



***“Investing in Africa’s Future”***  
**COLLEGE OF HEALTH, AGRICULTURE & NATURAL SCIENCES**  
**DEPARTMENT OF PUBLIC HEALTH AND NURSING**

**NSHI500 HEALTH INFORMATICS EXAMINATION FIRST PAPER**

**END OF SEMESTER EXAMINATIONS**

**May 2021**

**LECTURER: MR FELIX MADYA**

**DURATION: 7 HOURS**

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***INSTRUCTIONS***

Do NOT write your name on the answer sheet.

Answer (fully) any one question of your choice.

Begin your answer for each question on a new page.

Font: Times New Roman, Font size 12, Line space: 2.0.

Credit is given for neat, well-written and lucid work.

## QUESTION 1

- a) Using examples and case studies, the steps followed, and success factors for implementing the District Health Information System (DHIS2) in any country of your choice (25 marks).
- b) Using examples identify DHIS2 system implementation gaps and challenges for Zimbabwe or any other developing country of your choice and proffer quality improvement recommendations to the policy makers and other stakeholders (25 marks).
- c) Describe and thoroughly analyse the strengths and weaknesses of using open-source information systems drawing examples from organisations in any sub-Saharan African country (LMIC) (25 marks).
- d) Describe and thoroughly analyse the strengths and weaknesses of using proprietary information systems drawing examples from organisations in any sub-Saharan African country (LMIC) (25 marks).

## QUESTION 2

- i. Sitting examples of any government health institution of your own choice, discuss the key steps followed in setting up an electronic health information management system (25 marks).
- ii. Using examples discuss common examples that are faced by public health practitioners in setting up and implementing electronic health information management system in public health NGOs (25 marks)
- iii. Define and explain the benefits of the following systems to public health practitioners involved in the fight of non-communicable diseases: ii) Biomedical computing, ii) Enterprise Health Architecture, iii) Decision support and expert systems in public health (25marks)
- iv. Citing relevant examples or case studies discuss the level of use of biomedical computing, enterprise health architecture and decision support and expert systems in any Zimbabwe (25 marks).

## QUESTION 3

- i. Discuss Geographic Information Systems (GIS) use in public health institutions in Sub-Saharan Africa highlighting advantages and disadvantages for using these in government health institutions (25marks).

- ii. Discuss how mHealth tools can improve effectiveness in the public health sector in Zimbabwe? (25)
- iii. Discuss Geographic Information Systems (GIS) use in public health institutions in Sub-Saharan Africa highlighting advantages and disadvantages for using these in government health institutions (25marks).
- iv. Discuss how fragmented health care delivery systems impact on patient outcomes? (25) (25marks).