nAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

FACULTY OF HEALTH, APPLIED SCIENCES AND NATURAL RESOURCES
Department Name: HEALTH SCIENCES

QUALIFICATION : BACHELOR OF SCIENCE IN HEALTH INFORMATION SYSTEMS MANAGEMENT	
QUALIFICATION CODE: 07BHIS	LEVEL: 6
COURSE: INTRODUCTION TO HEALTH INFORMATICS	COURSE CODE: HIT611S
DATE: JULY 2022	SESSION: JULY 2022
DURATION: 3HRS	MARKS: 100

SECOND OPPORTUNITY / SUPPLEMENTARY EXAMINATION QUESTION PAPER	
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MODERATOR:	Ms Sinte Mutelo

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

INSTRUCTIONS:

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

PERMISSIBLE MATERIALS:

1. Examination paper.
2. Examination script.

Section A MULTIPLE CHOICE [20]
Write only the correct letter of your choice in the answer book. *(2marks per correct answer)*

1. An information system is …

   a) A collection of related components that interact to perform a task to accomplish a goal
   b) The integration of several elements in a business process to affect a specific outcome
   c) A process that refines raw facts into meaningful information
   d) All the above

2. Which of the following is an example of a primary purpose of the medical record?

   a) Education
   b) Policy making
   c) Research
   d) Patient care

3. A clinical data warehouse is:
   a) Storage device
   b) Database for online analytical processing
   c) EHR
   d) Company that stores paper records

3. What elements of a security program could help prevent system or access errors from occurring:

   a) Extranet
   b) Broadband
   c) Protecting the privacy of data
   d) Security

4. A university such as NUST has different type of Networks available for students. Which of the following enhances your mobility?
   a) Local area network
   b) Wireless network
   c) Metropolitan
   d) Wide area network

5. Which of the following make data entry easier but may harm data quality:
    a) Use of templates
    b) Copy and paste
    c) Drop-down boxes
    d) Structured data

6. I am a patient, my medical history including information from myself, and the physicians is stored on the Internet. This is an example of which of the following terms?
    a) Health record
    b) EHR
    c) PHR
    d) Data

7. I am a patient. I went to see the doctor who owns her own office practice. This type of care is called..?
    a) Hospital-based ambulatory care services
    b) Community-based ambulatory care services
    c) Private medical practice
    d) Freestanding ambulatory care center

8. Which of the following is the benefit of EHR?
    a) Improved efficiency
    b) Costs
    c) Fear of technology
    d) Security concerns

9. Which of the following is an example of a technical measure?
    a) policy that states that passwords cannot be shared
    b) A policy that states that only authorized people can access the data center
    c) Locking the door of the data center
    d) Assigning passwords that limit access to computer stored information

10. Critique this statement: The PHR and EHR are synonyms.
    a) This is true statement; both are controlled by the patient.
    b) This is a false statement as the PHR is controlled by the care providers and the -EHR is controlled by the patient.
    c) This is false statement as the PHR is controlled by the patient and the EHR is controlled by the care providers.
    d) This is true statement; both are controlled by the healthcare provider.

SECTION B True or False   **[10]**

Write TRUE OR FALSE answer in the answer book provided

1. The primary benefit of an EHR in a hospital is quality improvement.

2. DOS stands for disk operating standard.

3. Data currency refers to the availability of medical information such as critical lab values to in a timely manner.

4. Education and reference software is one category of application software.

5. Good database design is a process that involves a team of individuals who have good relational database knowledge and extensive technical database design expertise.

6. IS doesn't help healthcare organisations in meeting the growing needs of patient, providers, and payers' electronic information.

7. The local-area network (LAN) connects computers in a relatively small area (for example, within one room or one building).

8. Confidentiality is the right of an individual to limit access to information about his or her person.

9. Knowledge discovery in database uses data mining techniques to derive knowledge from trends and patterns discovered in the process of mining.

10. Data security includes all the protection measures and tools for safeguarding information.

SECTION C   STRUCTURED QUESTIONS   **[70]**

Answer the following questions.

1. Define the following terminologies   (12)
   a. A data Warehouse
   b. Database Management System
   c. Management Support Information System
   d. A database
   e. Electronic Health Record
   f. Information Security

2. List four benefits of implementing HIT at the local clinic or state hospital.   (4)

3. For any healthcare organisation that intent to have digital information, Information Systems Development Life Cycle (SDLC) process must be done in a logical manner. Citing examples of activities that must be achieved for each phase, define, and discuss the SDLC phases.   (10)

4. State six (6) benefits of Electronic Health Records (EHR) that will lead to quality patient care.   (6)

5. The tools of health informatics and health information technology are continually improving to bring greater efficiency to information management in the health care sector. Discuss the functions of HIM.   (5)

6. List and describe types of Information Systems used by physicians, managers, and coders in healthcare.   (6)

7. Major Information Systems (IS) falls into categories, name the three categories.   (3)

8. Information security includes a variety of protection measures that safeguard data and computer programs and resources from undesired access and exposure. Discuss three

pertinent measure of information security? (6)

9. Computers can also be divided into three categories depending upon their instruction and form of input data that they accept and process. List and differentiate between the various types of computers. From the three, select one that you think is best for hospitals and why? (6)

10. You are appointed as a database manager by the HIM department and activities assignment to your desk includes techniques for Database Integrity. Because databases are the backbone of an EHR, careful attention must be given to ensure that data stored in a database have the data quality. List six (6) data quality characteristics. Pick three (3) of the characteristics and describe what they mean in DBMS? (8)

11. State five (5) function of an administrative information systems which support the business functions of the organisation. (4)

---END OF EXAM