



Qualification Code : 091906T4
Qualification : Health Records Management and IT Level 6
Unit Code : HE/OS/HR/CR/04/6/A
Unit of Competency : Apply Medical Instrumentation

WRITTEN ASSESSMENT

Time: 3 Hours

INSTRUCTIONS TO CANDIDATE

1. This paper has two sections A and B
2. You are provided with a separate answer booklet
3. Marks for each question are as indicated
4. Do not write on the question paper

This paper consists of FOUR (4) printed pages. Candidates should check the question paper to ascertain that all the pages are printed as indicated

SECTION A (40 Marks)

Answer ALL the questions in this section

1. Highlight four reasons why accuracy and precision are important considerations when selecting and using medical instruments in healthcare settings. (4 Marks)
2. Outline a step-by-step protocol for evaluating the accuracy of a blood pressure monitor compared to a mercury sphygmomanometer. (4 marks)
3. Highlight four challenges healthcare facilities might face when integrating data from medical instruments (e.g., blood pressure monitors) into an EHR system. (4 marks)
4. Outline FOUR roles of health records technicians in ensuring patient safety related to the use of medical instruments. (4 marks)
5. Identify four emerging technologies in medical instrumentation that have the potential to transform healthcare delivery. (4 marks)
6. Highlight FOUR ways in which bar-code scanning improves accuracy and efficiency in medication administration and patient identification (4 marks)
7. Outline FOUR uses of telehealth tools in patient care in a health facility. (4 marks)
8. Identify FOUR steps that health records professionals should take to document and verify test results for patient records. (4 marks)
9. Enumerate FOUR importance of accurate data entry and integration for patient care and record keeping. (4 marks)
10. Highlight FOUR ways in which medical instruments such as digital thermometers, blood pressure monitors, and pulse oximeters interface with electronic health records (EHR) systems. (4 marks)

SECTION B (60 Marks)

Answer any three questions in this section. (Question 11 is compulsory)

11. Case Study: Integration of Telehealth Technology

Jane is a 68-year-old patient with chronic obstructive pulmonary disease (COPD) who recently started using a home spirometer to monitor her lung function. She participates in regular telehealth consultations with her pulmonologist. Discuss the following aspects based on this case:

- a. Discuss **TWO** methods Jane's pulmonologist can use telehealth technology to monitor her COPD using spirometry data. (4 marks)
- b. Explain **TWO** importance of accurate data transmission and integration into her electronic health record (EHR). (4 marks)
- c. Enumerate **FOUR** ways how health records professionals can support Jane in understanding and using the home spirometer effectively. (4 marks)
- d. Explain **TWO** strategies that can be employed to ensure Jane's compliance with spirometry monitoring and data recording (4 marks)
- e. Discuss Two importance of maintaining patient privacy and data security in telehealth interactions. (4 marks)

12. Integration of Medical Devices with Electronic Health Records (EHR):

- a. Describe the process of integrating data from medical instruments such as digital blood pressure monitors, pulse oximeters, and glucometers into an Electronic Health Record (EHR) system. (10 marks)
- b. Discuss the challenges and benefits of seamless integration for healthcare providers and patient care. (10 marks)

13. Role of Barcode Technology in Medication Management:

- a. Explain how barcode technology is used in medication management within healthcare settings. (10 marks)
- b. Discuss its impact on patient safety, medication administration accuracy, and the role of health records professionals in ensuring effective use and documentation of barcode scanning processes. (10 marks)

14. Quality Assurance in Point-of-Care Testing (POCT):

- a. Explain FIVE importance of quality assurance measures in Point-of-Care Testing (POCT) devices, such as glucometers and hemoglobin analyzers. (10 marks)
- b. Discuss five roles of health records professionals in ensuring compliance with regulatory standards, documenting test results accurately, and maintaining quality control practices in POCT settings. (10 marks)

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