



BRAINWARE UNIVERSITY

Term End Examination 2024-2025

Programme – B.Sc.(OTT)-2021/B.Sc.(OTT)-2022

Course Name – Basic Administration and Equipment Maintenance

Course Code - BOTTE603

(Semester VI)

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) Select the following is a key component of equipment maintenance in healthcare:
 - a) Regular inventory audits
 - b) Ad hoc equipment checks
 - c) Scheduled calibration and servicing
 - d) Random staff assignments
- (ii) Recall In healthcare accounting, the term "accounts payable" refer to:
 - a) Amounts owed for goods or services purchased on credit
 - b) Revenue generated from patient services
 - c) Operational expenses related to utilities
 - d) Payroll expenses for medical staff
- (iii) Recall the primary purpose of tracking equipment maintenance in healthcare facilities.
 - a) To assign blame for equipment failures
 - b) To increase administrative burden
 - c) To ensure equipment is safe and functional
 - d) To discourage staff engagement
- (iv) Identify the term "accounts receivable" refer to:
 - a) Revenue generated from patient services
 - b) Amounts owed for goods or services purchased on credit
 - c) Operational expenses related to utilities
 - d) Payroll expenses for medical staff
- (v) Select the primary purpose of documenting equipment maintenance procedures in healthcare.
 - a) To satisfy regulatory requirements
 - b) To increase administrative workload
 - c) To create unnecessary paperwork
 - d) To discourage staff engagement
- (vi) Select the department, that is typically responsible for initiating a purchase order in a healthcare facility.
 - a) Human Resources
 - b) Accounting
 - c) Purchasing
 - d) Marketing
- (vii) Recall Economic issues in healthcare management primarily involve:
 - a) Maximizing patient satisfaction
 - b) Minimizing equipment costs
 - c) Reducing staff turnover
 - d) Increasing medical research funding
- (viii) In basic administration, the primary responsibility of an operating theatre manager.

- a) Conducting surgeries
- b) Coordinating with suppliers
- c) Managing surgical instruments
- d) Ensuring patient safety
- (ix) Choose the regulatory body often sets guidelines for the monitoring and maintenance of medical equipment.
 - a) WHO (World Health Organization)
 - b) FDA (Food and Drug Administration)
 - c) CDC (Centers for Disease Control and Prevention)
 - d) NIH (National Institutes of Health)
- (x) Relate the significance of regular calibration of medical equipment.
 - a) To ensure accurate measurements and readings
 - b) To extend the warranty period of the equipment
 - c) To decrease the need for routine maintenance
 - d) To minimize the need for equipment replacement
- (xi) Relate the following is a common method for monitoring the performance of medical equipment.
 - a) Visual inspection
 - b) Auditory analysis
 - c) Taste testing
 - d) Olfactory assessment
- (xii) Choose the meaning of "uptime" refer to in the context of medical equipment maintenance.
 - a) The time taken to repair equipment
 - b) The period during which equipment is operational
 - c) The time spent on routine inspections
 - d) The duration between equipment replacements
- (xiii) Tell the type of maintenance involves addressing equipment issues as they arise.
 - a) Preventive maintenance
 - b) Corrective maintenance
 - c) Predictive maintenance
 - d) Routine maintenance
- (xiv) Select the primary goal of preventive maintenance for medical equipment :
 - a) To repair equipment after a breakdown
 - b) To minimize the likelihood of equipment failure
 - c) To maximize equipment downtime
 - d) To delay the replacement of equipment
- (xv) Choose the ECG artifact is caused by patient movement.
 - a) Baseline wander
 - b) Muscle artifact
 - c) AC interference
 - d) Somatic tremor

Group-B

(Short Answer Type Questions)

3 x 5=15

- 2. List the key components of a purchase order in healthcare administration? (3)
- 3. Illustrate how do healthcare administrators ensure compliance with safety regulations during equipment maintenance? (3)
- 4. Explain what are the common challenges encountered in implementing a maintenance protocol for medical equipment? (3)
- 5. Interpret the key components of an ECG machine, and how do they contribute to accurate signal acquisition? (3)
- 6. Evaluate the importance of regularly checking and cleaning the filters in ventilators and CPAP machines for ensuring optimal air quality and device performance. (3)

OR

Summarize the potential risks associated with improper maintenance of infusion pump battery packs and propose strategies for ensuring battery longevity and performance. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Tell How do you ensure compliance with purchasing regulations when procuring medical equipment? (5)
8. Justify What is the role of a defibrillator in the operating theater, and how is it used to manage cardiac emergencies during surgery? (5)
9. Explain how do you perform routine checks and maintenance tasks on a defibrillator to ensure its readiness for use in emergency situations? (5)
10. Predict how do you troubleshoot common issues encountered with defibrillator operation, such as battery failure or electrode detachment. (5)
11. Enumerate the importance of adherence to maintenance protocols in ensuring the reliability of medical equipment during surgical procedures. (5)
12. Evaluate the purpose of an arterial blood gas (ABG) machine in the operating theater, and how does it contribute to patient care during surgery? (5)

OR

Illustrate the importance of proper handling and storage of arterial blood samples before analysis in an ABG machine. (5)

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