

FAQs
(of the Board of Certification of Medical Illustrators BCMI):
29 NOV 2021

The CMI Written Exam

1) What guidance can you give to help me successfully pass Part 1: Written portion of the CMI Exam?

*The BCMI does not provide a study guide. All the help that we are allowed to offer, per NCCA guidelines, can be found on the AMI website. We also offer the following “guidance”:

--Please READ the entire question and think about your answer and what information we are looking for, BEFORE you start writing.

--Consider the question from both points of view (the client and the artist). What information would be needed from the client’s point of view? What information would be needed from the artist’s point of view?

--Do not give the same answer on 2 different exam questions: If you find yourself inclined to give the same answer to more than one question, with few exceptions, you have misread the question.

--Give concise answers which are full of information. Don’t ramble.

--You may give more answers than the question asks for (within reason, of course). For example, if the question asks, “Please list 5 things you would do in the following situation”, don’t necessarily limit yourself to 5 answers, if you have additional **substantive** information to give. Having said that, we often seek answers classified as “required answers”, and other answers classified as “supporting answers.” If all of your answers fall into the “supporting” category, you can still lose valuable points because you failed to identify the most important answers (“required”).

--On Exam Day, flip through the entire exam once you are instructed to open it to get a sense of the task before you, and determine how much time you will probably need to allocate to each Section of the exam.

--(On the Drawing Section:) Think outside the box: if you can think of a better way to communicate information, do so.

2) What subjects are covered in the written CMI exam?

*Section 1 covers *business & ethics*, Section 2 covers *human anatomy*, Section 3 *evaluates your ability to communicate ideas and information through drawings*.

3) What is the nature/format of the 3 Sections?

*Section 1: Business & Ethics, is an essay-based exam. We are looking for specific words or concepts, and so you may answer the questions in full sentences, or if you prefer, as a bulleted list. Section 2: Anatomy, is a multiple-choice exam and a diagram-labeling exam. Each multiple-choice question will have 4 possible answers. It will not have answer options such as “e) a, b and d but not c”. The diagram-labeling questions are clean line drawings surrounded by leader lines associated with letters. In the answer spaces below the diagram, you will write the name of the structure associated with that specific letter.

Section 3: Drawing, is a drawing exam where you will be asked to communicate specific information effectively, through images.

4) Will I be required to draw specific human anatomy at any point in the exam?

*No.

- 5) When MIs fail (some or all of) the written exam, is there a common cause of the failure?**
*Most failures in Sections 1 and 3 seem to happen when the examinee does NOT read the question fully, and so (s)he gives an answer that is either incomplete, or full of good, but unrelated, information. Most failures in Section 2 seem to happen because the examinee simply doesn't know human anatomy well enough, or leaves a question blank or unanswered. There are no trick questions.
- 6) How many questions are on the exam?**
*Section 1: Business & Ethics has 6 main questions, with a couple of them divided into parts, and so the total number of essay questions in Section 1: Business & Ethics is 10. Section 2: Anatomy has 19 multiple choice questions and 6 diagrams containing 60 fill-in the blank questions: total Anatomy questions: 79. Section 3: Drawing has 5 questions.
- 7) Do you have or make sample questions available to the public?**
*NCCA guidelines allow the BCMI to give one sample Anatomy question and all of the Drawing questions. We have posted these questions in the CMI Information Bulletin, which can easily be found and downloaded from the AMI website:
<https://ami.org/images/certificationinfobulletin2021.pdf>
- 8) How detailed are the Anatomy section questions?**
*You are being tested on *general* human anatomy: the level of understanding that the average medical illustrator would need to know to have an effective conversation with a physician. You will not be required to know the names of obscure branches of either vasculature or nerves, or muscles. General anatomical questions covering bones, recesses, organs, structures, locations, concepts and spatial relationships are fair game.

Written CMI Exam-related (exam day)

- 1) How many hours are we given to take the written exam?**
*You have 5 full hours to complete the CMI Written Exam.
- 2) Can you leave the exam site for a bathroom break?**
*Yes, but you cannot take anything with you
- 3) Can I have a cell phone while I sit for the exam?**
*Yes, but it must be turned off and face down
- 4) Am I allowed to hop back and forth between sections, or do I have to take one section at a time?**
*Yes, once you open the exam it is entirely up to you how you take the exam
- 5) What am I allowed to bring to the exam?**
*Only a collection of pencils and an eraser.
- 6) Can I bring food or water to the exam?**
*Yes, you can bring bottled water and small snacks to the exam
- 7) Can I ask questions during the exam?**
*Yes, the proctor is prepared to answer most questions. In the unlikely event that (s)he is stumped, the proctor is has the BCMI Chair's direct phone number.
- 8) Do I have to stay the full 5 hours?**
*No, you may leave as soon as you are done

Written CMI Exam-related (Administrative, and other)

1) Does the BCMI plan on offering the exam during the AMI Conference in 2022?

*Yes.

2) What are the current options for taking the written portion (Part I) of the CMI exam?

*The BCMI is still authorized (based upon the laws of individual States or countries) to conduct both proctored, off-site exams, and REMOTE-proctored, off-site exams. The remote-proctored exam is challenging, because it requires the examinee to set up multiple cameras weeks in advance, which allows the proctor who is not present in the same room as the examinee to watch the examinee for the full 5 hours. But it is an option to those who wish to do so. The BCMI also allows local US libraries who offer proctoring services to stand in as proctors.

3) How soon do I have to pay for the exam?

*Exams must be paid for and verified no less than 2 weeks before the planned exam day.

4) What is a passing score?

*A 75 or more must be achieved in each of the 3 written Sections to pass.

5) Can I take the exam again if I fail it?

*In the event of a partial or complete failure, the examinee may sit for the exam again after 90 days. There is no limit on the number of times an examinee may sit for the exam. Retakes are unfortunately subject to the \$50 fee per section (higher for non-members of the AMI) and the \$60 shipping fee.

6) If I score very high in one Section but very low in another, can the high score compensate for the low score?

*No, each section must score 75 or more individually, to pass.

7) How soon after taking the exam will I be notified of my results?

*Unfortunately, this depends upon the availability of the BCMI members, and the exam itself. All exams which score between 70 and 80 require an automatic 2nd, and possibly, a 3rd scorer, which means the BCMI needs to FedEx the completed exam to other members of the Board. Obviously, if this happens, exam results are delayed substantially.

8) If I fail part of, or all of the CMI Written exam (Part 1), how long do I have to take it again?

*up to 2 years, from the date of BCMI notification of the examinee.

Other Administrative Questions

1) How many parts are there to the CMI Exam?

*The CMI Exam is a 2-part exam: Part 1, the 'written' exam, which contains 3 sections, is administered first, and once the examinee passes it, (s)he is allowed up to 2 years (plus any floating months, see below) to submit the 'portfolio' exam for BCMI evaluation and scoring.

2) I know the CMI term is 5 years, but how does that work exactly?

*Because the BCMI is a volunteer organization, and because BCMI leadership can change at any given time, we have streamlined the process to the "half year", to significantly reduce bookkeeping. This practice is approved by the NCCA. Therefore, an examinee who passes Part 1

(written) of the CMI exam is granted 2 years to submit Part 2 (portfolio) of the CMI Exam, plus the number of days/months to either the next July 1 or January 1, whichever comes first. So, for example, an examinee who passes Part 1 in March of 2022 will be granted 2 years, plus 3 “free” months (April, May, June) to submit his/her CMI Portfolio, meaning that the examinee’s Portfolio deadline is July 1, 2024. Similarly, any examinee passing Part 1 after July 1, (let’s say, July 14, 2022), will get 2 years and almost 6 extra months, because the next immediate “half-year” would be January 1, 2023. This would make that individual’s CMI Portfolio due by January 1, 2025.

3) Do I have to wait until my CMI Portfolio deadline to submit my CMI Portfolio?

*No, all examinees are welcome to submit CMI Portfolios the day after they pass Part 1 (written), if they choose to.

4) How do you ensure fairness in the scoring of portfolios, when art is inherently subjective?

*The BCMI has been aware of this challenge from its inception, and in response, uses a very detailed evaluation rubric to score each portfolio piece. This rubric evaluates in very specific terms the accuracy, clarity, and aesthetics of each piece, down to providing scores for the BCMI member to use. For example, in the category of “Accuracy”, a portfolio piece which had no detectable anatomical errors would receive 10 points, a portfolio piece which had minor anatomical errors NOT near the focal point would receive 8 points, a portfolio piece which had anatomical errors within the ‘story’ or area of focus would receive 6 points, and so forth. This rubric has been very effective in insuring that the variance in scoring between BCMI members is kept to a minimum. Once the BCMI created this rubric in 2011, the range in BCMI scores reduced dramatically, creating a much more fair and even-handed scoring system ever since.

Additionally, the scoring rubric is deliberately designed so that it is very difficult to fail a piece which has weakness in only one of the three categories (accuracy, clarity, aesthetics). Only egregious anatomical errors (errors which would tarnish the reputation of all practicing medical illustrators if the flawed illustration were allowed to get into the collective body of works) can cause a portfolio submission to fail outright.

5) What safeguards are in place at the BCMI to ensure anonymity and to prevent fraud?

*BCMI follows all recommendations and guidelines as provided by the NCCA and ICE related to anonymity and fraud, and employs every effort to provide appropriate protection of all examinees. Therefore, the BCMI has numerous safeguards to ensure both anonymity, and to prevent fraud. BCMI vets the integrity and reputation of each BCMI member. (If there is any reason to doubt the integrity of the candidate, that individual would obviously not be invited to join the BCMI.) Traditionally, the names of the BCMI members have not been shared online with the public, to prevent individual examinees from contacting and potentially influencing BCMI members. BCMI members NEVER know the name of the examinee attached to the written exam or to the portfolio. In the unlikely event that a BCMI member recognizes the work in a CMI Portfolio, (s)he is immediately required to recuse him/herself.

For the scoring of the written exams at the annual BCMI business meeting, exams are scored in a single room—as a group—consisting of BCMI members, Chair, Vice-chair and Portfolio Chair, within plain sight of each other. In each Section (Business/Ethics, Anatomy, Drawing) all passing exams must earn a 75 or above. All exams which receive a 69 or lower fail immediately, while all exams which receive an 81 or above pass immediately. Any exam which falls in the 70-80 range **must be rescored** by at least 2 more BCMI members, to ensure fairness. With the multiple scores in place, *majority* scores either pass or fail that section of the written exam for that examinee. Exam scores

are tabulated by the Chair and corroborated by the Vice chair, to ensure that the numbers are recorded correctly and appropriately. All notification correspondence by the Chair to the examinee is copied and archived. All exam results are immediately verifiable.

For the scoring of the written exams taken offsite, exams may only be scored by BCMI members who do not know the examinee, nor are graduates from the same alma mater. All written exam scores are recorded by the BCMI Chair on a Google Drive excel document which is shared with the Vice chair, to ensure the integrity of the scoring. The same rules outlined above apply.

For the scoring of the portfolio exam, the only person who knows the name of the examinee *prior to completion of exam scoring* is the Portfolio Chair, who communicates with the examinee prior to portfolio submission and who receives that submission. The BCMI Chair only knows the name of the examinee once the portfolios have already been scored, as communicated to him/her by the Portfolio Chair. **Neither the Portfolio Chair nor the BCMI Chair is allowed to score CMI Portfolio exams.** All CMI Exam scores generated by the respective BCMI members go directly to the Portfolio Chair prior to them being shared with the BCMI Chair, so that the BCMI Chair cannot alter any score. The Portfolio Chair records those scores independently of the BCMI Chair. The Chair is required to send the Portfolio Chair a verification notification of exam results for each and every examinee.

6) Why are faculty from Medical Illustration programs allowed to serve on the BCMI—isn't that a conflict of interest?

*Faculty from medical illustration programs are allowed, and are actually desirable members of the BCMI, first, because they broaden the diversity of the BCMI, second, because of their unique skillset: they are constantly immersed in all aspects of human anatomy and all the various body systems, mechanics and function, unlike their non-academic counterparts, who most often specialize in specific body systems (e.g., cardiothoracic, neuro, molecular, etc.), and so they often have a keener eye for details and errors, and third, because they regularly engage with students, they are often better at giving feedback than BCMI members who seldom if ever offer advice or critique in the course of their daily work.

Portfolio CMI Exam

1) How long do I have after passing Part 1 to submit my CMI Portfolio?

*You have 2 years, plus up to 6 months more, depending upon the time of year an examinee passes Part I. For organizational and bookkeeping purposes, the BCMI sets 2 markers: one on January 1 and one on July 1. Examinees who pass between January 1 and June 30 get 2 years, plus however many days between their passing date and June 30. The same for the 2nd half of the year.

2) Because judging artwork is inherently subjective, how does the BCMI fairly score portfolios?

*The BCMI uses, and closely follows, a rubric for each scored attribute of the exam. If a CMI piece, for example, has an anatomically incorrect detail, which is not part of the main story, it receives a required score. If it has an anatomically incorrect detail, which IS part of the main story, it receives another required score, and so forth. Significant variation among BCMI scores is uncommon.

3) What is the rubric for scoring CMI portfolios?

*When an examinee passes Part 1: Written of the CMI exam, (s)he is sent a PDF document which discusses in great detail all the specifics of both what is required in the 8 Portfolio pieces and the score sheet (mentioned above) which provides the scores and their associated qualities which

would warrant such a score. The rubric can be found at the bottom of the CMI Portfolio Instructions document, available here:

<https://www.ami.org/images/BCMI/2021CMIPortfolioInstructions.pdf>

4) If I fail the Portfolio Exam, how long do I have to resubmit a new portfolio?

*6 months, from the date of BCMI notification of the examinee. Only pieces which fail must be resubmitted or replaced. The passing pieces stand. There is no limit to the number of CMI Portfolio resubmissions a medical illustrator can submit.

5) How long should I expect to wait to receive my Portfolio Exam results?

*Portfolios submitted during our busy seasons January and July can take as long as 6 months to score, while portfolios submitted during the other 10 months usually take only half as long.

6) How long should I expect to wait to receive my Official CMI Certificate?

*Depending upon the workload of the Vice Chair, Certificates take between 3 weeks and 6 months to send.

7) If I have an urgent need to receive my CMI exam results, is it possible to request expedited scoring?

*The BCMI is happy to do so, and will do our best to accommodate deadlines. However, remember that the BCMI is a volunteer organization, and our output is always subject to BCMI availability.

8) Will I receive detailed feedback regarding the pros and cons of my portfolio?

*For every submission which receives a failing score, the BCMI provides detailed feedback regarding “why” that submission failed, written by those who scored the piece. Unfortunately, time does not permit the Board to provide feedback on the submissions which pass.

Strategic Questions Regarding Certification

1) Why should I seek certification?

*While certification is not mandatory for being a ‘respected’ or successful medical illustrator, certification does lend significant credibility in certain circles, such as in most medical centers and among physicians and other medical professionals who have certification organizations of their own, and to whom “letters after one’s name” is desirable. Certification is a significant accomplishment, both because it is based upon accreditation and certification standards of the larger health professionals credentialing system in the United States, (The National Commission for Certifying Agencies, or NCCA), and because the evaluation process is by a jury of one’s peers, successful and recognized medical illustrators, who are actively practicing.

The other common reason why medical illustrators choose to pursue certification is the educational component; maintenance of Certification requires 35 hours of education, study or training for each 5-year CMI term, and many medical illustrators enjoy the subtle pressure to be constantly learning throughout their professional lives. Certification is often that singular impetus which motivates medical illustrators to actively seek continuing education.

2) When should I take the CMI exam?

*This is question that has been debated for years. Most medical illustrators opt to take the exam soon after graduating, employing the strategy that the information is fresh on their minds. But some choose to wait, anticipating that full-time work as a professional medical illustrator will

provide much more useful wisdom and experience. There is no right answer to this question.

3) How long do I have after graduation to take the CMI exam?

*Neither the BCMI, nor the NCCA, puts any restrictions on examinees. You can take the exam the week following graduation, or you can take it years later.

Serving on the BCMI

1) I would love to serve on the BCMI, but I don't know how, or what it involves. What are the criteria for service on the BCMI, and whom should I contact?

*BCMI is always looking for CMIs who are interested in serving on the BCMI. BCMI has a single "requirement"; that is, the individual must have 5 professional years full-time work experience as a medical illustrator, prior to BCMI service. Service on the BCMI is a **3-year commitment**, which is renewable in the absence of volunteers on the wait list. In the absence of pending volunteers, the BCMI generates a list of potential candidates from their own interactions with colleagues, who are then vetted by the entire BCMI, and are only invited once all the qualities listed below are evaluated.

Because fairness and impartiality are two of the BCMI's highest and most important objectives, not all who are technically qualified to serve on the BCMI will have their request to serve granted. When the BCMI seeks new members, the BCMI evaluates the following criteria: ***Professional reputation, artistic consistency, alma mater, specialty, time in the profession, conflicts of interest, general busy-ness and likely availability, and personal qualities such as ease to work with and likeability (team players).***

In practical terms then, the BCMI will avoid too many BCMI members from the same graduate program, or who illustrate the same specialty, etc. "Rejected" volunteers may be invited as their unique skillsets are needed, as current BCMI members retire. All requests to join the BCMI should be directed to the Chair of the BCMI, who currently is Michael Jensen (mjensen@augusta.edu)

2) What does a BCMI member do?

*BCMI members have 2 basic responsibilities: 1, to make themselves available to score portfolios throughout the year, and 2, to make themselves available to attend the annual BCMI business meeting, which takes place each year at the annual AMI Conference. This business meeting is very important, because it is the meeting where the vast majority of BCMI concerns are discussed and problems solved, and it is where the written CMI exams are scored. Scoring the exams as a group is extremely valuable, because all exams potentially need to be scored by 3 board members, and having all the board together at once is extremely efficient. Scoring exams as a group typically takes many hours because of the number of exams to score. Attending the annual BCMI business meeting requires the member to stay an extra day at the AMI Conference venue.

3) How much does it cost to serve on the BCMI?

*All expenses related to BCMI service are covered or reimbursable. BCMI member who stay for the annual BCMI business meeting have all food and lodging costs for that extra day covered.

4) How many annual hours of service does service on the BCMI require?

*Each portfolio takes at least a couple hours to research and score, sometimes more, sometimes less, and each portfolio must be scored independently by at least 3 BCMI members. Each portfolio piece must receive 3 passing scores to "pass". Therefore, if a portfolio piece receives a failing

score, a fourth BCMI member must score the submission. If 2 BCMI members fail a submission, a fifth BCMI member must score it. BCMI members are not required to score every portfolio that is submitted in any calendar year; however, the BCMI asks that each member commit to scoring as many portfolios as possible, recognizing that family and job come first. While this is a tough question to answer, 50 hours spread out annually would not be unreasonable, plus the full day at the annual BCMI meeting.

5) Why don't you publish the names of those currently serving on the BCMI?

*In order to protect the BCMI members from undue influence or attempts by examinees to influence the exam scores or outcome, we do not publish the names of BCMI members.