



AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF MEDICAL SCIENCES
DEPARTMENT OF NURSING AND MIDWIFERY SCIENCES
BACHELOR OF SCIENCE IN NURSING
END OF SEMESTER EXAMINATIONS DECEMBER 2023

COURSE CODE AND TITLE: BSN 416/ BSM 326 HEALTH INFORMATICS

Date: 14-DECEMBER 2023

Time: 2 Hours

Start: 9:00 A.M

Finish: 11:00 A.M

Instructions

- 1) This paper has three sections: Section A, Section B and Section C
- 2) Answer **ALL** questions in Section A and Section B and C
- 3) Use the University examination booklets provided
- 4) Re-writing the questions on your answer sheet is unnecessary

SECTION A: ANSWER ALL QUESTIONS (20 MARKS)

1. Regarding Health systems, the following are true except
 - a. All activities that promote, restore or maintain health
 - b. Improve the health of the population it serves
 - c. Respond to people's expectations
 - d. Provide financial protection against the costs of ill-health

2. Which of the following best describe information
 - a. Just Data collection
 - b. Understanding of the relationship between pieces of data
 - c. Data with reference to its context
 - d. Facts and figure without context

3. The ultimate objective of health management information system is to improve health through
 - a. Evidence based decision making
 - b. Providing management tool
 - c. Option appraisal
 - d. Quality control

4. Health Information Technology is used in a hospital for all of the following aspects except
 - a. Knowledge Management
 - b. Decision making
 - c. Communication
 - d. Clinical management

5. Telemedicine, Tele-radiology, Patient e-mail and Presentation are related to:
 - a. Communication
 - b. Decision Support
 - c. Knowledge Management
 - d. Sterilization.

6. A manger could use information for all of the following except
 - a. Health policy formulation
 - b. Program planning
 - c. Resource mobilization and allocation
 - d. Running a biochemical in micro analyzer

7. The Central level (Ministry of Health) use health information mostly for
- Health policy formulation
 - Implementation of BHU services
 - Treatment of patient
 - Billing
8. Which one of the following records pertaining to the health is more comprehensive
- Electronic Medical Record (EMR)
 - Electronic Health Record (HER)
 - Computerized patient records (CPRs).
 - Personal Health record (PHR)
9. All of the following are limitations paper record except
- The handwriting is unreadable
 - Expensive to copy
 - Easy to analyze
 - Missing of important documents
10. The organizational communication network that use internet technology and allows authorized user inside the organization to communicate with each other with in the institute is called
- Intranet
 - Extranet
 - Video-conference
 - E-mail
11. The purpose of decision support systems is to:
- Replace a manager's judgment during the decision-making process
 - Provide a predefined sequence of analysis during the process of problem solving
 - Provide interactive assistance during the process of problem solving
 - Automate a manager's decision-making process
12. Routine HMIS data collection methods consist of:
- Health Unit data collection
 - Community data collection
 - Civil Registration
 - All of the above

13. Renovation the data among the independent parties in health care system to ensure administrative, political and management decision are based on best available information called

- a. Data Transmission
- b. Data Process
- c. Data analysis
- d. Data interpretation

14. Data transmission between actors and consumers at the same level represent the

- a. Vertical transmission
- b. Horizontal transmission
- c. Dissemination of message
- d. Line transmission

15. The routine HMIS should support _____ type of Management Function

- a. Client/Patient Perspectives
- b. Health Unit Management Perspective
- c. Organizational/ Health System Management Perspective
- d. All of the above

16. _____ Provide the skeletal for population based health and their supporting information system programs

- a. Epidemiology
- b. Program content
- c. Research
- d. Policy

17. Which type of telemedicine requires the presence of both parties at the same time and a communications link between them that allows a real-time interaction to take place

- a. Real Time Telemedicine
- b. Store-and-Forward
- c. Synchronous
- d. A & C are correct

18. The statement “Any collection of components that work together to achieve a common objective” best describe

- a. System
- b. Health System
- c. Information
- d. Management

19. Meaningless point in space and time, without reference to its surroundings is referred to

- a. Knowledge
- b. Data
- c. Information
- d. Wisdom

20. Nurses use passwords and codes for their respective computers during their duty at their respective wards. This is: -

- a. Confidentiality
- b. Security
- c. Privacy
- d. Precaution

SECTION II: SHORT ANSWER QUESTIONS (30 MARKS)

1. State five (5) sources of health informatics (5 marks)
2. Define the following terms as used in health informatics (5 marks)
 - a. Health informatics
 - b. Electronic health records
 - c. Data
 - d. Information
 - e. Technology
3. State five (5) data collection methods (5 marks)
4. State five (5) key elements of informatics (5 marks)
5. State five (5) qualities of a good health website (5 marks)
6. Outline five (5) risks of online health information (5 marks)
7. State five (5) ways in which e-Health can be applied in societal health (5 marks)

SECTION III: LONG ANSWER QUESTION. CHOOSE ONE QUESTION 20 MARKS)

1. Discuss ethical challenges faced with health informatics. (20 marks)
2. Discuss application of e- health in:
 - (i) Nursing education (10 marks)
 - (ii) Nursing research (10 marks)