| QUALIFICATION: **BACHELOR OF HEALTH INFORMATION SYSTEMS MANAGEMENT** | |
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| QUALIFICATION CODE:  **07BSHM** | LEVEL: **5** |
| COURSE: **FOUNDATIONS OF HEALTH INFORMATION MANAGEMENT** | COURSE CODE: **FOH521S** |
| DATE:  **NOVEMBER 2024** | SESSION: **1** |
| DURATION:  **3 HOURS** | MARKS: **100** |

## FIRST OPPORTUNITY EXAMINATION: QUESTION PAPER

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| **EXAMINER:** | **MS. SINTE MUTELO** |
| **MODERATOR:** | **MS. ELIZABETH NDAKUKAMO-KASINO** |

### INSTRUCTIONS

1. Answer all questions on the separate answer sheet.
2. Please write neatly and legibly.
3. Do not use the left side margin of the exam paper.  This must be allowed for the examiner.
4. No books, notes and other additional aids are allowed.
5. Mark all answers clearly with their respective question numbers.
6. Answer each question section on a new page.

### PERMISSIBLE MATERIALS

1. None

### ATTACHMENTS

None

**This question paper consists of 6 pages including this front page.**

**QUESTION 1: MULTIPLE CHOICE QUESTIONS** **[10 MARKS]**

1. Evaluate the statements in each numbered section and select the most appropriate answer or phrase from the given possibilities. Fill in the appropriate letter next to the number of the correct statement/phrase on your ANSWER SHEET. One (1) mark each question [10]

1.1 A portable method of storage of health data is known as: [1]
    a. e-medicine
    b. Smart card
    c. e-health
    d. e-care

1.2 ............................. is the most important program that runs a computer or mobile. [1]
    a. Software
    b. Operating system
    c. Information system
    d. Hardware

1.3 A computer is an electronic device that consists of: [1]
    a. Hardware
    b. People
    c. Internet
    d. Information

1.4 ..........................refers primarily to the organization's computer networks and, perhaps, to the applications running on those networks. [1]
    a. Platform
    b. Architecture
    c. Infrastructure
    d. Strategies

1.5 An ............... management model includes tasks associated with a broad range of information services. [1]
    a. Information oriented
    b. Health information
    c. Information system
    d. Task management

1.6 The .............. assists patients in managing their personal health information. [1]
    a. Health information manager
    b. Clinical data specialist
    c. Patient information coordinator
    d. Database administrator

1.7 Many believe the greatest advantage of telehealth is the elimination of: [1]
    a. Travel
    b. Time
    c. Cost increase
    d. Treatment

1.8 A ............................. provides the ability to perform the functions such as create, modify,

delete, and view patient data. [1]
  a. Database
  b. Database management systems
  c. Structured Query Language
  d. Hospital information system

1.9 The data ………….. is a central building block that supports communication across business processes. [1]
  a. Dictionary
  b. Mining
  c. Warehouse
  d. Models

1.10 Physicians use specialised computer systems called …… to help them make decisions about patient care. [1]
  a. Management information systems (MIS)
  b. Pharmaceutical information systems (PIS)
  c. Decision support systems (DSS)
  d. Transaction Systems

**QUESTION 2: TRUE/FALSE QUESTIONS** **[10 MARKS]**

2. Evaluate the statements and select whether the statement is true or false. Write the word 'True' or 'False' next to the corresponding number on your ANSWER SHEET. Each answer earns one (1) mark.
[10]

2.1 The most critical resource in healthcare is patient data. [1]

2.2 The data quality manager is responsible for data management functions that involve. [1]

2.3 Most databases use structured query language (SQL) for writing and querying data. [1]

2.4 The traditional model of practice is department focused. [1]

2.5 Lack of a sound data dictionary does not cause problems within and across organizations. [1]

2.6 Computers comprise a major portion of an organization's Information System (IS). [1]

2.7 Data errors are often discussed in terms of two types of underlying causes; systematic errors and random errors. [1]

2.8 Systematic healthcare data errors have nothing to do with unclear data definitions or a failure to comply with the established data collection protocols. [1]

2.9 Data Integrity is the "extent to which healthcare data are complete, accurate, consistent, and timely. [1]

2.10 Confidentiality refers to a person's desire to limit the disclosure of personal information. [1]

**QUESTION 3** [60]

3. Please answer ALL the questions in this section.

3.1 Define the following Terminologies with examples: [10]

      3.1.1 Data [2]
      3.1.2 Information [2]
      3.1.3 Information Technology (IT) [2]
      3.1.4 Structured Query Language (SQL) [2]
      3.1.5 Database [2]

3.2 List five (5) of the roles of Health information management professionals in electronic health information system. [5]

3.3 Discuss the components of an information systems. [5]

3.4 Identify the basic function of an operating system (OS). [5]

3.5 A database can simply be mistaken for an Excel sheet, these can all be used to store health information. Discuss the difference between a database and a spreadsheet. [4]

3.6 Interpret application program, and give two examples: [4]

3.7 Criticize the importance of database software in managing health information healthcare? [2]

3.8 State any three (3) database approaches. [4]

3.9 Analyse Health Level Seven (HL7)and state its purpose? [3]

3.10 Examine the importance of medical standards like Health Level 7. [5]

3.11 Explain the different types of networks an organisation uses
During communication, moving data, and from one computer to another. [6]

3.12 What is a communication device? [2]

1.13 Healthcare data are the source of healthcare information. So, it stands to
Reason that a healthcare organization cannot have high quality healthcare
information without first establishing that it has high-quality healthcare data.
List the characteristics of the Quality of Data. [5]

**QUESTION 4** [20]

4. Answer all questions:

**Read the article Health information systems in Namibia and answer the questions below:**

A country's health information system (HIS) integrates data from civil/vital registration, censuses, population surveys, facility surveys, individual records, service records and administrative records for policymaking and efficient management of healthcare services. The goal of any HIS is to produce quality and timely information for evidence-based decisions and interventions. HISs in developing countries, including Namibia, have been said to be weak (Kamau et al., 2017; Khan and Edwards, 2012; World Bank, 2009). Haoses-Gorases (2005) observed that the organisational structure of Namibia's National Health Information System (NHIS) was fragmented across different directorates and institutions. The World Bank (2009) reported about incomplete and fragmented data sources, which created a challenge of bringing diverse data sources into a seamless system.

4.1 Discuss in a paragraph, what knowledge, skills, and techniques, innovative solutions would you bring to Namibia' Health information systems that are said to be weak with your graduate attributes of HISM five years from now. [10]

4.2 Despite the offered solutions and techniques HIM department should be aware of threats to computer systems. List steps organisation should take to protect data and systems. [10]

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**END OF QUESTION PAPER**