

091206T4PTT

PERIOPERATIVE THEATRE TECHNOLOGY LEVEL 6

HE/OS/TT/CR/04/6/A

Provide Perioperative Theatre Technical Services

July/Aug 2023



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

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 indicated.
4. Do not write on the question paper.

This paper consist of FOUR printed pages

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

SECTION A: [40 MARKS]

Answer all questions in this section

1. You are working in theatre where you are supposed to provide perioperative theatre services, which FIVE personal protective equipment can you use in your line of duty? (5 marks)
2. The surgical area is divided into three regions/areas that have specific physical activities performed in each area. Outline these THREE areas. (3 marks)
3. State THREE qualities of lighting used in the operating room to prevent eye fatigue and promote proper illumination of the surgical site. (3 marks)
4. An anesthesia machine is one of the critical equipment in an operating theatre. Explain THREE main parts of the machine. (6 marks)
5. Identify THREE operating table accessories you would utilize during an operation. (3 marks)
6. State THREE risks associated with the use of diathermy machine in surgery. (3 marks)
7. State THREE queued routine jobs done to keep the operating theatre well stocked and maintained. (3 marks)
8. Outline FIVE surgical instruments found in a craniotomy set. (5 marks)
9. Highlight TWO reasons why proper patient positioning on the operation table is important. (2 marks)
10. Name TWO safety features of the anesthesia machine. (2 marks)
11. You are assembling an orthopedic set. Highlight FIVE key areas that you will inspect on the surgical instruments. (5 marks)

SECTION B: [60 MARKS]

*Answer any **three** questions in this section.*

12. After the patient leaves the operating room, the environmental service personnel should be available to perform room cleaning and documentation.
- a) Describe any **FOUR** equipment and apparatus you would decontaminate in readiness for the next procedure. (16 marks)
 - b) Explain **FOUR** reasons why documentation of theatre technical services is important. (4 marks)
13. A student technologist is attached to your unit and requests you to review the principles of electro surgery with her.
- a. Outline **THREE** uses of electro surgery (3 marks)
 - b. Describe the **FOUR** major components of electro surgery (12 marks)
 - c. Explain **FIVE** safety measures that you will apply in use of an electrosurgical unit to prevent injury to the patient (5 marks)
14. You anticipate significant blood loss during surgery and plan ahead by confirming that the suction machine is efficiently functional.
- a. Describe the steps of pretesting specific components of the suction machine. (16 marks)
 - b. If a faulty suction machine is identified during a performance check, which steps will you take? (4 marks)
15. An operation theatre technician focuses on preparing the theater environment for anesthesia with the primary objective of maximizing patient safety during the perioperative period.
- a. Explain the use of the following anesthesia machine accessories. (6 marks)
 - i. Peripheral nerve stimulator
 - ii. Capnograph
 - iii. ECG monitor
 - iv. Stylet
 - v. Temperature Probe
 - vi. Pulse oximeter
 - b. Describe the process of checking the functionality of the following components of an anesthesia machine. (14 marks)
 - i. Flow meters

- ii. Vaporizers
- iii. Breathing circuits
- iv. Ventilator
- v. Safety devices
- vi. Gas supply and pressure regulators
- vii. Waste gas scavenging system

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