



**NAMIBIA UNIVERSITY  
OF SCIENCE AND TECHNOLOGY**

**Faculty of Computing & Informatics**

Informatics Department

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| <b>QUALIFICATION : BACHELOR OF INFORMATICS</b>             |                             |
| <b>QUALIFICATION CODE: 07BAIT</b>                          | <b>LEVEL: 7</b>             |
| <b>COURSE: INFORMATION SYSTEMS STRATEGY AND GOVERNANCE</b> | <b>COURSE CODE: ISG711S</b> |
| <b>DATE: June 2025</b>                                     | <b>SESSION: 1</b>           |
| <b>DURATION: 3 HOURS</b>                                   | <b>MARKS: 100</b>           |

| <b>FIRST OPPORTUNITY EXAMINATION QUESTION PAPER</b> |  |
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| <b>EXAMINER(S)</b>                                  | Prof Suama L Hamunyela<br>Dr Elizabeth Ujarura Kamutuezu |
| <b>MODERATOR:</b>                                   | Ms Helena Nahum  |

**THIS QUESTION PAPER CONSISTS OF 4 PAGES**

(Excluding this front page)

**Instructions for the candidate**

1. Answer **ALL** questions where applicable.
2. When writing take the following into account: The style should inform than impress, it should be formal, in third person, paragraphs set out according to ideas or issues and the paragraphs flowing in a logical order.
3. Information should be brief and accurate.
4. Please ensure that your writing is **legible, neat and presentable**.

SECTION A

[50 MARKS]

QUESTION 1

[20 MARKS]

*Answer all Multiple-choice questions. Each question carries 2 marks.*

- 1.1 Porter's five forces model aims to achieve.
- A. A new marketing strategy
  - B. An external analysis of competition
  - C. An internal shift of human resources
  - D. A review of supply chain management
- 1.2 According to Porter, which of the following is important to achieve a competitive advantage?
- A. Differentiation and Cost Advantage
  - B. Outsourcing activities
  - C. Increase the salaries of the staff
  - D. Having a strong relationship with buyers and sellers
- 1.3 Which of the following is the MAIN objective of governance of enterprise IT?
- A. Obtain funding for current and future IT projects
  - B. Take advantage of the latest technology
  - C. Optimize the use of available IT resources
  - D. Use technology to support business needs
- 1.4 The Primary role of IT during the formation of Era VI 2100+ is about:
- A. Strategic
  - B. Effectiveness
  - C. Value Creation
  - D. Efficiency
- 1.7 Which of the following statements is the best description to perform risk management?
- A. Identify and manage vulnerabilities that may permit security events to occur
  - B. Identify and address threats that are relevant to the organisation
  - C. Assess the risks associated with third-party service providers
  - D. Assess and manage risks associated with doing business online
- 1.8 What is the purpose of ITIL in IS governance?
- A. Programming practices
  - B. IT service management best practices
  - C. Recruitment standards
  - D. Hardware selection

1.9 The Chief Information Officer of a multinational corporation is considering storing customer data on an overseas cloud service provider. When making this decision, which of the following should be the MOST crucial factor to consider?

- A. Compliance with applicable legislation
- B. The tendency of natural disasters
- C. Roles and duties in IT service delivery
- D. The reputation of the cloud service provider

1.10 Which of the following is NOT a common domain of IT governance under COBIT?

- A. Evaluation, Direct and Monitor
- B. Align, Plan and Organize
- C. Build, Acquire and Implement
- D. Market, Brand and Advertise

**SECTION B Short Answer Questions**

**[30 MARKS]**

*Answer all questions. Each question carries 10 marks.*

1. Define IT governance and explain two challenges and benefits of strategic Alignment. (10 marks)
2. Discuss five (5) Components of IT Governance. (10 marks)
3. Elaborate how Michael Porter's Five Forces Model helps analyse the competitive dynamics of an industry how Information Technology (IT) can be leveraged to create a winning position for a local restaurant. (10 marks)

**SECTION C: Long Answer / Essay Questions**

**[50 MARKS]**

*Case Study 1 - AlphaMed Services* is a healthcare organization that recently migrated a large portion of its IT infrastructure to a cloud-based environment, including patient data systems and internal communication platforms. To improve operational efficiency, it adopted ITIL-based service management practices. However, during a recent internal audit, several issues were flagged:

- Inconsistent implementation of access controls across cloud and on-premises systems.
- Inadequate documentation for changing management procedures.
- No clear policy for managing virtual machines (VMs) and monitoring their lifecycle.
- Wireless network access points lacked proper encryption settings.

- System logs were not reviewed regularly by IT operations staff.

Based on the case study above, answer the following:

1. How can alignment between business and IT be achieved at AlphaMed? (10 marks)
2. Critically evaluate the role of IT governance frameworks (such as COBIT, COSO, ITIL, and ISO/IEC 27001, CCM) in aligning IT with business strategy. (10 marks)
3. Discuss ITIL service management benefits. (10 marks)
4. List and discuss four (4) steps in the effective enterprise risk management process. (10 marks)
5. The Capability Maturity Model Integration (CMMI) framework is primarily associated with process improvement and capability maturity in various domains. Discuss the five (5) maturity levels and its characteristics. (10 marks)

**END OF EXAMINATION**