



CSA PCP-04

Certified Medical Device Reprocessing Technician (CMDRT)

Personnel Certification Guide

January 2016

Legal Notice

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Table of Contents

Introduction	
Purpose of this Handbook	2
About CSA Group	2
Certification Contact Information	2
Certified Medical Device Reprocessing Technician (CMDRT) Occupational Certification	
About this Certification	3
Qualifications of a Certified Medical Device Reprocessing Technician.....	3
Certification Prerequisites.....	4
Training Resources.....	4
Certification Process	
Application Process	5
Program Fees	5
Payment and Refund Policy	5
Audit Process.....	6
Examination Administration and Scheduling	6
Examination Eligibility	6
Re-examination.....	7
Examination Language	7
Examination Special Accommodation	7
Certificate Issuance	7
Replacement of Certificates.....	7
Certification Period	7
Use and Requirements for Use of Certificates and Logos/Marks	7
Professional Code of Ethics.....	7
Non-Discrimination	7
Confidentiality	8
Certification Renewal	8
Recertification Requirements.....	8
Refusal to Issue or Renew a Certified Medical Device Reprocessing Technician Certificate	10
Revocation or Suspension of a Certified Medical Device Reprocessing Technician's Certification	10
Voluntary Withdrawal of Certification.....	10
Appeals, Complaints, and Disputes.....	11
Appeals Board	11
Examination Preparation and Completion	
General Description	12
Exam Content	12
Pass-Fail Standard	12
Exam Delivery	12
Examination General Instructions.....	12
Environment.....	14
Exam Security.....	14
Exam Results Notification.....	14
Examination Body of Knowledge and Blueprint	
Examination Knowledge References Documents	15
Acronyms	15
Exam Objectives.....	16
Appendix A – Certification Application Form	
Code of Ethics and Professional Conduct	
CMDRT Performance Checklist	

Introduction

Purpose of this Handbook

This handbook provides information on the requirements to achieve and renew a Certified Medical Device Reprocessing Technician (CMDRT) occupational certification.

This occupational certification guide is provided for informational purposes only. The most current version of this manual, as published on the CSA Group website, shall prevail in any case a discrepancy occurs between this version and the official released version of this guide.

About CSA Group

CSA Group is an independent, not-for-profit member-based association dedicated to advancing safety, sustainability and social good. We are an internationally accredited standards development and testing & certification organization. We also provide consumer product evaluation and education & training services. Our broad range of knowledge and expertise includes: industrial equipment, plumbing & construction, electro-medical & healthcare, appliances & gas, alternative energy, lighting and sustainability. The CSA mark appears on billions of products around the world.

As technologies continue to grow and evolve, and as the labor force grows more mobile, so has the need for a method to consistently assess, certify and measure individual worker knowledge. In response to this growing need, CSA America, Inc. develops and manages occupational certification programs to the requirements of ANSI/ISO/IEC 17024:2012 *General Requirements for bodies Operating Certification Systems of Persons*. Current operating programs include CNG (Compressed Natural Gas) Cylinder and Fuel System Inspector, Gas Laboratory Technicians, Greenhouse Gas Inventory Quantifier, Greenhouse Gas Verifier, P.I.P.E.S. Riggers, Medical Gas Piping and Systems Installation, Construction Electrician (NOC 7241) Solar Photovoltaic (PV) Systems Installation, Fenestration Installation Technician and Certified Medical Device Reprocessing Technicians.

CSA America, Inc. is an ANSI Accredited Certifier – Accreditation # 0779 for the CNG Fuel System Inspector occupational certification program.

Certification Contact Information

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Certified Medical Device Reprocessing Technician (CMDRT) Occupational Certification

About this Certification

The Certified Medical Device Reprocessing Technician (CMDRT) Occupational Certification program has been developed by CSA Group in conjunction with industry stakeholders to provide assurance that an individual possesses the competencies deemed necessary to perform the job function of a Medical Device Reprocessing Technician. The certification is designed to complement accreditation programs for verification bodies.

This certification has been developed in compliance with the ISO 17024 standard. ISO 17024 is the global benchmark for organizations operating occupational certification programs and outlines the methods and procedures required to ensure the objective and unbiased assessment of a candidate's knowledge, skills and abilities.

Passing the CMDRT examination will indicate that the candidate possesses the knowledge, skills and decision-making abilities necessary to practice the proper techniques for cleaning, disinfection and sterilization of medical instruments and devices.

Certified Medical Device Reprocessing Technicians will be periodically re-assessed to ensure they remain up-to-date on technical developments and industry changes.

The CSA Group website will contain a registry of Certified Medical Device Reprocessing Technicians.

Qualifications of a Certified Medical Device Reprocessing Technician

The Medical Device Reprocessing Technician certification tests each candidate's knowledge to ensure the candidate possesses the knowledge and skills of the CMDRT known as the minimally qualified candidate (MQC). CSA's expert committee defines the minimally qualified candidate as follows:

The MQC can perform medical device reprocessing activities without assistance, including (but not limited to):

1. Applying the principles of basic microbiology and infection prevention and control to decrease risk to both patients and staff during routine reprocessing procedures
 - a. Use Personal Protective Equipment
 - b. Follow dress code/hand hygiene practices
 - c. Maintain traffic control and
 - d. Maintain one-way workflow
2. Following written department policies and standard operating procedures
3. Handling and transporting contaminated medical devices
4. Decontaminating reusable medical devices
5. Preparing and packaging medical devices
 - a. Identify common medical instruments and other medical devices by type and function
 - b. Use appropriate packaging material
6. Inspecting instruments and devices for cleanliness, function, and damage
7. Selecting and safely using reprocessing products (e.g., detergents, low and high level disinfectants)
8. Disinfecting medical devices
 - a. Chemical
 - b. Thermal

Certified Medical Device Reprocessing Technician (CMDRT) Occupational Certification

9. Sterilizing medical devices via
 - a. Steam
 - b. Low temperature methods (gases and liquids)
10. Monitoring and documenting quality
 - a. Recognizing non-compliant reprocessing outcomes,
 - b. Respond appropriately to non-compliant reprocessing events
11. Storing and distributing medical devices
12. Recognizing and responding to occupational health and safety hazards or events
13. Troubleshooting common problems
14. Using common reprocessing equipment (e.g., washer disinfectors, ultrasonic, pasteurizers, cart washers, steam sterilizers, low temperature sterilizers, automatic endoscopic reprocessors).

Certification Prerequisites

To apply to take the CMDRT exam for certification, candidates must satisfy the following prerequisites for either Option 1, Option 2 or Option 3:

OPTION 1:

1. Education: High School Graduate or equivalent (e.g. GED); **AND**
2. Successful completion of a recognized medical device reprocessing educational program within the past two years. The educational program should include courses related to the following: Quality Systems, Infection Prevention and Control, basic microbiology, Occupational Health and Safety, Decontamination Processes, High Level Disinfection, Assembly, Sterilization of Medical Devices, Storage, Transportation and Distribution, and Flexible Endoscopes; **AND**
3. Experience: Successful completion of a practicum and/or work experience in medical device reprocessing totaling a minimum of 400 hours completed within the past two years. Evidence of experience shall be provided via a performance checklist.

OPTION 2:

1. Four thousand (4000) hours work experience in medical device reprocessing within the last 5 years. Evidence of experience shall be provided via a performance checklist

OPTION 3:

1. Twenty-five hundred (2,500) hours work experience in medical device reprocessing within the last five years **AND**
2. 150 Hours Continuous Learning in medical device reprocessing within the last five years

Evidence of experience shall be provided via a performance checklist

Please note: all information including references provided to CSA Group as part of the application process will remain confidential.

Training Resources

Medical device reprocessing (sterile processing) courses are available through a number of community colleges throughout Canada, full and part-time in-class and via distance education. Courses are also available through professional associations and may be available through private colleges or other training providers. For a list of training resources, please visit CSA Group's website at: www.csagroup.org. CSA Group does not endorse any organization and provides this list as a resource for individuals seeking additional information.

Certification Process

Application Process

To become a Certified Medical Device Reprocessing Technician an applicant must:

1. Submit all applicable fees through our website shop.csa.ca
2. Complete and the online application
3. Meet all prerequisites of the certification
4. Provide copies of applicable documentation
5. Pass a written exam

All fees are due prior to submitting the application

An e-mail address must be included as this will be the primary mode of communication regarding the steps in the certification process. Each candidate applying for certification must have their own unique, individual email address. One email address may not be used for multiple candidates.

CSA Group will process applications in the order received. If an application is incomplete, CSA Group will notify the applicant via e-mail of the deficiencies found in the application. Those deficiencies must be corrected before the candidate will be approved to take the certification exam.

All applicants will receive a confirmation e-mail regarding their registration and certification eligibility requirements.

Each new application has a life span of six (6) months from the time it is approved. The applicant must fulfill all requirements of the certification process within that time period. If an applicant is unable to complete the certification process within that period of time, the application will expire and the applicant must restart the certification process including payment of any application or examination fees.

Program Fees

Program fees for the Certified Medical Device Reprocessing Technician Certification, including application, examination, and re-examination fees, may be found on the CSA Group website. Please visit www.csagroup.org or shop.csa.ca for more information.

Payment and Refund Policy

Payment of the fees must be submitted online at shop.csa.ca CSA Group accepts Visa, MasterCard and American Express as payment in US or Canadian dollars.

When the payment has been received, candidates will receive an email from training@csagroup.org with a log in and password to CSA's eLearning system in order to complete the online application. Once the application is submitted, CSA will process the application and notification will be sent to the candidate by email regarding the next step. This email may:

- Request additional information if necessary, or
- Notify the candidate the application has been selected for audit (if selected), or
- Notice of approval to exam, and information for scheduling.

Application fees are non-refundable.

Exam fees may be refunded if a written request is submitted at least one month prior to a scheduled exam date and at least one month prior to the examination eligibility expiration date. CSA Group will retain the application fee **and** a processing fee of \$45 US or Canadian Funds.

Certification Process

Audit Process

The submission of an application indicates the applicant's agreement to comply with the terms of CSA Group's audit process. All applications are subject to an audit and a percentage of applications are randomly selected for audit. Please note that while the selection process for an audit is primarily random, CSA Group reserves the right to select any applicant to be audited at any time, including after the credential has been awarded. If the applicant fails to meet the audit requirements after attaining the credential, the applicant is not entitled to a refund.

The applicant will be notified when the application and fee is received if the submitted application is selected for audit. An audit notification will be sent to the applicant electronically and will provide detailed information on how to comply with the terms of the audit. During an audit, the applicant will be asked to submit supporting documentation required by the certification requested that may include, but is not limited to, the following:

- Copies of diploma or a global equivalent;
- Signatures from supervisor(s) or manager(s) for the skills, experience and/or responsibilities if required and documented in the experience section of the application and on the performance checklist;
- Copies of certificates and/or letters from the training institution(s) for any mandatory course if documented on the application;
- Copies of certificates and/or letters to demonstrate the required amount of professional development; and
- Other items required by the credential applied for.

Once documentation is provided, the audit should take approximately two weeks to complete. The applicant may not continue with the certification process until the applicant has complied with the audit requirements.

Once the applicant has successfully completed the audit, the applicant will be permitted to continue the certification process and will be notified of his/her examination eligibility. If the applicant fails to meet the audit requirements, a refund may be given, dependent upon the stage of the certification process at the time of the audit. (Refer to the Payment and Refund Policy section of this guidebook for more details).

Examination Administration and Scheduling

The Certified Medical Device Reprocessing Technician certification is administered through CSA Group's computer based test vendor, Kryterion, at test sites located worldwide. Once a candidate has submitted all the required information and has been approved to take the certification exam, CSA Group will send the candidate approval to exam and scheduling information to by email. Once the candidate receives their email notifications they will be able to register for the exam at the test site/date they choose. Applicants should save all examination scheduling verifications for their records. Testing sites are normally within a short driving distance from most candidates.

CSA Group uses computer-based testing (CBT) to deliver its certification examinations. However, in certain situations, paper-based tests may be offered following specific industry events or following selected training courses when a certified exam proctor is available. Please contact CSA Group for paper-based test delivery. CSA Group reserves the right to cancel a scheduled paper-based test in the event that there are fewer than 10 candidates registered.

Examination Eligibility

The examination eligibility period is six (6) months from the time an application is approved by CSA Group. Applicants may take the examination up to three times within the six month period if they did not pass on the first attempt. (As noted below, re-examination fees apply to the second and third attempts to pass the examination.)

Certification Process

Re-examination

During the examination eligibility period, an applicant may take the written examination up to three times.

Re-examination fees apply to the second and third attempts to pass the examination, and re-examination fees must be paid in full in order to schedule an exam. If the eligibility period expires without achieving a passing score, the applicant must reapply for the certification.

Examination Language

The CSA Group certification examination for Medical Device Reprocessing Technician is administered in English and French.

Examination Special Accommodation

The administration of the exam may be modified to accommodate special needs at the request of the candidate. A written request and supporting documentation must be submitted with the completed application.

Certificate Issuance

Upon confirmation of application requirements and passing the certification exam, each Certified Medical Device Reprocessing Technician will be issued a certificate indicating the valid Certification Period.

Replacement of Certificates

CSA Group may issue a replacement certificate if a Medical Device Reprocessing Technician certificate has been lost or destroyed, or if the Certified Medical Device Reprocessing Technician's name has changed, and the original certificate is returned to CSA Group.

Certification Period

CSA Group's Certified Medical Device Reprocessing Technician (CMDRT) certification is valid for a period of 5 years from the date of issue. Certified Medical Device Reprocessing Technicians are required to submit all required fees during the certification period.

Use and Requirements for Use of Certificates and Logos/Marks

Once an individual receives his/her certification letter and certificate the individual may represent themselves as a Certified Medical Device Reprocessing Technician (CMDRT) under CSA Group's Certified Medical Device Reprocessing Technician Occupational Certification Program.

Certification under this program does not authorize the certified individual any rights to the use of CSA Group's name or logo (mark). All requests for use of the mark must be made in writing and expressly authorized by CSA Group. As part of the program monitoring, CSA Group routinely reviews advertisements, catalogs, websites and promotional material to confirm compliance. Unauthorized use of the CSA Group mark constitutes cause to initiate procedures for withdrawal of certification and in severe cases may constitute grounds for legal action.

Professional Code of Ethics

Certified Medical Device Reprocessing Technicians affirm adherence to a professional code of ethics. Applicants must review and sign the Code of Ethics when applying to CSA Group for certification. A copy of the Code of Ethics is included in this handbook with the certification application.

Non-Discrimination

Participation in CSA Group's occupational certification programs are open on a non-discriminatory basis to all individuals and does not require membership in any association.

Certification Process

Confidentiality

CSA Group will maintain confidential information received from the individual and will not disclose such information to any third party without prior written approval by the individual; except in response to a subpoena, court order or other compulsory process. CSA Group will provide written notification to the individual at least five (5) business days prior to releasing.

Certification Renewal

Medical Device Reprocessing Technician certifications expire every five (5) years. Generally, CSA Group will issue a renewal notice and application form 90 days prior to the date when the certificate expires, but is the responsibility of the applicant to ensure timely renewal. Certified Medical Device Reprocessing Technicians who apply for renewal, meet the renewal requirements, and pay the required fee will receive a new certificate containing the new expiry date.

Recertification Requirements

Medical Device Reprocessing Technicians may apply for recertification up to 6 months prior to their certification expiration date and no later than 3 months after expiration. Medical Device Reprocessing Technicians applying for certification more than 3 months after expiration of their certification must fulfill all requirements of the initial certification process. There are three options to recertify:

Option 1:

Candidate must have worked a minimum of **4,000 hours** in a Medical Device Reprocessing area **AND** completed **100 hours of documented Continuous Learning** in medical device reprocessing over the five (5) year certification term

Option 2:

Candidate must have worked a minimum of **3,000 hours** in a Medical Device Reprocessing area **AND** completed **150 hours of documented Continuous Learning** in medical device reprocessing over the five (5) year certification term

Option 3:

Candidate must have worked a minimum of **2,000 hour** in a Medical Device Reprocessing area **AND** completed **150 hours of documented Continuous Learning** in medical device reprocessing over the five year certification term **AND** pass the **written exam**.

Certification Process

General Guidelines for Earning Continuous Learning (CL) Activities:

- CL activities shall be related to Medical Device Reprocessing.
- Each activity shall be a minimum of .5 hours (30 minutes).
- Each clock hour equals one CL Activity hour. Do not include time for breaks or lunch.
- Examples of CL activities include: conferences, workshops, seminars, employee in-services, formal courses (site-based or web based) at college or university, preceptorship, independent study, presentations, and writing articles or presentation of abstracts related to MDR at conferences/workshops/symposiums.
- No single activity can account for more than 50% of your total hours.

(Proof of attendance or publication is required. This may include a certificate of attendance or signature of supervisor/manager).

Please Note: All activities are subject to audit by CSA

Specific Guidelines:

1. College or University courses:
 - Course must be applicable to Medical Device Reprocessing.
 - Includes distance education courses.
 - Generally college or university courses run for one semester (4 months) and each course is equal to 36 CL hours.
 - If you are unsure of the hours allowed for a course, calculate one CL hour for every clock hour you spent attending the course.
2. Conferences, seminars, workshops:
 - Calculate the total hours attended, not including lunch or breaks (it is not necessary to break down every individual conference session attended).
3. Employee in-services:
 - Only sessions of .5 hours (30 minutes) or greater are eligible.
 - Keep a running list of the sessions attended. Ask your supervisor or educator to sign the list prior to submitting.
4. Presentations:
 - For presentations you make to co-workers on topics related to MDR.
 - You can also count preparation time. To calculate preparation time, double the presentation time (i.e. 1 hour presentation + 2 hours preparation = 3 CL hours).
 - If you repeat the exact presentation in the five-year period, it counts as a CL only once.
 - For an oral presentation to a provincial or national conference, you may claim a maximum of 10CL hours for your preparation and presentation.
 - For a poster presentation to a provincial or national conference, you may claim a maximum of 10 CL hours for your preparation and presentation.
5. Preceptorship (Mentorship):
 - The maximum number of hours you can claim under this activity is 10 hours per year.
 - The preceptorship must be in an MDR area.
 - The intent of preceptorship is to assist the novice in successfully adjusting to a new role. The novice may be a student or an already practicing MDR Technician moving into a new role or setting.
 - Hours must be supervised by a competent technician or role model and must be signed-off prior to submitting.

Certification Process

6. Writing Articles:
 - Can include publication of materials or research relevant to MDR.
 - The publication may be in a recognized professional journal or newsletter.
 - Include a copy of the publication with recertification application.
 - For an article or paper, allot 15 CL hours.
 - Research projects must have been completed during the five-year certification term.
7. Independent Study:
 - You may include reading articles and answering the test questions that appear in professional journals (i.e. CEU articles) and must provide proof of successful completion.
 - CL hours equals the number of hours as stated in the journal.

Refusal to Issue or Renew a Certified Medical Device Reprocessing Technician Certificate

CSA Group may refuse to issue or renew a Medical Device Reprocessing Technician's certificate:

1. For any of the circumstances under which CSA Group can revoke or suspend a certification; or
2. The certification to be renewed was revoked or suspended by CSA Group.

Revocation or Suspension of a Certified Medical Device Reprocessing Technician's Certification

CSA Group reserves the right to withdraw the certification of any person violating the policies and procedures of the certification process.

CSA Group may revoke or suspend a Medical Device Reprocessing Technician's certification for any of the following reasons:

1. The application was fraudulent or contained inaccurate information;
2. The person was discharged from his/her employment for incompetence, unless the person has not yet exhausted the rights of appeal available in his/her organization;
3. The person has previously had a Certified Medical Device Reprocessing Technician Certification revoked; or
4. The person has failed:
 - a. To exercise the level of care, diligence and skill that a reasonably prudent technician would be expected to exercise in a similar situation;
 - b. To act honestly, competently and with integrity; or
 - c. To meet or has contravened any condition that is set out in his or her certificate.

Upon a notice of termination of a CMDRT certification, the individual will immediately terminate the use of CSA Group's certification mark, if permission for use of the mark had been granted. Additionally, the individual will cease all use of or reference to the CSA Group certification and the CMDRT designation. Individuals have the right to appeal as outlined in the appeals process below. The individual will be removed from the CSA Group registry.

Voluntary Withdrawal of Certification

Individuals wishing withdrawal of the Certified Medical Device Reprocessing Technician Certification must submit a request in writing to CSA Group. Once approved, the individual will be removed from the National Registry and must immediately cease any use of or reference to the CSA Group certification. Individuals wishing to reinstate their certification must apply for certification as outlined in the certification process.

Certification Process

Appeals, Complaints, and Disputes

CSA Group's certification programs are administered and supervised by CSA America, Inc. All decisions are final. Challenges to the certification program are governed by CSA Groups' Appeals and Complaint Procedures.

Any individual shall have the right to appeal all decisions relating to CSA Group's occupational certification program including, but not limited to: testing, denial or termination of certification. A written notice of intent to appeal shall be sent to CSA Group within five (5) business days of the individual's receipt of the decision, which forms the basis for appeal.

CSA Group shall arrange an appeal meeting with the individual at CSA Group's headquarters or other mutually agreed to location, within ten (10) business days of the receipt of the written request to appeal. The individual and a CSA Group representative, who was not involved in the original decision causing the appeal, will attend and participate in the meeting. At this meeting, the individual may not be represented by counsel unless CSA Group has been notified at least five (5) business days prior to the meeting. CSA Group shall provide its decision within five (5) business days after the meeting has taken place.

If the individual still disputes the decision made by CSA Group after the appeal meeting, the individual has the right to appeal to an independent and impartial Appeals Board as outlined below.

Appeals Board

Upon receipt of a written intent by the individual to appeal to the Appeals Board, CSA Group shall arrange the Appeals Board hearing within ten (10) business days of the receipt of the request and notify the individual and responding parties. The individual may be represented by counsel at this meeting.

No individual or agent thereof, nor any person with any interest, directly or indirectly, in such individual, shall serve on the Appeals Board.

The Appeals Board hearing shall be informal and private. The individual shall be given a full opportunity to present any material or proofs relevant to the issue. Formal rules of evidence shall not be applicable. The Appeals Board shall determine the relevance and materiality of any evidence presented.

When the individual has had a full opportunity to submit their case, the Appeals Board may declare the hearing closed and shall provide the individual and CSA Group with a decision, including a brief description of its reasons, within ten (10) business days. Decisions of the Appeals Board shall be by majority vote.

All costs related to the Appeals Board are the responsibility of the individual and are due within ten (10) business days of the billing, unless the Appeals Board sides with the individual's position, in which case CSA Group will be responsible for the costs.

Examination Preparation and Completion

General Description

The CMDRT certification exam consists of approximately 100 multiple-choice questions. Examination questions have only one correct answer. Each exam question is independent and does not rely on the correct answer to any other questions.

CSA Group may include an additional 10 questions in the exam for statistical evaluation of future examination questions. These additional questions are not included as part of the examination score. These questions will not be identified in the exam, so it is important that the candidate answer every question completely. The candidate's grade is based on the number of scored items answered correctly.

The candidate will have three hours (180 minutes) to complete the exam. Exams are closed book. No reference materials may be used during the course of the exam. Test centers may have additional requirements.

Exam Content

The exam is based on categories of tasks and knowledge required by a Medical Device Reprocessing Technician. The list below outlines the examination content by category for the CMDRT Certification.

Categories

- Quality Systems
- Infection Prevention and Control
- Occupational Health and Safety
- Decontamination Processes
- High Level Disinfection
- Assembly
- Sterilization of Medical Devices
- Storage, Transportation and Distribution
- Flexible Endoscopes

Pass-Fail Standard

CSA Group's Medical Device Reprocessing Technician certification examination passing standard is established utilizing standard psychometric guidelines and is determined using a criterion-reference technique that evaluates a candidate based on a predetermined standard of knowledge or skill. This predetermined standard is defined as the minimum score that would be expected from candidates who have the level of knowledge and skills needed to competently conduct their work responsibilities.

Exam Delivery

The CMDRT certification exam will be delivered electronically at our computer-based testing center locations on demand, or as a written (paper and pencil) exam during scheduled exam sessions.

For the paper and pencil exams, all answers will be recorded on the provided exam answer sheet using a No. 2 pencil.

Examination General Instructions

During the exam, the proctor will be responsible for supervising the exam in such a way as to ensure that exam security is maintained. As such, all candidates are expected to adhere to the following guidelines during the test sessions.

A candidate's participation in any irregularities occurring during the examination, such as giving or obtaining unauthorized information or aid, as evidenced by an observation or subsequent statistical analysis, may be sufficient cause to terminate participation, invalidate the results of the examination, or other appropriate remedy.

Examination Preparation and Completion

To be admitted to the examination the candidate must:

- Submit a copy of the confirmation email with the **Test Authorization Code** to the proctor.
- Bring a **current photo identification with signature** (driver's license, immigration card, passport, etc.). **The candidate will NOT be admitted without proper identification.** If there are any questions concerning the type of picture ID, the candidate should contact CSA Group.
- Report on time.

During the Exam:

- Smoking is NOT permitted in the examination site.
- Food and beverages are NOT allowed in the examination area.
- All personal items including books, notebooks, other papers, all electronic equipment (i.e. cell phones, cameras, etc.), book bags, coats, etc. will NOT be allowed in the exam room and must be left outside of the exam room **AT YOUR OWN RISK.**
- Friends and relatives, including children, will NOT be allowed in the examination building.
- Computer-based testing facilities offer exam services to multiple agencies. There may be other individuals in the testing room with the candidate who are sitting for exams from different organizations. The rules for their exam may be slightly different than the rules for the CSA candidate's exam in terms of exam time, and what is and is not allowed at their station.
- Computer-based tests are delivered via secure Internet connections. Internet connections are subject to the local Internet providers in the area. While it is not the norm, Internet connections can, on occasion, be lost momentarily, requiring the proctor to log the candidate back into his/her examination. If this occurs, the candidate should inform the proctor that the connection has been lost and the proctor will assist the candidate in logging back into the exam. The exam time remaining will be exactly the same as it was when the Internet connection was lost.

Prohibited Items:

Candidates are expressly prohibited from bringing the following items into the exam room:

- cameras, cell phones, optical readers, or other electronic devices that include the ability to photograph, photocopy or otherwise copy test materials
- notes, books, dictionaries or language dictionaries
- book bags or luggage
- ipods, mp3 players, headphones, or pagers
- calculators (except as expressly permitted by the test sponsor), computers, PDAs, or other electronic devices with one or more memories
- personal writing utensils (i.e., pencils, pens, and highlighters)
- watches
- food and beverage
- hats, hoods, or other headgear

If the proctor determines that the candidate has brought any such items into the exam room, the test session will immediately stopped and voided.

Environment

Examination room temperature can be unpredictable; therefore, we suggest that the candidate bring appropriate clothing (e.g. sweater or sweatshirt without pockets) to help to adapt to a cooler or warmer climate in the examination room. The candidate should bring ear plugs if he/she is sensitive to noise.

Examination Preparation and Completion

Exam Security

All CSA Group certification examination content and wording of examination questions constitute confidential information protected by copyright law. Any unauthorized receipt, possession, or transmission of CSA Group examination questions, content, or materials, either before the examination, on-site, or in the future is strictly forbidden.

The use of CSA Group examination materials for the purpose of examination preparation or training is also forbidden.

CSA Group reserves the right to take whatever measures are necessary to protect the integrity of its examinations. Violation of the CSA Group examination agreement and/or non-disclosure agreement, or the giving or receiving of aid in any CSA Group examination as evidenced either by observation at the time of the examination or by statistical analysis, or engaging in other conduct that subverts or attempts to subvert the examination or the CSA Group certification process, is sufficient cause for CSA to:

- Bar an individual from the examination
- Terminate participation in the examination
- Withhold and/or invalidate the results of the examination
- Withhold a certification
- Revoke a certification or
- Take appropriate other action.

Exam Results Notification

Approximately two weeks after completion of the exam, the candidate will receive official notification of the exam score from CSA Group. Candidates passing the exam and fulfilling all program requirements will also receive a certificate with the effective date of certification. In order to protect the candidate's confidentiality, under no circumstances will test scores be given by telephone or e-mail.

Examination Body of Knowledge and Blueprint

Examination Knowledge Reference Documents

The CMDRT exam draws on concepts included in the following standards and materials. They are helpful reference materials to use in preparation for the exam:

Familiarity with Medical Device Reprocessing standards including, but not limited to:

- Tier 1 (Highly Recommended reading):
 - CSA Standards
 - Z314.3 Effective Sterilization in Health Care Facilities by the Steam Process
 - Z314.8 Decontamination of Reusable Medical Devices
 - Provincial/Territorial Best Practices (e.g., PIDAC)
 - The Public Health Agency of Canada (PHAC; Hand washing, Cleaning, Disinfection and Sterilization and CJD Guidance documents)
 - SGNA Standards of Infection Control in Reprocessing of Flexible Gastrointestinal Endoscopes
- Tier 2 (Other Useful Resources):
 - CDC Disinfection and Sterilization Guidelines
 - ORNAC, CSGNA, and CHICA Guidelines and Standards
 - Legislation/Regulatory requirements
 - Other CSA Standards, including:
 - Z314.2 Effective Sterilization in Health Care Facilities by the Ethylene Oxide Process
 - Z314.10 Selection, Use, Maintenance, and Laundering of Reusable Textile Wrappers, Surgical Gowns, and Drapes for Health Care Facilities
 - Z314.14 Selection and Use of Rigid Sterilization Containers
 - Z314.15 Warehousing, Storage, and Transportation of Clean and Sterile Medical Devices
 - Z314.22 Management of Loaned, Shared and Leased Medical Devices

Acronyms

PIDAC - Provincial Infectious Diseases Advisory Committee (Ontario) - "Best Practices for Cleaning, Disinfection and Sterilization in all Health-care Settings", 2006

PHAC - Public Health Agency of Canada

ORNAC - Operating Room Nurses Association of Canada

CSGNA - The Canadian Society of Gastroenterology Nurses and Associates

CHICA - Community and Hospital Infection Control Association - Canada

SGNA - Society of Gastroenterology Nurses and Associates

CJD - Creutzfeldt-Jakob Disease

CDC - Centers for Disease Control and Prevention

Exam Objectives

The following exam objectives were developed by a group of industry experts. The weighting of each objective was determined through industry survey. The following table outlines the knowledge and skills required for each objective.

1	Quality Systems	4%
	1.01	Describe the elements of a quality system that apply to daily practice.
2	Infection Prevention and Control	17%
	2.01	Describe basic microbiology concepts related to reprocessing of medical devices.
	2.02	Describe how and when to use Routine Practices.
	2.03	Describe how and when to practice hand hygiene.
	2.04	Describe how to select and use Personal Protective Equipment (PPE).
	2.05	Describe safe management of sharps.
	2.06	Recognize instances of exposure to body fluids and describe how to take appropriate action following exposure.
	2.07	Describe how to prevent contamination and cross contamination.
	2.08	Given a scenario, identify breaks in good infection prevention and control practice.
3	Occupational Health and Safety	2%
	3.01	Describe relevant occupational health and safety practices.
4	Decontamination Processes	16%
	4.01	Describe how to select and use appropriate agents for decontamination.
	4.02	Describe the different types and functions of decontamination equipment.
	4.03	Describe how to collect, transport, and receive soiled medical devices.
	4.04	Describe the steps for decontamination of soiled medical devices.
	4.05	Describe how to use decontamination equipment.
	4.06	Describe how to manually clean medical devices.
	4.07	Given a scenario, identify incorrect practices in decontamination.
5	High Level Disinfection	10%
	5.01	Identify devices that require high level disinfection.
	5.02	Describe how to select and use appropriate chemicals for high level disinfection.
	5.03	Describe how to manually high level disinfect semi-critical devices.
	5.04	Describe how thermal high level disinfection can be achieved.
	5.05	Describe the different types and functions of automated high level disinfecting equipment.
6	Assembly	22%
	6.01	Describe how to sort, inspect, and test medical devices.
	6.02	Distinguish between single-use, multi-use, and reusable medical devices.
	6.03	Describe how to assemble a set/tray.
	6.04	Describe how to identify, select, and place chemical indicators.
	6.05	Describe how to safely operate assembly area equipment.
	6.06	Given a scenario, describe how to prioritize assembly workload.
	6.07	Describe how to properly package medical devices for sterilization or other uses.
	6.08	Given a scenario, describe appropriate assembly practices.

Exam Objectives

7	Sterilization of Medical Devices	18%
7.01	Explain the importance of medical device compatibility and validation.	
7.02	Describe the different types of steam sterilizers and critical parameters needed for sterilization.	
7.03	Identify the main components and describe the function of a steam sterilizer.	
7.04	Explain how to manage load and operate steam sterilizers.	
7.05	Describe the elements of a steam sterilization quality assurance program.	
7.06	Describe the different types of low temperature sterilizers and critical parameters needed for each method.	
7.07	Explain how to select, manage load, and operate low temperature sterilizers.	
7.08	Not Used	
7.09	Given a scenario, identify appropriate responses to an adverse sterilization event.	
8	Storage, Transportation and Distribution	6%
8.01	Describe elements of storage and inventory management of medical devices.	
8.02	Describe elements of transportation and distribution of medical devices.	
8.03	Given a scenario, identify best practices in storage and transportation of medical devices.	
9	Flexible Endoscopes	5%
9.01	Describe how to reprocess flexible endoscopes and accessories.	
9.02	Given a scenario, identify best practice for reprocessing flexible endoscopes.	