

091905T4HRI

HEALTH RECORDS AND INFORMATION TECHNOLOGY LEVEL 5

HE/OS/HR/CC/04/5/A

APPLY MEDICAL INSTRUMENTATION

NOV/DEC 2023



**TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION
COUNCIL (TVET CDACC)**

WRITTEN ASSESSMENT

Time: 3 hours

INSTRUCTIONS TO CANDIDATES

1. This paper has three sections **A**, **B** and **C**.
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 7 printed pages

**Candidates should check the question paper to ascertain that all pages
are printed as indicated and that no questions are missing.**

SECTION A: (20 MARKS)

Answer ALL questions in this section.

Each question is 1 mark

1. The very first thing to do when purchasing a new instrument is to:
 - A. Sterilize the instrument
 - B. Wash the instrument
 - C. Read the manufacturer's instructions for processing
 - D. Place it in storage until needed
2. Which instrument is used to examine the ears?
 - A. otoscope
 - B. ophthalmoscope
 - C. stethoscope
 - D. speculum
3. The general terms for any instrument used for viewing or examining hollow body parts;
 - A. scope
 - B. stethoscope
 - C. speculum
 - D. otoscope
4. The equipment used to store drugs and reagents at low temperature is;
 - A. Water bath
 - B. Cool box
 - C. Refrigerator
 - D. Ice boxes
5. Which of the following is least used as filing equipment in a busy Health Records and Information Library?
 - A. Kick Stool
 - B. Pigeon holes
 - C. Filing Cabinet
 - D. Filing Shelves

6. The equipment used to see specimens that cannot be seen with the naked eye;
 - A. Microscope
 - B. Eyepiece
 - C. Magnifying lenses
 - D. Balance
7. The equipment used to measure the amount of matter in an object?
 - A. Graduated cylinder
 - B. Thermometer
 - C. Balance
 - D. Ruler
8. A tool that is used to store inpatients medical records;
 - A. Cabinet
 - B. File
 - C. Master register
 - D. Internet
9. A medical instrument for measuring blood sugar;
 - A. Glucometer
 - B. Spygmanometer
 - C. Stethoscope
 - D. Microscope
10. Oxygen levels in the body are measured using;
 - A. Oxymeter
 - B. Stethoscope
 - C. Gas cylinder
 - D. Haemometer
11. Sterilization of medical instruments is done using;
 - A. Boiler
 - B. Autoclave
 - C. Dryer
 - D. Heater

12. The digital thermometers are;
- A. Thermo guns
 - B. Digital thermometers
 - C. Automated thermometers
 - D. Thermocouples
13. A stethoscope is used to measure;
- A. Pressure
 - B. Oxygen levels
 - C. Pulse rate
 - D. Body temperature
14. The instrument used to measure foetal heart rate;
- A. Foetal Doppler
 - B. Stethoscope
 - C. Oxymeter
 - D. BP machine
15. Which of the following is the odd one out?
- A. X-ray machine
 - B. CT scan
 - C. MRI
 - D. Microscope
16. One of the following parameters is done in a medical laboratory;
- A. Temperature
 - B. Blood pressure
 - C. Blood glucose
 - D. Ultrasound
17. One of the following is used for drug administration;
- A. Syringe and needle
 - B. Forceps
 - C. Tongue depressor
 - D. Otoscope

18. Electronic health records system is found in a;
- A. Health records office
 - B. Theatre
 - C. Casualty
 - D. Morgue
19. Medical instruments should be repaired by;
- A. Radiographers
 - B. Medical engineers
 - C. IT technicians
 - D. Health records officers
20. One of the following is not a department in a health facility;
- A. Records
 - B. Pharmacy
 - C. Nutrition
 - D. Instrumentation

SECTION B: (40 MARKS)

Answer ALL questions in this section.

21. State TWO equipment used in analysis of BMI and give their functions. (4 Marks)
22. State any FOUR clinical conditions that require the use of medical instruments for their diagnosis (4 Marks)
23. In a health facility, medical laboratory is one of the departments where pathology requests are being sent for testing. List any FOUR equipment found in a medical laboratory (4 Marks)
24. Glucometers are essential tools in a health facility. State FOUR Significance of Glucometer (4 Marks)
25. When a patient goes for a consultation, a medical practitioner may require further investigations from CT scan reports. State FOUR advantages of a CT SCAN (4 Marks)
26. Cancer has major impact on society in Kenya and across the world. Identify FOUR medical instruments to be used to diagnose cancer (4 Marks)
27. The weitlaner retractor is one of the popular instruments in the theatre. List any other FOUR medical instruments used in a theatre (4 Marks)
28. Highlight FOUR equipment found in a health records office (4 Marks)
29. Magnetic Resonance Imaging (MRI) is a vital tool in modern medicine. List any FOUR significance of MRI (4 Marks)
30. What is the difference between diastolic and systolic pressure (4 Marks)

SECTION C: (40 MARKS)

Answer any TWO questions in this section

31. For a medical equipment to function well, it requires good maintenance.

a) Discuss FIVE ways of ensuring medical equipment are in good performance
(10 Marks)

b) Explain FIVE factors considered when purchasing medical equipment.
(10 Marks)

32. Explain the functions of the following TEN Diagnostic and Monitoring Instruments
(20 Marks)

- a) Stethoscope
- b) Sphygmomanometer
- c) Glucometer
- d) Autoanalyzer
- e) X-ray
- f) Computed tomography
- g) Pacemaker
- h) Ophthalmoscope
- i) Endoscope
- j) Spirometer

33. Describe FIVE medical instruments used in diagnosis and management of COVID 19 giving its use
(20 Marks)

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