NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

FACULTY OF HEALTH AND APPLIED SCIENCES

DEPARTMENT OF HEALTH SCIENCES

QUALIFICATION: BACHELOR OF HEALTH INFORMATON SYSTEMS MANAGEMENT	
QUALIFICATION CODE: 07BHIS	LEVEL: 6
COURSE CODE: HIT611S	COURSE NAME: HEALTH INFORMATION TECHNOLOGY
SESSION: JUNE 2019	PAPER: THEORY
DURATION: 3 HOURS	MARKS: 100

FIRST OPPORTUNITY EXAMINATION QUESTION PAPER	
EXAMINER(S)	Ms Sinte Mutelo
MODERATOR:	Dr Suama Hamunyela

INSTRUCTIONS
1. Answer ALL the questions. 2. Write clearly and neatly. 3. Number the answers clearly.

PERMISSIBLE MATERIALS

1. pen
2. pencil
3. eraser

THIS QUESTION PAPER CONSISTS OF 7 PAGES (Including this front page)

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

1.1.   .... system enable a hospital to gather and manage data from across a health system

providing administrators with consolidated data to evaluate operations by a variety of

measures.

[1]

   a) MIS

   b) Expert system

   c) Enterprise wide- system

   d) Financial systems

1.2.   The traditional model of HIM practice before computers was......   [1]

   a) Department based

   b) Information based

   c) Electronically based

   d) Analytically based

1.3.   Which of the following is the new model of HIM practice?   [1]

   a) Information focused

   b) Record focused

   c) Department focused

   d) Traditionally focused

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

   a) Data are composed of numbers, and information is composed of words.

   b) Data represent raw data, and information represents the meaningful

       interpretation of data.

   c) There is no difference between data and information.

   d)   All of the above.

1.5.   End-user requirements are identified in the _____ phase of the SDLC.   [1]

   a) Design

   b) Analysis

   c) Implementation

   d) Maintenance

1.6. Testing the new IS system is part of the _____ phase. [1]

    a) Design

    b) Planning and analysis

    c) Implementation

    d) Maintenance

1.7. Type of network that allows the networks of separate organizations to communicate with one another. [1]

    a) Internet

    b) Intranet

    c) Extranet

    d) Servers

1.8. Which of the following systems would be an intermediate step toward the EHR? [1]

    a) Digital dictation

    b) Multi-professional care pathways

    c) Electronic document management system

    d) Point-of-care documentation

1.9. In which scenario from the below should an executive decision support system used? [1]

    a) To develop the nursing schedule

    b) To order food and other supplies for the cafeteria

    c) To identify a new service for the hospital to implement

    d) To prepare for hospital accreditation

1.10. Which of the following is the format addressing Information resource management? [1]

    a) Information stored electronically

    b) Information stored on paper

    c) Information stored in both electronic and paper formats

    d) Information stored in any format

QUESTION 2: TRUE or FALSE   **[10]**

Write TRUE OR FALSE answer in the answer book provided

2.1.   The increasing use of computers and automation in healthcare delivery is one of the

      key trend of health informatics.   [1]

2.2.   Data can be considered raw facts that with meaning.   [1]

2.3.   Knowledge is built from information with no data involved.   [1]

2.4.   Health information management (HIM) business processes, such as transcription and

      coding, use the Internet for on-site transaction processing.   [1]

2.5.   The HIM professional must identify and address risks for medical identity theft as

      more and more information that is patient is exchanged electronically.   [1]

2.6.   Implementing an EHR is a clinical transformation; it truly changes how clinicians think

      and act-indeed, how they practice medicine.   [1]

2.7.   Ensuring data availability means making sure the organization can depend on the

      information system to perform exactly as expected, without error, and to provide

      information when and where it is needed.   [1]

2.8.   The goal of the health record is to ensure that accurate information is available to

      authorised users to support quality patient care.   [1]

2.9.   A DSS provides information to help users make accurate decisions.   [1]

2.10.   Computer networks consist of a configuration of cables, data, information, computers,

      and other devices.   [1]

QUESTION 3: SHORT ANSWER QUESTIONS [40]

3.1.   Define the following terminologies [10]

        a) Data mining

        b) Healthcare

        c) A computer

        d) Telecommunications

        e) Health information technology (HIT)

3.2.   Health information technology (HIT) Databases are the backbone of an EHR, backbone of an EHR; careful attention must be given to ensure that data stored in a database have the data quality characteristics. LIST **ten (10)** data quality characteristics.   [10]

3.5.   Discus how cloud computing as a trending can be used in health sector   [5]

3.4.   Differentiate Expert system form knowledge management system   [6]

3.5.   List and describe all six (6) components of information system (IS)   [5]

3.6.   Which functions of HIM concern health information of a patient?   [4]

QUESTION 4: CASE STUDY [40]

A case study of transformation to a Centralized HIM Record Archival and Electronic Document Management Systems (EDMS) Processing Centre in a Multihospital Network.

Prince Health Partners in Northwest Transvaal decided to implement an electronic document management system on their migration to the electronic health record. They wanted a system that would fit into their long-term information system strategic plan. They also wanted the support from physicians and other staff. The first phase focused on the storage of the paper record as well as other administration records. A consulting firm was hired to assist in the system selection process, and the decision was made to centralize the document management system for three of the hospitals in their system. A number of challenges were identified, including:

- Increased volume of paper
- Storage of paper records in about 40 different locations
- Increased patient load
- Inability to locate records

Questions:

4.1.   Critically discuss why the Prince Health Partners decided on an EDMS. [5]

4.2.   Why do you think the above challenges exit within this process? [5]

4.3.   The system selected is expected to improve efficiency, reduce costs, and protect the records. Explain how these benefits can be achieved after this implementation? [5]

4.4.   After the implementation is EDMS, the firm realised that their document storage space is open. Advice the firm how this space can be utilised within HIM to achieve best patient service delivery. [5]

4.5.   Telecommunication is one component of information systems via for media

healthcare organisation allowing multiple users haring resources and information.[10]

4.6.   Discuss how the following element of security programme should be considered   after

EDMS implementation.   [10]

a) protecting the privacy of data,

b) ensuring the integrity of data and

c) ensuring the availability of data.

-END OF EXAMS-