NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Faculty of Health, Natural Resources and Applied Sciences

School of Health Sciences

Department of Preventative Health Sciences

13 Jackson Kaujeua Street
Private Bag 13388
Windhoek
NAMIBIA

T: +264 61 207 2970
F: +264 61 207 9970
E: dphs@nust.na
W: www.nust.na

QUALIFICATION : **BACHELOR OF HEALTH INFORMATION SYSTEMS MANAGEMENT**	
QUALIFICATION CODE: **07BSHM**	LEVEL: **5**
COURSE: **FOUNDATION OF HEALTH INFORMATION MANAGEMENT**	COURSE CODE: **FOH521S**
DATE: **JANUARY 2025**	SESSION: **2**
DURATION: **3 HOURS**	MARKS: **100**

SECOND OPPORTUNITY / SUPPLEMENTARY: EXAMINATION QUESTION PAPER

EXAMINER: **MS. SINTE MUTELO**

MODERATOR: **MS. ELIZABETH NDAKUKAMO**

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 on new page.

PERMISSIBLE MATERIALS

1. None

ATTACHMENTS

1. None

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

SECTION A: MULTIPLE CHOICE AND TRUE / FALSE [20 MARKS]

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. Each answer earns one (1) mark. [10]

1.1 The traditional model of HIM practice is considered: [1]

a. Information based
b. Computerised based
c. Department based
d. Information based

1.2 The most important functions of any healthcare information system involve being able to create, modify, delete, and view patient data. The most important storage mechanism used to perform these functions is a database. [1]

a. Information system
b. Database
c. Electronic Health Records
d. Warehouse

1.3 ..... refers to the measure that organisations implement to protect information systems. [1]

a. Confidentiality
b. Security
c. Privacy
d. Integrity

1.4 Which term refers to how easy it is to obtain the information? [1]

a. Verifiable
b. Timely
c. Accurate
d. Accessible

1.5 What are the components of an information system? [1]

a. Computer servers, networks, and wiring along with personal computers
b. A combination of hardware, software, and communications technology
c. Data, people, and processes and a combination of hardware, software, and communications technology
d. Collecting, maintaining, analysing, and disseminating information

1.6 What is the difference between data and information? [1]

a. Data are composed of numbers, and information is composed of words.
b. Data represents raw facts and figures, and information represents the meaningful interpretation of data.
c. There is no difference between data and information.
d. All of the above.

1.7 The coming together of information systems is guided by information systems ..... [1]

a. Developers
b. Designers
c. Architecture
d. Concepts

1.8 HL7 provided standards for interoperability that improves these except for: [1]

a. Enhanced knowledge
b. Reduced ambiguity
c. Care delivery
d. Design architecture

1.9 A ..... is a string of characters. [1]

a. Field
b. Attribute
c. Row
d. Column

1.10 Another way of looking at IS architecture is to look at how ..... are integrated across the organization. [1]

a. Applications
b. Hardware
c. Platforms
d. Software

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 IT systems alone have been shown to improve data accessibility and legibility. [1]

2.2 One of the key roles of health information managers is to ensure the privacy and security of patient health information. [1]

2.3 Data currency refers to the availability of medical information such as critical lab values promptly. [1]

2.4 Database is a collection of data elements organised in a manner that allows efficient retrieval of information. [1]

2.5 HIS contributes to a high quality of patient care and medical research. [1]

2.6 In addition to knowing the basic structure of an electronic information system and how it is applied to the healthcare environment, HITs must also understand the language of IS. Reliable sources of information are usually verifiable and accurate. [1]

2.7 For the healthcare industry to embrace HISM, it does not professionals who understand both IT and health informatics aspects. [1]

2.8 Health information management professionals do not need to stay updated on changes in healthcare regulations and compliance standards. [1]

2.9 HL7 standards categories these messages according to their purpose in different HL7 systems. [1]

2.10 Another way of looking at information systems architecture is to look at how applications are integrated across the organization. [1]

SECTION B: SHORT / LONG ANSWER QUESTIONS [37 MARKS]

QUESTION 3 **[37]**

3. Answer ALL of the questions in this section.

3.1 Define with an for example Health Information system(HIS)? [2]

3.2 Explain why the traditional model of practice in the HIM department is not appropriate today? [2]

3.3 Discuss any five (5) functions HIM department professionals perform. [5]

3.4 Describe the two (2) major types of systems in healthcare. [2]

3.5 Recognize the two (2) major elements of a computer system. [2]

3.6 Clarify the benefits of electronic databases in managing information in healthcare. [10]

3.7 Examine the purposes of the following systems in Information Systems (IS) within the Health Information Management (HIM) department: transaction systems, management systems, decision support systems, and expert systems. [4]

3.8 According to the American Health Information Management Association (AHIMA), Data Quality Management Model (DQMM), data must meet 10 characteristics to be considered quality data. Name these characteristics. [10]

SECTION C: SHORT / LONG ANSWER QUESTIONS [43 MARKS]

QUESTION 4 **[43]**

4. Answer ALL of the questions in this section.

4.1 Information systems must be created logically. The System Development Life Cycle (SDLC) is a traditional approach used to plan and implement an IS in an organisation. Demonstrate what occurs in each phase of the SDLC. [10]

4.2 Summarise the five (5) major concerns that can arise in conjunction with electronically stored data on HIS, on the internet or on personal computers. [5]

4.3 As a newly appointed HIM expert in the Ministry of Health and Social Services (MoHSS), you have been assigned as Project Lead to assist in acquiring a Health Information System (HIS). During the project, a debate arose among the team about the five (5) categories of HIS. As the Project Lead, clarify these five (5)

categories along with their characteristics. [10]

4.4 From all HIM professions discussed during FOH521S, which one do you plan to follow and why? How do you plan apply your expertise to mitigate the challenges faced by the Namibia's health sector in line with the profession you chose? [10]

4.5 As an Informatics expert with the knowledge of Health Level 7 construct a diagram for the HL7 Communication during Patient Lab Test Scenario. [8]

END OF QUESTION PAPER