

KATHMANDU UNIVERSITY
End Semester Examination
March/April, 2025

Marks Scored:

Level : BHI

Year : I

Exam Roll No. :

Time: 30 mins.

Course : HIMS 105

Semester : I

F. M. : 10

Registration No.:

Date : 11 April 2025

SECTION "A"

[20 Q. × 0.5 = 10 marks]

Select and Mark [X] in the best alternative for each of the questions.

1. Which one of the following is not the key component of the Information System?
 Software Data Database People
2. Which of the following is a key benefit of Electronic Health Records (EHRs)?
 Increased paper documentation
 Improved patient data accessibility
 Decreased data security
 Limited interoperability between healthcare provider
3. Which health data standard is primarily used for coding diagnoses in healthcare?
 HL7 ICD-10 SNOMED CT DICOM
4. Which of the following is essential for achieving interoperability in health information systems?
 Using proprietary data formats
 Implementing standard terminologies and protocols
 Restricting data sharing between organizations
 Avoiding cloud-based systems
5. Which of the following protocols is commonly used for secure health data exchange?
 FTP (File Transfer Protocol) HL7 (Health Level Seven)
 HTTP (Hypertext Transfer Protocol) POP3 (Post Office Protocol)
6. In a health information system, which type of data is typically stored in the domain layer?
 User interface layouts and color schemes
 Raw sensor data from medical devices
 Patient demographics, diagnoses, and treatment histories
 Printer settings and display resolutions
7. Which of the following is an example of a physical data processing system in healthcare?
 A cloud-based EHR platform
 A barcode scanner for patient medication administration
 A hospital website for scheduling appointments
 A mobile health (mHealth) fitness app

8. Which of the following is a primary function of an operating system in a healthcare information system?
 Managing hardware resources and software applications
 Storing patient records in a relational database
 Providing direct patient care
 Designing hospital websites
9. Which of the following is a critical component of successful change management in health informatics?
 Ignoring staff resistance to new technologies
 Providing comprehensive training and support
 Implementing changes without prior communication
 Avoiding stakeholder involvement in the process
10. Which of the following is the first phase of the System Development Lifecycle (SDLC)?
 Implementation Analysis Planning Design
11. Which of the following terms refers to the presence of a disease within a specific population or region?
 Epidemic Endemic Pandemic Sporadic
12. Which of the following is an example of a non-communicable disease (NCD)?
 Tuberculosis Hypertension Influenza Malaria
13. Which of the following is NOT one of the six building blocks of a health system as defined by the WHO?
 Health Service Delivery Health Workforce
 Health Transportation System Health Information Systems
14. Which of the following is a key role of Information Technology in healthcare?
 Replacing doctors with robots
 Improving patient data management and access
 Eliminating the need for medical professionals
 Reducing the number of hospitals
15. What is the primary goal of a well-functioning health system?
 Maximizing hospital profits
 Ensuring universal access to quality healthcare services
 Replacing human doctors with AI systems
 Increasing the number of hospitals in rural areas
16. Which social media strategy is most effective in controlling misinformation about public health crises?
 Banning all health-related discussions online
 Encouraging influencers to post personal opinions on medical issues
 Partnering with health authorities to provide fact-checked information
 Promoting content without verifying its authenticity

17. Which regulatory standard ensures that mobile health (mHealth) applications comply with data security and patient privacy laws?
 GDPR HTML5 ASCII Standard ISP Licensing Act
18. Which type of telemedicine involves real-time video consultations between a healthcare provider and a patient?
 Store-and-forward telemedicine Remote patient monitoring
 Synchronous telemedicine Asynchronous telemedicine
19. Which network topology would be the best choice for supporting telemedicine consultations in remote areas where high network reliability and fault tolerance are critical, and multiple backup connections are necessary?
 Bus Mesh Star Hybrid
20. Which of the following regulations addresses the legal rights of individuals regarding the access to their own health records, and the correction of inaccurate information?
 Federal Privacy Act
 Genetic Information Nondiscrimination Act (GINA)
 Freedom of Information Act (FOIA)
 HIPAA Privacy Rule

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11 April 2025

SECTION "B"

[6 Q. × 4 = 24 marks]

Attempt *ANY SIX* question.

1. Define information technology and explain its significance in the healthcare domain.
2. Discuss three core features of DHIS2.
3. What do you understand by EHR? Explain the role of EHR system in Health Information system.
4. Explain the major different Phases of software development life cycle.
5. What do you mean by International Classification of Disease? Why is it important to classify diseases systematically in healthcare?
6. Discuss the effectiveness of the different channels of Health Information Delivery.
7. Discuss the importance of Legal and ethical values in health system Regulations.

SECTION "C"

[2 Q. × 8 = 16 marks]

Attempt *ANY TWO* question.

8. Discuss the logical and physical tool layer in Health Information system.
9. Discuss the role of interoperability in health information exchanges. How does it impact the efficiency of healthcare delivery?
10. State the six building blocks of the Health system and explain the role of Health Information System and its sources in context of Nepal.

