

The Open University of Sri Lanka
 Department of Nursing - BSc Honours in Nursing Programme
 NGU5208- Healthcare Informatics
 Academic Year 2018 /2019 - Level 5- No Book Test.01



Please return your question paper with your answer sheet

Date: 02.07.2019

Time: 9.00 a.m-10.00 a.m

Duration: 1 hour

Registration No:

**Please read the instructions given below before answering the questions.
 This question paper consists of four parts: Part A, Part B, Part C and Part D.
 Answer all questions.**

Part A – 10 Multiple Choice Questions (10 marks)

There are **10 Multiple Choice Questions** in this paper and below each question or statement contains four responses. Select the **best response** to each question and **encircle** it.

Part B – 10 Fill in the Blanks (10 marks)

There are nine (9) statements with ten (10) blanks. Fill in the blanks by using given words

Part C - Three (3) Short Answer Questions (SAQs) (60 marks)

Answer all the questions within the given space.

Part D- Short Essay Question(SEQ) (20 marks)

Answer within the given space.

For official use only	
Part A	
Part B	
Part C	
Part D	
Total	

Student Reg. No:

Part A – 10 Multiple Choice Questions**(10 marks)**

- 1) The primary aim of health informatics is;
 - a) Decision support
 - b) Adoption of technology
 - c) Effective use of medical data
 - d) Improving person's health

- 2) Select the most appropriate statement
 - a) Nurses do not play a role in developing health literacy skills of clients/patients
 - b) Evaluating the information for quality is an essential skill in project management.
 - c) Master Patient Index (MPI) is a central repository of demographic details of patients
 - d) Nursing informatics only include big data analysis and use of artificial intelligence in nursing related information.

- 3) What is **NOT** a responsibility within nursing informatics
 - a) Analyze clinically important data collected by nursing officers
 - b) Sustain and align nursing work processes with overall clinical care, using technology
 - c) Assist with change management of relevant digital health projects
 - d) Manage nursing care related information separately

- 4) Select which **CANNOT** be considered as a health data source relative to the other sources
 - a) Surveys
 - b) Clinical returns
 - c) Patients' values
 - d) Patient experience feedback

- 5) A project can be best described as
 - a) An activity with defined time period
 - b) A routine work carried out in an organization
 - c) A permeant activity in an organization
 - d) An activity evaluated only after the completion

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- 6) What is **NOT** true regarding the facets of data quality
- a) “Garbage-in garbage-out” principle denotes the importance of collecting quality data
 - b) Accuracy is a data quality dimension
 - c) Classifying and coding clinical data improves the quality of reporting
 - d) Data accessibility can be understood as the availability of all the available information to all the care providers
- 7) What is **NOT** correct regarding Health Information Systems
- a) Can be categorized as Task based and Subject based systems
 - b) Can be categorized based on the category of staff that uses the system
 - c) Can be categorized based on the type of information handled by the system
 - d) Information collected through Health Information Systems are considered value assets
- 8) Tablet computers with Android Operating System and pre-loaded health apps were distributed among the public health nursing officers. Most of the nurses found Android system easy to use. However, they found health apps to be less user friendly. This created negative attitude among them and less intention to use. When the final evaluation on actual level of use was carried out, the Ministry of Health found only 45% of the public health nursing officers used the tablet computer. What theory/model can explain the scenario most appropriately?
- a) Normalization Process model
 - b) Diffusion of Innovation theory
 - c) Technology Acceptance model
 - d) Planned behavior theory
- 9) What is **NOT** an identified feature of “Big data”
- a) Velocity of data generation
 - b) Variety of collected data
 - c) Variance of collected data
 - d) Volume of collected data
- 10) What is **TRUE** about personalized medicine
- a) They are prescribed using electronic prescription systems
 - b) Based on previous prescriptions of the patient
 - c) Big data is not used to create personalized medicine
 - d) Genomic data is used to identify the best suited drugs for an individual

Student Reg. No:

Part B –Fill in the blanks**(10 marks)**

Fill in the blanks by using given words.

1. An example for a global digital health good is.....
2. describes how a message is encoded for transmission and then decoded by the receiver
3. of data describes the extent to which data report the truthfull and free of identifiable errors.
4. Type of health record managed by the patients is called
5.describes the extent to which data are useful for the purposes for which they were collected and do not provide unneeded information
6. A classification system widely used to classify the diseases
7.denotes the recording of data in the same way and with the same meaning across records
8.extends from the birth to death of a person
9.is the meaningfully processed form of

(Accuracy, timeliness, consistency, Computerized Order Entry, Personal Health Record(PHR), granularly, currency, Electronic Medical Record (EMR), (Electronic Health Record) EHR, precision, Relevancy, currency, information, data, knowledge, SNOMED-CT, ICD-10, OpenMRS, Information theory, Activity theory, Information infrastructure theory, ICPC-2)

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Part C - Short Answer Questions**(60 marks)**

Answer within the given space.

Question 01

1.1 Outline the person-based information vs aggregate information giving **two (02)** examples from ward procedures

(6 marks)

	Person-based information	Aggregate information
Explanation
Examples

1.2 Write **four (04)** Information Governance Principles for Healthcare which have publish by

American Health Information Management Association (AHIMA)

(4 marks)

- I.
- II.
- III.
- IV.

1.3 List **four (04)** facets of data quality

(4 Marks)

- I.
- II.
- III.
- IV.

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1.4 Write **three (03)** usages of “Health statistical reports” (06 marks)

- I.
- II.
- III.

Question 02

Transforming the healthcare with introducing of health information technology has become a challenge due to its nature of having a high risk for failure. To overcome this challenges, Health care informatics projects are required successful projects, products and the change management.

2.1. List **four (04)** features of a project (4 Marks)

- I.
- II.
- III.
- IV.

2.2. Explain the terms of “Projects management”, “Products Management” and “Change management” (6 marks)

Projects Management
Product Management
Change management

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2.3. List the steps in a project lifecycle. (4 marks)

- I.
- II.
- III.
- IV.

2.4. Write the **six (06)** phases in the process of change (6 Marks)

- I.
- II.
- III.
- IV.
- V.
- VI.

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Question 03

3.1 Define the terms “Electronic Medical Record (EMR)” and “Electronic Health Record (EHR)” (6 Marks)

Electronic Medical Record (EMR)
Electronic Health Record (EHR)

3.2 Write main **two (02)** differences between Electronic Medical Record (EMR) and Electronic Health Record (EHR) (4 Marks)

I.

II.

3.3 Explain the term “Hospital Information System/ (HIS)” (2 marks)

.....

3.4 List **four (04)** Sub modules of a regular Hospital Information System/ (HIS) and their main function (8 marks)

I.

II.

III.

IV.

