FACULTY OF HEALTH, APPLIED SCIENCES, AND NATURAL RESOURCES

DEPARTMENT OF HEALTH SCIENCES

QUALIFICATION : BACHELOR OF SCIENCE IN HEALTH INFORMATION SYSTEMS MANAGEMENT	
QUALIFICATION CODE: 07BHIS	**LEVEL:** 5
COURSE CODE: FOH521S	**COURSE NAME**: FOUNDATIONS OF HEALTH INFORMATION MANAGEMENT
SESSION: JANUARY 2023	**PAPER:** THEORY
DURATION: 3 HOURS	**MARKS:** 100

SUPPLEMENTARY/SECOND OPPORTUNITY EXAMINATION QUESTION PAPER	
EXAMINER(S)	Ms. SINTE MUTELO
MODERATOR:	Dr SUAMA HAMUNYELA

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

PERMISSIBLE MATERIALS

1. Examination paper.
2. Examination script.

THIS MEMORANDUM CONSISTS OF 8 PAGES (Including this front page)

SECTION A MULTIPLE CHOICE [20]

Write only the correct letter of your choice in the answer book. (1 mark each)

QUESTION 1

1.1 Data could be entered into a mainframe computer and viewed by an end user through a:

- a) Shared system
- b) Microcomputer
- c) Minicomputers
- d) Dummy terminal

1.2 What initiative began in the early 2000s that was specifically intended to bring multiple

stakeholders into formal partnerships to exchange health data electronically?

- a) HIEs
- b) ACOs
- c) PCMHs
- d) CPOE

1.3 Medical records that are created and organised around the patient's problems are known

as:

- a) health record
- b) patient-oriented medical records
- c) Chronological organised records
- d) content bases records

1.4 A network that is worldwide and which is no one person or entity owns is called:

- a) Internet
- b) HTML
- c) Extranet
- d) Broadband

1.5 A job requires you to move from one location to another. Which of the following enhances

your mobility?

- a) Desktop computer
- b) Laptop computer
- c) Microchips
- d) Printer

1.6 The instructions that make every computer work, regulate hardware, and allow several tasks to be done simultaneously are known as:

    a) Java
    b) Networks
    c) Operating system
    d) Hardware

1.7 Monitoring a patient blood sugar level at home through glucose attached to a cell phone is an example of the:

    a) Telemedicine
    b) Telehealth
    c) Home Health
    d) Electronic Consultation

1.8 A portable method of storage of health data is known as:

    a) e-medicine
    b) Smart card
    c) e-health
    d) e-care

1.9 Which of the following is the great benefit of EHR

    a) Quality of data
    b) Costs
    c) Improved efficiency
    d) Security concerns

1.10 Many believe the greatest advantage of telehealth is the elimination of:

    a) Travel
    b) Time
    c) Cost increase
    d) Treatment

1.11 The number-one reason for maintaining patient records is:

    a) Legal documentation
    b) Communication
    c) Patient Care
    d) Billing and reimbursement

1.12 The main source(s) of data that go into hundreds of aggregate reports or queries that are often developed and used by providers and executives in healthcare organisations are:

   a) Patient records
   b) Uniform billing information
   c) Discharge data sets
   d) All of the above

1.13 What is NOT considered a function of a "basic" HER system?

   a) Clinical documentation
   b) Diagnostic test results
   c) Electronic ordering of medication
   d) Computerised provider order entry(CPOE)

1.14 The term used to describe the unique identifier in a field is known as:

   a) Primary key
   b) Foreign key
   c) Normalisation
   d) Data definitions

1.15 Using an abbreviation that has two different meanings is an example of a lack of:

   a) Data currency
   b) Data consistency
   c) Data Precision
   d) Data granularity

1.16 In the database the concept of the patient is an example of a(n):

   a) entity
   b) relationship
   c) data flow diagram
   d) case software

1.17 Which of the following would be a project?

   a) Completing a monthly report
   b) Implementing the EHR
   c) Making minor changes to a policy and procedures
   d) Drafting a request for proposal

1.18 What is NOT necessarily considered a workflow advantage of CPOE?

   a) Legibility of orders
   b) Remote access
   c) Turnaround time
   d) Providers alerts

1.18.1 Once the project steering committee has been established, one of the first things it should do is to:

a) Defining project goals
b) Determine system requirements
c) Develop an RFP
d) Hold vendor demonstrations

1.20 Planning is critical to the system selection and implementation process. Planning for IS is a complex process and includes:

a) Planning and analysis
b) Setting the goals and objectives
c) Implementation
d) Evaluation and support

SECTION B TRUE OR FALSE [10]
  Write a TRUE OR FALSE answer in the answer book provided. (1 mark each)
  QUESTION 2

2.1 As part of the patient's medical record, the identification form or face sheet is considered both a clinical and administrative document.

2.2 System analysis is an important process of collecting, organising, and evaluating data on the organisation and the IS that it needs.

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

2.4 IT systems alone have been shown to improve data accessibility and legibility.

2.5 Electronic health records (EHRs) are considered a clinical application or clinical information system.

2.6 A set of universally recognised set of healthcare data quality standards exists today.

2.7 A personal health record (PHR) is managed by a consumer and may contain both health and wellness information, such as an individual's wellness plan.

2.8 The system life cycle is an ongoing process.

2.9 System implementation begins once the organisation has acquired the system and continues through the early stages following the go-live data.

2.10   The system selected does not need to support the organisations business objectives.

SECTION C   STRUCTURED QUESTIONS   **[30]**

Answer the following questions.

QUESTION   3

3.1 Define the following terminologies   (10)

      a. Hardware

      b. Local Area Network.

      c. E-health

      d. Health informatics

      e. Health Information System

3.2 State the benefits of using the internet in a healthcare organisation?   (5)

3.3 What is Health level 7? List its levels in an orderly manner   (8)

3.4 Name five (5) Health Information Systems you know.   (5)

3.5 How do you differentiate a Database from a Spreadsheet? Give two (2) key
    differentiators?   (2)

SECTION D   CASE STUDY   **[40]**

QUESTION 4

4.1 The patient portal is one of the components found in the Health Information Exchange (HIE) structure. HIE can be defined as the electronic movement of Health Information among organisation according to national standards. If today you are appointed as a health informatics Office by the Ministry of Health and Social Services and tasked by the Director to design an interface for the Patient portal. Use your knowledge to design the parts you think could be of importance to the organisation and patients.   (20)

4.2 A network consists of two or more computers connected, they can communicate and share resources (e.g. information). You are appointed as a health Information office for the ministry of Social Services in Namibia and located at the head office. Your supervisor requests your input on the decision to be taken to set up a network on the computers that will allow fast access to data, sharing, and retrieval of information. Between Peer-to-Peer networks and client and server networks which one will you recommend and why?   (20)

---END OF EXAM---