Up-to-date Questions and Answers from authentic resources to improve knowledge and pass the exam at very first attempt. ----- Guaranteed.

KILL EXAMS

BONENT-CHBT Dumps
BONENT-CHBT Braindumps
BONENT-CHBT Real Questions
BONENT-CHBT Practice Test
BONENT-CHBT Actual Questions

PASS

killexams.com

Nursing

BONENT-CHBT

BONENT Certified Hemodialysis Bio-Medical Technician (CHBT)

ORDER FULL VERSION

https://killexams.com/pass4sure/exam-detail/BONENT-CHBT

Question: 518

A water treatment system's softener resin bed is regenerating more frequently than expected, increasing operational costs. The technician confirms normal water hardness levels. What is the most likely cause?

A. Resin bed contamination
B. Improper brine tank settings
C. Leaking bypass valve
D. Faulty regeneration timer

Answer: D

Explanation: A faulty regeneration timer is the most likely cause, as it can trigger unnecessary regeneration cycles despite normal water hardness. Improper brine tank settings would affect regeneration efficacy, not frequency. A leaking bypass valve would cause untreated water to bypass, not frequent regeneration. Resin bed contamination would reduce softening capacity, not trigger regenerations.

Question: 519

A dialysis clinic's biohazard waste pickup is delayed, causing overflow in storage. What is the Hemodialysis Bio-Medical Technician's best temporary solution to ensure safety?

A. Dispose of excess waste in a municipal landfill
B. Store overflow in a secure, labeled secondary containment area
C. Incinerate waste on-site to reduce volume
D. Mix biohazard waste with regular waste to save space

Answer: B

Explanation: Storing overflow biohazard waste in a secure, labeled secondary containment area ensures safety and compliance with regulations during a pickup delay. Disposing in a municipal landfill violates EPA rules. On-site incineration is not permitted without a licensed facility. Mixing with regular waste is illegal and unsafe.

Question: 520

A physical plant inspection reveals that the emergency lighting in the dialysis treatment area fails to activate during a simulated power outage. What is the most critical action to ensure patient safety?

A. Conduct dialysis treatments during daylight hours only
B. Contract a vendor for immediate repair of the lighting system
C. Install temporary portable lighting units

D. Update the facility’s emergency evacuation plan

Answer: B

Explanation: Emergency lighting is essential for patient safety during power outages, ensuring visibility for staff to manage dialysis treatments. Contracting a vendor for immediate repair addresses the root cause and restores compliance with CMS quality requirements. Conducting treatments during daylight hours is impractical and disrupts care. Temporary lighting units are a short-term fix but not a substitute for permanent repairs. Updating the evacuation plan does not address the immediate lighting issue.

Question: 521

During a QAPI meeting, the biomedical team identifies a recurring issue with dialysis machine calibration errors affecting treatment accuracy. As the Hemodialysis Bio-Medical Technician, you are tasked with developing a performance improvement plan. Which step should you prioritize to address this issue effectively under QAPI principles?
A. Immediately replace all dialysis machines with newer models
B. Conduct a root cause analysis to identify contributing factors
C. Increase the frequency of machine maintenance checks
D. Train staff on new calibration software without further investigation

Answer: B

Explanation: Conducting a root cause analysis to identify contributing factors is the most effective initial step under QAPI principles, as it ensures a systematic approach to identifying the underlying causes of the calibration errors. This aligns with QAPI’s focus on data-driven decision-making and continuous improvement. Immediately replacing all dialysis machines with newer models is premature without understanding the issue’s cause. Increasing the frequency of machine maintenance checks may be a reactive measure but does not address the root cause. Training staff on new calibration software without further investigation assumes the problem is solely user-related, which may not be accurate.

Question: 522

During a routine maintenance check, a Hemodialysis Bio-Medical Technician notices that the dialysis machine's UF rate is fluctuating beyond acceptable limits. The technician suspects an issue with the TMP. What does TMP stand for, and what is its primary role in hemodialysis?

A. Total Machine Performance; it evaluates the overall efficiency of the dialysis machine
B. Transmembrane Pressure; it measures the pressure gradient across the dialyzer membrane to control ultrafiltration
C. Transitional Membrane Potential; it regulates the electrical charge across the dialyzer
D. Treatment Monitoring Parameter; it tracks patient vital signs during dialysis

Answer: B

Explanation: Transmembrane Pressure (TMP) is the pressure gradient across the dialyzer membrane, critical for controlling ultrafiltration (UF), the process of removing excess fluid from the patient's blood. Total Machine Performance is not a standard term in dialysis. Transitional Membrane Potential is incorrect, as it relates to electrical charges, not pressure. Treatment Monitoring Parameter is vague and does not specifically refer to TMP's role in ultrafiltration.

Question: 523

During a regulatory audit, an inspector requests documentation of physical plant maintenance for the past year. The facility's trend log shows quarterly inspections but lacks details on corrective actions for identified issues. What should you do to address this gap?

A. Create a new log with fabricated corrective action entries
B. Retrieve work orders from vendors and integrate them into the log
C. Provide a summary of inspections without corrective actions
D. Request an extension from the inspector to compile missing data

Answer: B

Explanation: Retrieving work orders from vendors and integrating them into the log is the most appropriate action, as it provides accurate documentation of corrective actions taken, ensuring compliance with audit requirements. Fabricating entries is unethical, providing incomplete summaries risks non-compliance, and requesting an extension may not resolve the documentation gap.

Question: 524

A dialysis clinic experiences a sudden failure of the water treatment system's reverse osmosis (RO) unit. During an in-service, the biomedical technician must explain the immediate action to protect patients. What is the most critical step to take?

A. Bypass the RO unit and use untreated water temporarily
B. Increase dialysate flow to compensate for water quality
C. Halt dialysis treatments until the RO unit is repaired
D. Switch to a backup carbon filtration system

Answer: C

Explanation: Halting dialysis treatments until the RO unit is repaired is critical because the RO unit removes contaminants from water used in dialysate. Using untreated water or bypassing the RO unit risks exposing patients to toxins, while increasing dialysate flow does not address water quality issues. A backup carbon filtration system alone cannot replace RO functionality, as it only removes organic compounds, not all contaminants.

Question: 525

A dialysis facility is undergoing a state inspection, and the inspector notices that the valve tags in the water treatment system are faded and partially illegible. The technician is tasked with replacing them. According to AAMI standards, what information must be included on each valve tag to ensure compliance and proper system operation?

A. Valve function, valve number, and directional flow
B. Valve function, directional flow, and maintenance schedule
C. Valve number, installation date, and component material
D. Valve type, pressure rating, and installation date

Answer: A

Explanation: According to AAMI standards, valve tags in a dialysis water treatment system must include the valve function (e.g., isolation, bypass), valve number for identification in the system schematic, and directional flow to ensure correct operation and maintenance. Valve function and directional flow are critical for operational clarity, while the valve number links to the system schematic for troubleshooting. Maintenance schedules are documented separately, not on tags. Installation date and component material or pressure rating are not required on valve tags per AAMI guidelines.

Question: 526

A dialysis clinic is outsourcing repairs for its emergency lighting system. According to CMS regulations, what documentation must the vendor provide post-repair to ensure compliance?

A. General service invoice
B. Detailed repair log and compliance certificate
C. OSHA safety compliance report
D. Verbal confirmation of repair completion

Answer: B

Explanation: CMS regulations require vendors to provide a detailed repair log and compliance certificate after repairing life safety equipment like emergency lighting to verify that the system meets regulatory standards. General invoices, OSHA reports, and verbal confirmations are insufficient for documenting compliance.

Question: 527

A dialysis clinic experiences repeated conductivity alarms on multiple machines during a single shift. The water treatment system logs show normal parameters, and the dialysate concentrate is freshly mixed. What should the technician check first to resolve this issue?

A. Calibration of the conductivity sensors on all affected machines

B. Electrical grounding of the dialysis machines
C. Temperature stability of the dialysate
D. Integrity of the concentrate delivery system

Answer: D

Explanation: Integrity of the concentrate delivery system should be checked first, as issues like air leaks or pump malfunctions can cause inconsistent dialysate mixing, leading to conductivity alarms across multiple machines. Calibration issues would likely affect individual machines, not multiple simultaneously. Electrical grounding issues would cause electrical or safety alarms, not conductivity errors. Temperature stability affects conductivity but would trigger temperature alarms if significantly off.

Question: 528

A technician is maintaining a concentrate pump and notices excessive vibration. What is the most likely cause?

A. Contaminated concentrate solution
B. Overpressurized delivery line
C. Misaligned pump shaft
D. Worn pump impeller

Answer: C

Explanation: Excessive vibration in a concentrate pump is most likely caused by a misaligned pump shaft, which disrupts smooth operation and causes mechanical stress. Contaminated concentrate solution affects dialysate quality, not vibration. An overpressurized delivery line may cause other issues but not vibration. A worn pump impeller could cause flow issues but is less likely to cause vibration than misalignment.

Question: 529

A dialysis clinic is cited by OSHA for non-compliance with the Respiratory Protection Standard (29 CFR 1910.134) during maintenance tasks involving aerosolized chemicals. What must the biomedical technician include in a corrective action plan?

A. Quarterly training on chemical handling only
B. Monthly replacement of respirator cartridges
C. Annual fit testing for respirators and medical evaluations
D. Weekly inspection of chemical storage areas

Answer: C

Explanation: OSHA’s Respiratory Protection Standard (29 CFR 1910.134) requires annual fit testing for respirators and medical evaluations for employees exposed to aerosolized chemicals. Replacing cartridges monthly is not a universal requirement. Training on chemical handling is insufficient without respirator-

specific training. Weekly storage inspections do not address respiratory protection.

Question: 530

A dialysis facility's water treatment system fails to meet AAMI RD52:2008 standards due to a fluoride level of 0.3 mg/L. What is the maximum allowable fluoride level, and what corrective action should the Hemodialysis Bio-Medical Technician take?

A. 0.4 mg/L; regenerate the water softener
B. 0.2 mg/L; replace the carbon filter
C. 0.4 mg/L; increase RO membrane pressure
D. 0.2 mg/L; install a deionizer

Answer: D

Explanation: AAMI RD52:2008 sets the maximum allowable fluoride level in dialysis water at 0.2 mg/L to prevent fluorosis or other toxicities. A level of 0.3 mg/L indicates that the RO system is not adequately removing fluoride, likely requiring additional treatment. Installing a deionizer is the most effective action to remove fluoride ions and ensure compliance. Replacing the carbon filter does not address fluoride, which is not removed by carbon filtration. Increasing RO membrane pressure may not resolve fluoride rejection issues, and regenerating the water softener targets hardness, not fluoride. Options C and D incorrectly cite 0.4 mg/L as the limit.

Question: 531

A dialysis facility's emergency oxygen system repair is delayed due to vendor unavailability. Per CMS guidelines, what is the maximum allowable downtime for critical life safety equipment before patient safety is compromised?

A. 12 hours
B. 36 hours
C. 24 hours
D. 48 hours

Answer: C

Explanation: CMS guidelines stipulate that critical life safety equipment, like emergency oxygen systems, must be repaired within 24 hours to prevent risks to patient safety in dialysis clinics. Downtimes of 12 hours may be insufficient for scheduling repairs, while 36 and 48 hours exceed the acceptable limit.

Question: 532

A patient develops anemia during dialysis, and the Hemodialysis Bio-Medical Technician suspects chloramine exposure. Testing shows a total chlorine level of 0.12 mg/L. Per AAMI RD52:2008, what is the maximum allowable total chlorine level, and what should be done?

A. 0.1 mg/L; increase RO membrane pressure
B. 0.1 mg/L; replace the carbon filter
C. 0.2 mg/L; disinfect the water system
D. 0.2 mg/L; install a deionizer

Answer: B

Explanation: AAMI RD52:2008 specifies a maximum allowable total chlorine level of 0.1 mg/L in dialysis water to prevent chloramine-induced hemolysis, which can cause anemia. A level of 0.12 mg/L indicates carbon filter failure. Replacing the carbon filter is the most appropriate action to remove chloramines and ensure compliance. Increasing RO membrane pressure or installing a deionizer does not address chloramines. Disinfecting the system is irrelevant to chlorine removal. Options C and D incorrectly cite 0.2 mg/L as the limit.

Question: 533

An automated reprocessing system is upgraded to include a new endotoxin filtration module. During validation, the technician finds that endotoxin levels in the rinse water remain above AAMI standards. What is the most likely cause?

A. Malfunctioning TCV measurement system
B. Inadequate germicide contact time
C. Improper installation of the filtration module
D. Overloaded water treatment system

Answer: C

Explanation: Persistent high endotoxin levels despite a new filtration module suggest improper installation of the module, preventing effective endotoxin removal per AAMI RD52 (<0.25 EU/mL). Inadequate germicide contact time affects disinfection, not rinse water quality. A malfunctioning TCV system is unrelated to endotoxin filtration. An overloaded water treatment system is possible but less likely if the issue persists post-upgrade.

Question: 534

A technician observes that the water treatment system’s ultrafilter is not reducing endotoxin levels effectively, with post-filter levels at 0.5 EU/mL. What test should be performed to diagnose the issue?

A. Water hardness test
B. RO membrane rejection rate test
C. Total chlorine residual test
D. Integrity test of the ultrafilter membrane

Answer: D

Explanation: An integrity test of the ultrafilter membrane is necessary to diagnose why endotoxin levels remain high (0.5 EU/mL, above AAMI's <0.25 EU/mL), as a breach in the membrane could allow endotoxins to pass. RO membrane testing addresses upstream issues, not ultrafilter performance. Total chlorine and water hardness tests are unrelated to endotoxin filtration.

Question: 535

During an AAMI-compliant water system validation, a biomedical technician identifies a high total dissolved solids (TDS) level in the RO output. What is the maximum acceptable TDS level per AAMI RD62:2014, and what is the most likely cause?

A. 4 ppm; RO membrane degradation
B. 10 ppm; carbon filter exhaustion
C. 10 ppm; improper pre-filter maintenance
D. 4 ppm; high feed water pressure

Answer: A

Explanation: AAMI RD62:2014 specifies a maximum TDS level of 4 ppm for dialysis water. RO membrane degradation is the most likely cause of high TDS, as it reduces the membrane's ability to reject dissolved solids. Carbon filter exhaustion affects chlorine removal, not TDS. Improper pre-filter maintenance may cause sediment issues, not TDS elevation. High feed water pressure does not directly increase TDS.

Question: 536

A dialysis unit's RO system is undergoing maintenance, and the technician must collect a water sample for AAMI endotoxin analysis. The sample is taken post-RO but pre-ultrafilter. Is this acceptable, and if not, what should be done?

A. Acceptable; proceed with testing
B. Not acceptable; delay testing until maintenance is complete
C. Not acceptable; collect pre-RO sample
D. Not acceptable; collect post-ultrafilter sample

Answer: D

Explanation: AAMI standards require endotoxin samples to be collected from the final product water, typically post-ultrafilter, as this represents the water used in dialysis. Sampling pre-ultrafilter risks missing endotoxin contributions from downstream components. Pre-RO sampling is irrelevant, and delaying testing is unnecessary if the system is operational.

Question: 537

A dialysis clinic’s emergency oxygen system requires repair, and the facility is evaluating vendors. Per AAMI standards, what is a critical criterion for selecting a vendor for medical gas system repairs?

A. General HVAC certification
B. Biomedical equipment technician certification
C. OSHA confined space training
D. Vendor’s proximity to the facility

Answer: B

Explanation: AAMI standards require vendors repairing medical gas systems, such as emergency oxygen systems, to have biomedical equipment technician certification to ensure expertise in handling critical life safety equipment. HVAC certification, OSHA training, and proximity are not specific to the technical requirements for medical gas systems.

Question: 538

A dialysis machine’s blood pump stops intermittently during treatments, but no alarms are triggered. The technician suspects an electrical issue. What test equipment is most appropriate to diagnose this?

A. Digital multimeter
B. Insulation tester
C. Power quality analyzer
D. Oscilloscope

Answer: D

Explanation: An oscilloscope is most appropriate to diagnose intermittent electrical issues in the blood pump, as it can capture transient signal disruptions that a multimeter might miss. An insulation tester checks for leakage, not intermittent failures. A power quality analyzer is better for external power issues, not internal motor control. A multimeter is less precise for intermittent problems.

KILLEXAMS.COM

Killexams.com is an online platform that offers a wide range of services related to certification exam preparation. The platform provides actual questions, exam dumps, and practice tests to help individuals prepare for various certification exams with confidence. Here are some key features and services offered by Killexams.com:

***Actual Exam Questions**: Killexams.com provides actual exam questions that are experienced in test centers. These questions are updated regularly to ensure they are up-to-date and relevant to the latest exam syllabus. By studying these actual questions, candidates can familiarize themselves with the content and format of the real exam.*

***Exam Dumps**: Killexams.com offers exam dumps in PDF format. These dumps contain a comprehensive collection of questions and answers that cover the exam topics. By using these dumps, candidates can enhance their knowledge and improve their chances of success in the certification exam.*

***Practice Tests**: Killexams.com provides practice tests through their desktop VCE exam simulator and online test engine. These practice tests simulate the real exam environment and help candidates assess their readiness for the actual exam. The practice tests cover a wide range of questions and enable candidates to identify their strengths and weaknesses.*

***Guaranteed Success**: Killexams.com offers a success guarantee with their exam dumps. They claim that by using their materials, candidates will pass their exams on the first attempt or they will refund the purchase price. This guarantee provides assurance and confidence to individuals preparing for certification exams.*

***Updated Content:** Killexams.com regularly updates its question bank and exam dumps to ensure that they are current and reflect the latest changes in the exam syllabus. This helps candidates stay up-to-date with the exam content and increases their chances of success.*

***Technical Support**: Killexams.com provides free 24x7 technical support to assist candidates with any queries or issues they may encounter while using their services. Their certified experts are available to provide guidance and help candidates throughout their exam preparation journey.*