



MACHAKOS UNIVERSITY

University Examinations For 2018/2019 Academic Year

SCHOOL OF HEALTH SCIENCES

DEPARTMENT OF PUBLIC AND COMMUNITY HEALTH

FIRST YEAR SECOND SEMESTER EXAMINATION FOR

DIPLOMA IN HEALTH RECORDS AND INFORMATION TECHNOLOGY

DHR 009: HEALTH INFORMATION SYSTEMS

DATE: 29/4/2019

TIME: 2:00 – 4:00 PM

INSTRUCTIONS:

This paper consists of two sections A and B

Section A is compulsory and has Part (i) and part (ii)

Section B choose any two (2) questions

SECTION A: COMPULSORY

PART (I) MULTIPLE CHOICE QUESTIONS - 10 MARKS

1. One of the following are Ministry of health primary data sets;
 - a) Antenatal care register and immunization report
 - b) Child welfare clinic register and under five outpatient morbidity report
 - c) Family planning Register and HIV summary report
 - d) National integrated for RH, HIV/AIDS, Malaria, TB and child nutrition Report
2. The following are MOH primary data
 - a) Health care report and age groups
 - b) Patient vital signs and health care reports
 - c) Daily ward census and hospital workload report
 - d) patient's names and daily ward census

3. Health status indicators include;
 - a) Levels of mortality and morbidity
 - b) Master patients' index and wellbeing.
 - c) Patient's names and ethnic group
 - d) Health care statistics and disease lists
4. The components of input category of Health Information System are
 - a) production, dissemination and use of information
 - b) Personnel, financing, logistics support and information technology
 - c) Socioeconomic status and ethnic groups
 - d) civil registration and population surveys
5. Ministry of Health (MOH) 711 B Integrated tool is for which report?
 - a) information and communications technology (ICT)
 - b) Diagnostic Disease Index, HIV/AIDS, Malaria, and TB Report
 - c) National integrated for RH, HIV/AIDS, Malaria, TB and child nutrition Report
 - d) Immunization and Vitamin "A" summary report
6. The components of Information technology are
 - a) Medical and surveillance report
 - b) computer hardware and programs software
 - c) Immunizations and diagnostic tests
 - d) Personnel and financing services
7. The Ministry of Health Report form forms includes;
 - a) MOH 105 service delivery form and inpatient register
 - b) MOH 364 sexual gender-based violence and child violence register
 - c) MOH 505 integrated disease surveillance and response form
 - d) MOH 405 Antenatal Care and postnatal Register
8. Some of the specific information sources include;
 - a) Patient's tests and summary reports
 - b) Radiology tests and logistics support
 - c) Immunizations and supplies
 - d) Patient Allergies and medical Histories

9. The hospital administrative data include
- a) Revenue and medical history
 - b) Drugs supply and diagnostic tests
 - c) Personnel and surveillance report
 - d) Revenue and medical supplies
10. The elements of data management are
- a) patient treatment and data collection
 - b) Data storage and diagnostic report
 - c) data processing, dissemination and medical tests
 - d) Data collection, data storage and data processing

PART (II) SHORT ANSWER QUESTIONS -20 MARKS

QUESTION ONE

- a) Define the following terms (3 marks)
- i) Data mining
 - ii) Information
 - iii) Routine health information system
- b) Describe briefly the concepts of;
- i) Integration application in healthcare
 - ii) Interoperability application in healthcare (2 marks)
 - c) State the application of data mining in healthcare (3 marks)
- d) Explain the three (3) health service components of a health information system (3 marks)
- e) Discuss the three roles of medical decision-support systems in patient care (3 marks)
- f) State the three (3) benefits of DHIS 2 in Kenyan health system (3 marks)
- g) Discuss some three (3) major risks to personal information (3 marks)

SECTION B CHOOSE ANY TWO QUESTIONS

QUESTION TWO

- a) Explain the benefits of complete interoperability in healthcare (10 marks)
- b) Describe the characteristics of health care information (10 marks)

QUESTION THREE

- a) Describe system security principles in healthcare information (10 marks)
- b) Describe 10 types of the MOH primary data set and their respective code (10 marks)

QUESTION FOUR

- a) Explain how different stakeholders use health information (10 marks)
- b) Describe importance of health information data quality (10 marks)

QUESTION FIVE

- a) Discuss the benefits of ICT in healthcare (10 marks)
- b) Describe the types of Hospital specific information systems (10 marks)