



NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF ENVIRONMENTAL SCIENCE

DEPARTMENT OF ENVIRONMENTAL HEALTH

BACHELOR OF ENVIRONMENTAL SCIENCE HONOURS DEGREE IN PUBLIC HEALTH

INTRODUCTION TO INFORMATION MANAGEMENT SYSTEMS IN PUBLIC HEALTH

EPH 1102

Final Examination Paper

October 2024

This examination paper consists of 3 pages

Time Allowed: 3 hours

Total Marks: 100

Special Requirements: None

Examiner's Name: M.W. Mpofu

INSTRUCTIONS

1. Answer **All Questions in Section A** and **any THREE (3) Questions in Section B**
2. Section A carries 40 Marks , and Each question in Section B carries 20 marks

MARK ALLOCATION

QUESTION	MARKS
Section A	
1.	16
2.	12
3.	12
Section B	
4.	20
5.	20
6.	20
7.	20
TOTAL	100

Section A: Answer all questions

Question 1

- a) Distinguish between passive and active attacks in relation to computer security threats [6]
- b) Explain the importance of data backup in computer systems. [5]
- c) Outline how a BUS network operates. [5]

Question 2

Describe the following types of data as classified in DHIS2 stating the applications used in entering them into the DHIS2 system:

- a) Aggregate data [4]
- b) Event Data [4]
- c) Tracker Data [4]

Question 3

- (a) The information stored in computer storage devices can be accessed in two ways:
 - 1. Sequential access
 - 2. Direct accessExplain each type of access in brief [4]
- (b) Describe the roles and functions of Health information Systems at the following Administrative levels:
 - I. Rural Health Centre [2]
 - II. District: [2]
 - III. Provincial: [2]
 - IV. National: [2]

SECTION B: ANSWER ANY THREE QUESTIONS

Question 4

- a) Information technology plays a vital role in decision-making in health planning & management, Discuss. [10]
- b) Discuss any 5 functions of an Operating System in a computer [10]

Question 5

- a) Discuss the barriers to the adoption of Electronic Health Records in low- and middle-income countries. [6]
- b) Discuss the main sources of health information data used by the Ministry of Health in Zimbabwe. [8]
- c) Giving examples, distinguish between Health quality Indicators and Health Utilisation Indicators. [6]

Question 6

- a) What are the objectives of an Information management system [8]
- b) Discuss the different components of a health information system. [12]

Question 7

- a) Discuss the three main parts of a central processing unit (CPU) [12]
- b) What is the importance of computer networking [8]