision Support System (GDSS) to address complex, unstructured problems involving multiple decision-makers. How would you elaborate on the definition of a GDSS and explain its operation, especially in the context of decision-makers working together either in the same location or remotely? Discuss how GDSS facilitates collaboration and decision-making in such scenarios.

[10]

Question 9

Imagine a company at different organizational levels (strategic, tactical, and operational) is looking to understand the roles of its information systems. What are five key roles that an information system plays at each of these levels? Discuss how each role contributes to decision-making, efficiency, and overall organizational goals at various levels of the company. **[10]**

[Section B Total Marks: 90]

End of examination

TOTAL: 100