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**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE IN
HEALTH RECORDS AND INFORMATION MANAGEMENT
HRIM 851: HEALTH INFORMATION SYSTEMS TECHNOLOGY, APPLICATION
AND SECURITY**

STREAMS: MSc (HEALTH RECORDS)

TIME:3 HOURS

DAY/DATE: THURSDAY 07/08/2025

2.30 P.M. –5.30 P.M

INSTRUCTIONS:

1. Do not write anything on the question paper.
2. Mobile phones and any other reference materials are NOT allowed in the examination room.
3. The paper has two sections. Answer ALL questions in Section I and TWO questions from Section II. Note that Question 2 is compulsory.
4. Number ALL your answers and indicate the order of appearance in the space provided in the cover page of the examination answer booklet.
5. Write your answers legibly and use your time wisely.

SECTION ONE: Answer all questions in this section (30marks)

Question One

- a) Discuss how interoperability challenges in Health Information Systems can affect continuity of patient care. Propose strategies to overcome these challenges. (10 Marks)
- b) Describe the process of designing a GIS-based health investigation to study the spread of an infectious disease. Include key stages and stakeholders involved. (10 Marks)
- c) How can block chain technology enhance security and privacy in health information systems? Identify potential limitations or barriers to its adoption in healthcare. (10 Marks)

SECTION TWO: Answer two questions in this section (Question 2 is Compulsory plus any other question) (30marks)

Question Two

Design a framework for monitoring and evaluating a national immunization program using GIS and data management technologies. Include key performance indicators, data sources, and stakeholder roles.

Question Three

Using examples, evaluate how mobile health (mHealth) applications contribute to chronic disease management. Highlight any associated privacy or usability concerns

Question Four

Outline the evolution of Electronic Health Records (EHRs) from paper-based to modern cloud-based systems. Discuss the impact of transition from paper based to modern cloud-based systems on clinical decision making

Question Five

Identify and discuss three major challenges health information professionals face during the transition to advanced health information technologies. Provide solutions for each challenge.

(10 Marks)
