



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 (Special)

DATE: 15th APRIL 2025

TIME: 11.15am-1.15pm

INSTRUCTIONS

- 1. All students will have two (2) hours to complete the examination**
- 2. This is an online exam, 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 6 including the cover.**
- 6. Read through the paper quickly before you start.**
- 7. Upon finishing the exam paper, on submission, the message 'Your examination has been submitted' will appear.**

TOTAL: _____/70

PERCENT: _____/100%

POINTS EARNED TOWARDS FINAL GRADE _____/70

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

1. Which of the following data is handled by health information systems?
 - a. Laboratory data
 - b. Human resource data
 - c. Disease surveillance data
 - d. All the above
2. An health information system dealing with management of financial data.
 - a. Clinical decision support
 - b. Financial health information system
 - c. Remote patient monitoring
 - d. Human resource information system
3. Which type of data is available to public and needs no protection?
 - a. Restricted
 - b. Confidential
 - c. Public
 - d. Private
4. Which of the following levels of data measurement yields comprehensive results
 - a. Ratio
 - b. Nominal
 - c. Interval
 - d. Ordinal
5. In qualitative data reporting
 - a. Recurring patterns and insights are highlighted
 - b. Detailed quotes from participants are used
 - c. Story like format is constructed to increase readers understanding
 - d. All the above
6. Data is disseminated in the following ways
 - a. Publications
 - b. Hybrid format
 - c. Visual aids
 - d. Regression method

7. Which of the following health information system directly deals with patient care?
 - a. Human resource for health information system
 - b. Patient portals
 - c. Logistic management information system
 - d. Fixed assets management information system
8. Which specific data is required by administration to deliver quality patient care?
 - a. Immunization records
 - b. Clinical notes
 - c. Insurance information
 - d. Laboratory results
9. Identifying information and systems requirements in health care setting involves?
 - a. Health care settings analysis
 - b. User needs
 - c. Regulatory compliance
 - d. All the above
10. When designing a health information system consider
 - a. Change management
 - b. Data quality
 - c. Clear objectives
 - d. Continuous monitoring
11. Aspect to consider when implementing a health information system
 - a. User friendly interface
 - b. Data security and privacy
 - c. Change management
 - d. All the above
12. Interoperability testing of health information system means
 - a. Ensuring easy data exchange
 - b. Validating system calculation of medical parameters
 - c. Assessing easy use of the system
 - d. Confirming security features
13. Change management in health system implementation involves

- a. A system which is user friendly.
 - b. Transition to new system with minimal patient care discrimination
 - c. Installing adequate security measures in a system
 - d. Ensuring system integrates with other systems
14. Benefits of using data in information technology in financial management include.
- a. Accessing and analyzing data in real-time.
 - b. Support strategic financial decisions
 - c. Improve efficiency in routine tasks
 - d. All the above
15. How is data in information technologies in clinical outcomes management applied?
- a. Benefit eligibility verification
 - b. Personalized medicine
 - c. Population health analysis
 - d. Land use analysis
16. Which of the following is a legal issue related to health information management?
- a. Non-maleficence
 - b. Autonomy
 - c. Medical malpractice
 - d. Confidentiality
17. Main impact of artificial intelligence technology in health care delivery and management?
- a. A life safer for chronic conditions
 - b. Equips learners with social skills
 - c. Frees data from hackers
 - d. Provides faster and accurate diagnosis
18. Edge computing is utilized in health care sector in
- a. Dispensing medication
 - b. Remote patient data monitoring
 - c. Clinical decision support
 - d. Medical imaging analysis
19. A modern technology applied in the fabrication of dental models.
- a. Robotics

- b. Block chain
 - c. 3D printing
 - d. Big data
20. Telemedicine use can significantly impact on health care organizations by;
- a. Reducing care coordination
 - b. Reducing patient satisfaction
 - c. Increasing access to care
 - d. Increasing costs
21. Which of the following is a potential risk of e-commerce use on healthcare organizations?
- a. Regulatory compliances
 - b. Technology complexity
 - c. Cyber security concerns
 - d. All the above
22. Health information technology utilized in the implementation of healthcare pathways:
- a. Clinical decision support
 - b. Electronic documentation
 - c. Web-based portals
 - d. All the above
23. National health information network is used for.
- a. Surgical assistance
 - b. Facilitative sharing of patient data between providers
 - c. Telepresence in remote care
 - d. Capturing medical imaging
24. Current information technology applied in health care delivery
- a. Microwave
 - b. Ultrasound
 - c. Magnetic imaging
 - d. Robotics
25. During design and development of data collection reliability testing is important in?
- a. Measuring intended concepts accurately
 - b. Checking for consistency accurately

- c. Protecting patients' privacy
 - d. Detecting relevance of questions
26. Oral histories as a data collection method involves
- a. Conducting controlled experiments
 - b. Reviewing existing documents
 - c. Direct observation of participants
 - d. Interviewing people about their experiences
27. When reporting quantitative data
- a. Use IMRD format
 - b. Use visuals
 - c. Use clear language
 - d. All the above
28. One of the statements below best describes e-commerce
- a) A network of networks
 - b) The buying and selling of goods and service over the internet.
 - c) A technology which increases access to health care in geographically isolated areas.
 - d) Paperless patient records.
29. Is the most basic level of data measurement
- a. Ordinal
 - b. Ratio
 - c. Nominal
 - d. Interval
30. Benefits of using standard enabled health care pathways
- a. Enhance communication
 - b. Reduced health care costs
 - c. Improved patient outcomes
 - d. All the above

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

1. State five factors to consider when choosing right information system for practice (5mks)

2. Distinguish between data and information citing examples in each (5mks)
3. List key steps in designing and developing data collection instrument (5mks)
4. Identify five methods used in testing information systems in health care settings (5mks)

Section Three: Long Answer Questions (20mks)

Instruction: Answer two questions ONLY

1. Discuss five emerging technologies in health care delivery and management (10mks)
2. a) Explain five key characteristics of standard enabled health care pathways (5mks)
b) List five benefits derived from technology enabled health care pathways (5mks)
3. Discuss the steps involved in designing and developing a data collection instrument (10mks)