

# NAMIBIA UNIVERSITY OF SCIENCE AND TECHNOLOGY 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: NOVEMBER 2022	PAPER: THEORY					
DURATION: 3 HOURS	MARKS: 100					

FIRST OPPORTUNITY EXAMINATION QUESTION PAPER		
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	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 7 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)

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- 1.1 A computer is an electronic device that consists of:
  - a) Hardware
  - b) People
  - c) Internet
  - d) Information
- 1.2 The memory within a computer is measure as\_\_\_\_\_
  - a) ROM
  - b) MHz
  - c) CPU
  - d) RAM
- 1.3 Which of the following function in healthcare would utilise a barcode?
  - a) Dictation of document for the health record
  - b) Capturing pictures lesion in colon
  - c) Tracking x-rays films
  - d) Recording video of surgery
- 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) Dump terminal
- b) Wireless network
- 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 The number-one reason for maintaining patient records is:
  - a) Legal documentation
  - b) Communication
  - c) Patient Care
  - d) Billing and reimbursement
- 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) Improved efficiency
  - b) Costs
  - c) Fear of technology
  - d) Security concerns
- 1.10 Many believe the greatest advantage of tele-health 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 Raw unprocessed healthcare facts generally stored as characters, words, or symbols is known as:
  - a) Health care data
  - b) Health care information
  - c) Health care text
  - d) Health care knowledge
- 1.14 Errors that can be attributed to a flaw or discrepancy in adherence to standard operating procedures or systems are known as:
  - a) Systematic errors
  - b) Random Errors
  - c) Methodical errors
  - d) Programming errors
- 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 The type of information system that can be used to manage personnel, finances, materials supplies, or equipment is specifically known as a:
  - a) Health care information system
  - b) Administrative information system
  - c) Clinical information system
  - d) Ancillary information system
- 1.17 What term is often used to describe hosted services that are delivered over the internet?
  - a) Local Area Network (LAN)
  - b) Telemedicine
  - c) Cloud Computing
  - d) HIE
- 1.18 Health care information standards and implementation specifications are examples of what type of barriers to adoption:
  - a) Financial barriers
  - b) Organisational and behavioural barriers
  - c) Technical barriers
  - d) Privacy and security barriers

- 1.19 One of the first steps in the system acquisition process is to:
  - a) Defining project objectives and scope of analysis
  - b) Determine system goals
  - c) Screen the marketplace and review vendor profiles
  - d) Establish a project steering committee and appoint a project manager
- 1.20 The phase of the system development life cycle where all alternatives are considered, a cost- benefit analysis is done, a system is selected, and vendor negotiations are finalized is known as:
  - a) Planning and analysis
  - b) Design
  - c) Implementation
  - d) Evaluation and support

## SECTION B TRUE OR FALSE [10] Write 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. An electronic health record (EHR) is an electronic record of health-related information on an individual that can be managed, shared, and controlled by that individual.
- 2.2 Data currency refers to the availability of medical information such as critical lab values to in a timely manner.
- 2.3 IT systems alone have been shown to improve data accessibility and legibility.
- 2.4 Electronic health records (EHRs) are considered a clinical application or clinical information system.
- 2.5 CPOE systems are easily implemented and operate in isolation.
- 2.6 The primary focus of the planning and analysis phase is on the business problem or the organisation's strategy, independent of any technology that can or will be used.
- 2.7 System acquisition refers to the process that occurs from the time the decision is made to select a new system until the time the system has been fully implemented.
- 2.8 System implementation begins once the organisation has acquired the system and continues through the early stages following the go-live data.
- 2.9 The building blocks of the World Wide Web are web pages.

SECTION (	SECTION C STRUCTURED QUESTIONS		[60]	
Answer the following questions.				
QUESTION	13			
3.1 Define	the	following terms with examples where possible:	[5]	
	b. c. d.	Data Information System Information Technology (IT) Structured Query Language (SQL) Database		
3.2 A basi	c In	formation System (IS) consists of four basic elements, list and d	iscuss each	
eleme	nt.		[10]	
3.3 Inform	atic	on systems must be created in a logical manner. The system devel	opment life	
cycle (	SDL	C) is traditional to plan and implement an IS in organisation. List	and discuss	
what h	napp	pened in each phase of the SDLC.	[10]	
3.4 Accord	ling	to the American Health Information Management Association (Al	HIMA) Data	
Quality	у Ма	anagement Model (DQMM), for data to be called quality data, they	must meet	
10 diff	erer	nt characteristics. List the characteristics of quality of Data.	[10]	
3.5 What are the two elements of a computer system? [2]			[2]	
3.6 Name	and	describe the two major types of systems in healthcare?	[4]	
3.7 Discus	s th	e five major concerns that can arise in conjunction with electronic	cally stored	
data w	het	her stored on HIS, on internet servers, or on personal computers?	[5]	
3.8 Data protection is a number one issue in every organisation. To protect data and systems				
from t	he t	hreat organisation should take steps: State steps to be considered	[5]	

---END OF EXAM

[4]

[5]

[5]

3.9 Discuss the purposes of each of these systems in (HIM)

3.10 What are the benefits of electronic database in healthcare

3.11 List the five categories in which Information Systems can fall under