



**AMREF INTERNATIONAL UNIVERSITY**  
**SCHOOL OF MEDICAL SCIENCES**  
**DEPARTMENT OF REHABILITATION MEDICINE**  
**BACHELOR OF SCIENCE IN PHYSIOTHERAPY**

**END OF TRIMESTER EXAMINATIONS JANUARY TO APRIL 2025**

**UNIT CODE: PHT 414**

**UNIT NAME: Health systems for rehabilitation**

**DATE: 15th APRIL 2025**

**TIME: 11.15am-1.15pm**

**INSTRUCTIONS**

1. All students will have two (2) hours to complete the examination
2. Attempt all questions as per the instruction
3. It is the student's responsibility to report any page and number missing in this paper.
4. Check that the paper is complete
5. Total number of pages is 7 including the cover.
6. Read through the paper quickly before you start.

**Section One: Answer all the questions. Multiple Choice Questions (30mks)**

1. Electronic medical record (EMR) is a software that
  - a. Stores medical information on each patient
  - b. Assist in informed clinical decisions.
  - c. Assist health facilities with daily operations.
  - d. Enables patients peruse their health data.
2. Factors to consider when choosing right health information system
  - a. Used interface
  - b. System hosting
  - c. Cost
  - d. All the above
3. Which of the following is a primary source of data?
  - a. Published reports
  - b. Observations
  - c. Census
  - d. Online data
4. A of data collection method utilized with a small group of people sharing common interests.
  - a. Interviews
  - b. Observation
  - c. Focus group
  - d. Surveys
5. Thematic data analysis involves
  - a. Focus on text content to identify key concepts
  - b. Identification of major themes and sub themes
  - c. Creation of stories and narratives
  - d. Examining language within ac specific context

6. Qualitative data analysis involves the following method
  - a. Thematic analysis
  - b. Content analysis
  - c. Discourse analysis
  - d. Regression analysis
7. Which health information source deals with the protection and improvement of people and communities health?
  - a. Medical records
  - b. Research
  - c. Public health
  - d. Survey
8. Which specific data is needed by a radiographer to deliver quality patient care?
  - a. Imaging studies
  - b. Staffing scheduling
  - c. Inventory management
  - d. Billing
9. Information and systems requirements can be identified through?
  - a. Content analysis
  - b. Stakeholder interviews
  - c. Thematic analysis
  - d. Discourse analysis
10. Designing information system in health care involves:
  - a. Stress testing
  - b. System selection
  - c. Needs assessment
  - d. Functionality
11. Method of evaluating health information systems:
  - a. Cost-benefit analysis
  - b. Formative evaluation
  - c. Regression evaluation
  - d. Summative evaluation

12. .... is a specific method for testing information systems.
- Cloud testing
  - Pilot testing
  - Hybrid testing
  - Regression testing
13. What challenge is encountered when designing a health information system?
- Cost
  - Interoperability
  - Data security and privacy
  - All the above
14. Data in information technology is utilized in strategic management for;
- Fraud detection
  - Personalized medication
  - Monitoring competitors' activity
  - Disease's surveillance
15. Challenge associated with use of data in information technologies in financial management;
- Technical expertise
  - Time
  - Space
  - Data quantity
16. One of the following is an ethical issue related to health information management
- HIPAA compliance
  - Autonomy
  - Medical malpractice
  - Data breach notification
17. Which emerging technology is more beneficial for management of chronic conditions?
- Block chain
  - AR/VR
  - The internet of (medical)
  - Artificial intelligence

18. Block chain as an emerging technology in health care delivery and management
- Improves data transparency and traceability
  - Gives patients more control of their health data
  - Allows patients data access to other hospitals.
  - All the above
19. Positive effects of electronic medical records use on health care organizations include;
- Increased understaffing
  - Improved patient care
  - Workflow disruption
  - Increased data security concerns.
20. The following is a potential challenge on telemedicine use in health care organizations
- Management of chronic diseases
  - Lack of management support
  - Underutilization of services by health staff
  - Increases cost of care
21. E-commerce use contribution to health care organizations include:
- Reducing cyber security concerns
  - Improving digital divide
  - Personalizing health care
  - Reducing telemedicine capabilities.
22. E-commerce models include;
- Consumer to business
  - Business to consumer
  - Customer to customer
  - All the above
23. Challenge associated with internet use on health care organizations;
- Digital equity
  - Technical barriers
  - Lack of administrative support
  - Clinical limitations

24. In which level is qualitative data measured?
- Ratio
  - Superior
  - Nominal
  - Interval
25. In regression analysis
- Relationship between a dependent and independent variables is measured.
  - Correlation between two variables is measured
  - Data is summarized using measures of central tendency.
  - Data from sample size is generalized to whole population
26. Which of the following is an example of data element?
- Numbers
  - Images
  - Texts
  - All the above
27. Which statements best describes block chain technology?
- A technology that protects patient data from hackers
  - A technology that tracks, measures and shares data with providers immediately.
  - A technology that provides fast and more precise diagnosis.
  - A technology that simplifies remote diagnosis treatment.
28. Which health information systems below is best for patients with chronic conditions?
- Laboratory information systems
  - Facility management system
  - Remote patient monitoring
  - Logistics management information system
29. An ethical issue related to health information management.
- Medical malpractice
  - Justice
  - HIPAA compliance
  - Data breach notification

30. In the health care industry robotics are primarily used for
- Surgical guides
  - Personalized medication
  - Diagnosis decision support
  - Automating routine tasks

**Section Two: Short Answer Questions. Answer all the questions (20mks)**

- List five sources of data in the health sector (5mks)
- Discuss five types of information systems utilized in health care industry (5mks)
- Explain aspects to consider when evaluating a health information system (5mks)
- Describe how data in information technologies is used in population management (5mks)

**Section Three: Long Answer Questions (20mks)**

**Instruction:** Answer two questions ONLY.

- Discuss current and future trends in information technology (5mks)
  - Explain how the above trends are being used in health care industry (5mks)
- Describe how data in information technology is used in financial management (10mks)
- Discuss benefits of using standard enabled health care pathways (5mks)
  - List examples of health condition where standard enabled health care pathways are used (5mks)