

091205T4PTT

PERIOPERATIVE THEATRE TECHNOLOGY 5

HE/OS/TT/CR/03/5/A

Maintain Operation Theatre Instruments and Apparatus

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)

*Attempt **all** questions in this section.*

Each question carries one Mark

1. The correct sequence of donning Personal Protective Equipment is:
 - A. Gown, mask, goggles, gloves
 - B. Gown, gloves, goggles, mask
 - C. Mask, goggles, gown, gloves
 - D. Goggles, mask, gloves, gown
2. A good practice to observe when manually cleaning operating room theatre instruments is:
 - A. Strictly use high PH detergents to ensure all microorganisms are killed
 - B. Always ensure you clean delicate and general instruments together to save on hospital resources
 - C. Inspect all instrument surfaces to ensure they are visibly clean and free of stains and tissue.
 - D. Ensure you always use low PH detergents only
3. Used surgical instruments should be soaked in sodium hypochlorite solution for how long:
 - A. 30 minutes
 - B. 5 minutes
 - C. 45 minutes
 - D. 10 minutes
4. Which one of the following is a characteristic of a container for the safe disposal of sharp objects?
 - A. Puncture proof and break resistant
 - B. Made of good water absorbent material
 - C. Have an opening large enough for someone to reach in
 - D. Always be full before discarding
5. The main function of a diathermy machine is:
 - A. Cut through tissue and coagulation properties
 - B. For cutting through tissues and bones only
 - C. Improve the view of the surgical field
 - D. Exploring or examining anatomy as well as fistula

6. Prolonged use of the same disinfectant solution while cleaning instruments may cause:
 - A. Decreased volume of the solution
 - B. Decreased soiling of the solution
 - C. Decreased likelihood of instruments corrosion
 - D. Decreased effectiveness of the solution
7. The suction machine in your operating room has malfunctioned. Which department will you hand it over?
 - A. Biomedical engineering department
 - B. Hospital administration department
 - C. The purchase and supply department
 - D. Medical imaging department
8. The proper way of storing packs after sterilization is:
 - A. Stack the together on the shelf
 - B. Store the under sinks to save space
 - C. Store them on clean and dump shelves
 - D. Store them in closed and dry cabinets
9. On the surgical instruments life-cycle the next step after purchasing operation theatre instruments is:
 - A. Proper testing
 - B. Proper handling
 - C. Proper inspection
 - D. Maintenance and repair
10. The appropriate method of sterilizing rubber tubing's in theatre is;
 - A. Dry heat
 - B. Steam heat
 - C. Pressure autoclave
 - D. Gas sterilization
11. When assembling instruments for sterilization an operation theatre technician should:
 - A. Place heavy instruments such as retractors on the top for easy access
 - B. The curvature of different instruments should be facing in the same directions
 - C. Memorize what should be packed in all type of surgical sets always

- D. Similar instruments should not be grouped together
12. The correct sequence of disinfecting instruments after use is:
- A. Sodium hypochlorite solution then soapy water then clean water
 - B. Clean water then Sodium hypochlorite solution then soapy water
 - C. Sodium Hypochlorite solution then clean water then soapy water
 - D. Soapy water, water, and then Sodium hypochlorite.
13. Before packing the surgical instruments, you should ensure the set is:
- A. Complete, dry, clean with no stains
 - B. Wet, wrap with two towels
 - C. No tray and stained
 - D. None of the above
14. Which of the following is an absorbable suture?
- A. Nylon, ethbond
 - B. Silk, vicryl
 - C. Prolene, monocryl
 - D. Vicryl, catgut
15. Some of the characteristics of theatre lights include:
- A. Do not form shadow
 - B. Produce deem light
 - C. Can fall easily
 - D. Unable to rotate
16. One of the appliances is used in positioning of patients during an operation.
- A. Bed cradle, bed blocks
 - B. Heater, pulley
 - C. Liple mattress, heal pad
 - D. Head ring, sand
17. Guidelines to be used when assembling Theatre instrument and apparatus is:
- A. World Health Organization policies.
 - B. User manual.
 - C. Hospital standard practices.
 - D. Standard Operating Processes

18. Give a reason why humidity in the operating room should be maintained between 55 and 60%.
- A. To provide maximum comfort to personnel.
 - B. To provide maximum comfort to the patient.
 - C. To reduce the explosion hazard.
 - D. To promote sterile conditions.
19. While assembling anesthesia machine, connection to gases is key. Which of the following medical gases is matched incorrectly with the standard color of its holding canister?
- A. Air: Yellow
 - B. Oxygen: Green
 - C. Carbon Dioxide: blue
 - D. Nitrous Oxide: Orange
20. An instrument that will be very essential in craniotomy and burr hole is:
- A. Joker
 - B. Mosquito artery forceps
 - C. Gingli saw
 - D. Rake retractors

SECTION B: (40 MARKS)

Answer all questions in this section.

21. State FOUR important parameters of steam sterilization that must be considered to ensure the process of sterilization is successful. (4 marks)
22. List FOUR personal protective equipment that you will don at the beginning of your shift. (4 marks)
23. Inspection of apparatus during the cleaning process is important. Identify FOUR characteristics you would inspect. (4 marks)
24. Assembling theatre equipment is usually done after cleaning instruments. Outline FOUR tools used in assembling of theatre equipment. (4 marks)
25. Highlight FOUR principles for arranging instruments into sterilizing chambers. (4 marks)
26. List FOUR advantages for maintaining the instrument storage records in the CSSD. (4 marks)
27. Describe the color-coded segregation of waste before disposal. (4 marks)
28. List FOUR examples of surgical sets in an operating theatre. (4 marks)
29. Outline FOUR incidences when you should avoid the use of sterilized instruments. (4 marks)
30. Use of disposable items has become popular in operation theaters. State FOUR advantages of using such items. (4 marks)

SECTION C: (40 MARKS)

Answer any two questions in this section.

31. Discuss FIVE precautions you will observe as a theatre technician when handling electrical instruments. (20 marks)
32. Before an instrument can be used, a whole range of measures must be taken to prevent it from being a danger to the patient and user. Discuss the recommended ways of handling operating theatre instruments and apparatus. (20 marks)
33. As a theatre technician, you have been tasked to assemble instruments for surgery. Describe in details instruments under each category and the purpose of each instrument mentioned below.
- a) SIX retracting instruments. (6 marks)
 - b) SIX cutting and dissecting instruments. (6 marks)
 - c) FOUR clamping and occluding instruments. (4 marks)
 - d) FOUR grasping and holding instruments. (4 marks)

END