



Preparation Guide for the Membership Exam of the Canadian College of Physicists in Medicine

October 1st, 2013
Updated October 1st, 2023

Introduction

This document is intended to assist candidates in preparing for the Membership exam. The Membership exam is delivered in two parts: a 5 hour written exam followed by an oral exam. Only the candidates having successfully completed the written exam are eligible to take the oral exam.

Although this document provides guidance to candidates, it is not meant as a single definitive source of preparation. Every candidate needs to tailor their preparation for their own needs and experience.

Description and content of the written examination

The written exam focuses mainly on probing the candidate's factual knowledge of medical physics, both generally and more specifically, to their subspecialty. It is helpful to understand the format of the exam since this will affect preparation.

There are four parts to the written exam. The first two sections (parts I and II) are multiple choice style questions¹, while the last two sections (III and IV) are long answer style questions.

Part I

Candidates from all the subspecialties write the same exam for Part I. The exam committee determines the content of the exam. It covers different topics, such as:

- General medical physics (atomic/nuclear physics, source of radiation, interaction of radiation with matter, radiation measurement and instrumentation)
- Anatomy
- Radiation biology
- Ethics
- Statistics and mathematics relevant to medical physics.

¹ Note, this is true for the Radiation Oncology, Diagnostic Imaging and Nuclear Medicine subspecialties. For the Magnetic Resonance Imaging subspecialty, Part I is comprised of multiple choice style questions while Part II is short answer questions.



Preparation Guide for the Membership Exam of the Canadian College of Physicists in Medicine

October 1st, 2013
Updated October 1st, 2023

The candidates should also expect questions from diagnostic radiology (DR), magnetic resonance imaging (MRI), nuclear medicine (NM), and radiation oncology (RO). A suggested reading syllabus is provided for Part I (general medical physics – all subspecialties) on the website. This type of reading should begin well ahead (i.e. several months) of the exam date. During the exam, the candidates should keep track of their time, ensuring that they will be able to attempt all questions.

Part II

Part II of the exam has one version specific to Radiation Oncology Physics, Nuclear Medicine Physics and Diagnostic Radiology Physics addressing radiation safety and a second version specific to Magnetic Resonance Imaging Physics addressing magnetic resonance imaging safety.

For the Radiation Oncology, Nuclear Medicine and Diagnostic Radiology subspecialties, section II of the exam will focus on radiation protection and consist of multiple choice style questions. For the Magnetic Resonance Imaging subspecialty, section II of the exam will focus on MRI safety and consist of short answer questions.

A suggested reading syllabus is provided for Part II (radiation safety or magnetic resonance imaging safety, depending on the subspecialty). This type of reading should begin well ahead (i.e. several months) of the exam date. During the exam the candidates should keep track of their time, ensuring that they will be able to attempt all questions.

Parts III and IV

Parts III and IV are comprised of written, long answer style questions and are available to the candidate on the CCPM website (www.ccpm.ca) after October 1st. These questions are largely the same from year to year, with a possibility of wording differences or questions that have been added/replaced. The candidates should ensure that they have the latest version of the question bank and should begin preparing the questions well in advance (i.e. a few months prior to the exam date) as to not get overwhelmed by the substantial volume of questions contained in the booklet. The candidate is allowed to solicit the help and feedback of experienced medical physics colleagues to discuss the questions in the booklet before the exam date to maximize accuracy and completeness of their answers.

During Parts III and IV of the written exam, the candidate will need to answer only a few questions (4-5 per section) selected from the entire question bank. During the exam, the



Preparation Guide for the Membership Exam of the Canadian College of Physicians in Medicine

October 1st, 2013
Updated October 1st, 2023

candidates are expected to provide detailed answers to the questions. Approximately two pages of writing per question is expected, but this can vary with writing size and page space usage.

Since Parts III and IV of the written exam are under a specified time constraint, effective time management is crucial to successfully completing the exam during the given time period. Having answers prepared to all the questions ahead of time and having practiced writing them quickly will help the candidate convey the maximum amount of information and increase chances of success on the exam. Answers in point form as opposed to full grammatically correct sentences are acceptable, as long as they are coherent.

Note that the exams are copied or scanned and sent to the correctors. **Writing must be legible.** If a corrector cannot read your writing, then a mark of 0 is assigned to that section.

Written Examination Process

The Chief Examiner and a local invigilator will ensure that the written examination runs smoothly. For logistical reasons, examinations shall be located in Canada. The Chief Examiner will identify, for each candidate, an examination location in Canada as close as possible to the candidate's home institution.

The examination lasts 5 hours and is comprised of two 2.5 hour sessions with a 45 – 60 minute lunch break (the actual length of the lunch break is determined with the invigilator before the examination starts).

Candidates may only use the supplied answer booklet material, a non-programmable calculator, and normal writing/drawing instruments. Other electronic devices, including but not limited to cell phones, tablets, and recording devices, are not permitted. Candidates are encouraged to use a black pen and/or a dark pencil to facilitate photocopying. Appropriate examination papers together with sufficient blank answer books are provided to the candidates. The invigilator distributes the appropriate examination paper and answer material to the candidates at the start of each section of the examination. Each of the four sections of the exam are answered in separate booklets. All questions and all answer material, whether used or not, must be returned to the invigilator at the end of the exam.