

British Columbia Computing Olympiad

Presented By: Inova Computer Association

Introduction:

The British Columbia Computing Olympiad (BCCO) is a contest consisting of multiple-choice and free response questions testing basic computer science knowledge and logic for students in grades 7, 8, and 9. There will be no cost for participation in this contest. This program is presented by the Inova Computer Association.

Mission/Purpose:

The aim of this contest is to promote an interest in computer science for students in BC at an early age. Through this competition, students may find computer science to be an intriguing area of study and endeavour to become more involved in the field of technology and other related subjects in the future.

Contest Description:

Administration:

The contest will be held on May 24th from 9 to 10 AM PST. Students will have a maximum time of 1 hour to complete the exam (they may finish and leave before this time is up). The exam will be administered by a supervising teacher in either hard copy or digital form, although the online format will be encouraged in order to reduce the use of paper. Schools may choose to use the paper exam if the digital format is inaccessible (for example, due to insufficient computers for the number of participants or no wifi available).

Format:

The contest will consist of 15 multiple-choice questions with 5 choices each (listed from A to E). These questions will be ordered based on increasing difficulty. In addition, there will be 3 free response questions. These problems will be in the style of fill-in-the-blank.

Scoring:

Multiple-choice section:

- 1 point will be awarded for every correct answer
- 0 points will be given for unanswered questions
- 0 points will be deducted for each incorrect answer

Free response section:

- 5 points per every correct question
- 0 points deducted for every incorrect answer
- 0 points given for each unanswered question

The maximum score possible is 30 points.

Question Style:

All questions will be based on logic and reasoning skills that are applicable to computer science. These are the types of problems that may be encountered on the contest:

- Learn Something, Solve Something (~5 Q)

- Questions of this type will provide background context or basic knowledge to facilitate problem solving. The purpose of these questions is so that all students with or without previous knowledge in computer science can answer. Additionally, the background context will also expose students to new principles and practices.
- Code and Functions (~4 Q)
 - Questions of this type will give the participant a short excerpt of code in Python or a simple function to evaluate. This will familiarize students with computational methods and algorithms.
- Computer Math (~3 Q)
 - Questions of this type will test mathematics required for computer science. Examples of this category include binary arithmetic and modulus.
- Logic Puzzles (~3 Q)
 - Questions of this type will test simple reasoning and logical thinking. Participants will be challenged to critically think and tackle unconventional problems.
- Miscellaneous (~3 Q)
 - This category includes questions of types other than those mentioned above.

Rules

1. Calculators are permitted for the duration of the contest with the exception of any device that can access the internet, communicate with others, or store prohibited information.
2. Students may use scrap paper for any rough work.
3. Record your answers in the appropriate fields. Any responses not submitted will not be graded.
4. Students will have a maximum time of 1 hour to complete the exam. You may finish and leave before this time is up.

Awards and Requirements:

There will be 2 divisions for the distribution of awards. The first division will consider grade 7 participants and the second will be for grade 8/9 students. The following requirements will apply separately for the two divisions. For example, there will be a top 3 for the grade 7 participants and also a top 3 for the grade 8 or 9 participants.

Requirement	Award
Participation in the contest	Certificate of Participation
Score in top 25%	Certificate of Distinction*
Placement in top 10	Certificate of Excellence*
Placement in top 3	Placement Plaque*

* Participant will also be named on the public contest result list.

Procedures:

Registration:

Registration will be done on the website. A supervising teacher must register on behalf of all student participants at their school. The teacher must provide his/her name, email (for contacting purposes), a valid school ID and individual student information accordingly to the registration form. There is no limit to how many participants can sign up per school.

Contest Delivery:

If the supervising teacher chooses to do the contest online, he/she will be in charge of distributing the student IDs to access the testing site at the appropriate time. If the supervising teacher chooses to do the paper format, we will email them a copy of the contest, which they will need to print out enough copies of, and will distribute to the students at the appropriate time.

Problem Marking:

The digital format of the contest will be automatically scored by the website. For the paper version, the supervising teacher must scan and email the Answer Sheet to our email address. The BCCO committee staff members and volunteers will mark the tests and add up the scores. Results will be posted on the website within 1 month, with the list of top scores accessible to everyone. Other scores can be viewed by the participant's respective teachers.

Participant Information Change:

If a participant's information (name or grade) needs to be modified or a participant decides to drop out, please email us and we will make any changes necessary.

Miscellaneous

Sample Contest

A sample contest can be found at www.bcco-inovaca.org/sample.pdf (PDF) or logged onto the online test site with participant IDs. Students are welcome to attempt the problems to gain a further understanding of the competition. However, please note that an answer key will not be provided for the sample.

Privacy Statement

The Inova Computer Association (hereafter referred to as "Inova") will collect the following information from any student that writes the British Columbia Computer Olympiad (hereafter referred to as "BCCO"): their name, the name of the school that they attend, and the grade they are currently in at their respective school. We will use the information that we collect for identification purposes, as well as for the publishing of results.

Additionally, for contacting purposes, Inova will collect the name of the teacher representative of each school (the teacher who registers the students of their school), as well as their email.

Inova will only publish the names of the participant and their school if they score within the top 25% in their division. All other personal information of any kind will not be published.

The personal information and score of each participant may be viewed by the teacher representative through their school login account, which is provided by email after the participants are registered.

The personal information of a participant or the contact information of a teacher representative may be given to authorities for legal reasons, or to a school representative with verified credentials.

All participants automatically agree to this statement when they are registered for the BCCO.

Teachers/Professional Committee:

- Mrs. Brianna Stusiak
- Mr. Dave Rosborough

Staff and Management:

- Project Manager: Serena He
- Assistant Project Manager: Danika Hall
- Outreach Director: Victoria Kim
- Content Manager: Ethan Zhu

Please do not hesitate to contact us for any inquiries.

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