



# Institute of Computer Engineers of the Philippines

SEC Reg. No. 201120675

## PROGRAMMING

*(Note: This guideline is intended for the National CpE Challenge. If the same will be used for Regional Competitions, necessary changes may do, if applicable).*

CpE Programming Competition aims to showcase student's ingenuity, analytical ability and programming prowess. It is participated by students with exemplary competence in problem solving and computer programming.

### THE COMPETING ENTRY/TEAM

1. Each participating region is entitled to send one team (the regional team's champion) composed of two (2) ICpEP student members regardless of year level endorsed by the ICpEP Regional Chapter President. Regions with twenty or more schools offering BSCpE program may send maximum of two (2) teams.
2. A registration fee of Php 1,500.00 per entry or team will be collected
3. All entry/team members must be currently enrolled in BSCpE program.
4. The region must assign a faculty member who will serve as coach. The coach is also the team's official representative and only authorized person to file a protest in behalf of the entry/team.
5. List of participants (*form provided on the last page*) must be sent through email [dion\\_tand@yahoo.com](mailto:dion_tand@yahoo.com) on or before November 10, 2018 (*for National Competition*). Late submission of entries shall not be accepted.

### THE COMPUTING ENVIRONMENT

1. The programming languages of the competition are C/C++, Java and Python. Given problems may be solved in any of the specified programming languages.

Programming Language	Recommended IDE
C/C++ language	DevC++ or equivalent application
Java language	Netbeans or equivalent application and at least Java 2 Platform, Standard Edition (J2SE) 5.0
Python 2.7 or higher	Anaconda, Spyder, Pycharm or equivalent

2. Each entry/team will use a single workstation. The committee in-charge is responsible for ensuring that the teams have the same hardware and software requirements.

## THE BOARD OF JUDGES (BOJ)

1. The BOJ shall be composed of three (3) professionals or experts in the field of programming and must come from a third party committee who have no direct relation to any of the teams. They will convene to resolve any issue that may arise during the conduct of the competition.

## MECHANICS

1. Each team is provided with a computer unit installed with programming languages mentioned above.

2. The competition is good for three (3) hours.

### 2.1 Preparation:

- a. The first thirty (30) minutes shall be used to check and certify that the computer unit assigned to the team is free from any potential problem which could affect the team's chances of winning the competition. If the competing team certifies that the assigned computer is working properly, the facilitator shall instruct them to create a folder in their respective computer named after the team (e.g. Team1) with subfolders for the four problems, namely: Problem1, Problem2, Problem3, and Problem4. Equivalent folders for each team will also be created in the BOJ's computers.
- b. Only the team members, coaches, facilitator and BOJ are allowed to go inside the room.
- c. All coaches are not allowed to stay inside the room once the facilitator declares the "**The competition is about to start in 5 minutes**".

### 2.2 Competition proper:

- a. The second two and one-half (2 ½) hours are used for competition proper.
- b. Only the team members, time keeper per team, facilitator and the BOJ are allowed to go inside the room.
- c. Each team and member of the BOJ will be given hard copies of the machine problems. Soft copies of the machine problems will be pre-stored on the desktop of each competing team.
- d. Competing teams are given four (4) machine problems to solve within two and one-half (2 ½) hours.
- e. A timer, placed in an area visible to all teams and coaches, shall be used. The Facilitator shall give the signal to start the competition and record the official start time.
- f. The teams shall not be allowed to bring resources / materials such as books, manuals, program listings, or any machine-readable versions of software or data.
- g. The teams shall not be allowed to talk with anyone except members of their team and personnel designated by the facilitator / committee in-charge. Violation to this rule is subject for disqualification.

- h. Solutions to machine problems shall be submitted by saving the necessary files in the previously created subfolders. Submitted solutions shall include the source code and all external files required by the machine problem. Otherwise, the BOJ will invalidate the solution.
- i. There will be no break time. For any emergency cases (e.g. going to the washroom), the member shall ask permission from the facilitator and shall be allowed to leave the competition room if accompanied by any member of the competition committee.
- j. No team is allowed to continue answering the problems once the facilitator declared "END OF THE COMPETITION TIME".

#### 2.3 Submission of final answers:

- a. There will be only ONE TIME submission of final answers for Problems 1, 2, 3 and 4 within the competition time.
- b. The team shall inform the facilitator if final answers are to be submitted.
- c. The facilitator shall record the exact time of submission of each team.
- d. Once the facilitator marked submitted answers as "SUBMITTED THE FINAL ANSWERS" in the computer, the team shall not be allowed to reopen and resubmit the team's final answers for whatever reason.
- e. The Board of Judges will start checking the team's final answers.

#### 2.4 Checking of the Board of Judges

- a) The BOJ shall start checking the team's final answers once marked with "SUBMITTED THE FINAL ANSWERS"
  - b) The scoring sheet shall be used to record all scores for each answer per team.
  - c) The team shall be allowed to witness how the BOJ check their final answers.
  - d) Each answer is determined as accepted or rejected by the BOJ. Once all answers were checked by the BOJ, the teams shall be given a Red flag.
  - e) The time used by the BOJ is not part of the competition proper.
3. While the contest is scheduled for a particular time length of three (3) hours, the committee in-charge / facilitator, in consultation with the BOJ, has the authority to alter the length of the contest in the event of unforeseen difficulties. Should the contest duration be altered, all teams shall be notified in a timely and uniform manner.
4. A team may submit a claim of ambiguity or error in a problem statement by submitting a clarificatory request to the BOJ. If the BOJ agrees that an ambiguity or error exist, a clarificatory statement will be issued to all teams.
5. Each team will be assigned a timekeeper who will record the starting and end time of the team as per instruction by the facilitator.
6. A team may be disqualified by the BOJ for any action that jeopardizes the contest such as but not limited to dislodging extension cords, unauthorized modification of contest materials or distracting behavior.

## **SCORING OF THE COMPETITION**

1. A team shall get a maximum of 100 points. Scoring per answer is based on the table below:

Points	Remarks
25 points	Correct or accepted answer
0 point	Incorrect or No answer

2. Teams are ranked according to the number of points earned. The team with the highest points will be declared TOP 1; the 2<sup>nd</sup> highest points will become the TOP 2; and so on.
3. If two or more teams have the same points, ties are broken in favor of the team with the earliest time of submission as recorded by the time keeper.
4. If two or more teams have the same score AND time of submission, tie breaking programming question will be given to the teams which shall be answered in 30 minutes.
5. If tie still occurs, same process, as presented in Item #4, shall be done.

## **WINNERS IN THE COMPETITION**

The TOP 3 winners shall be named Champion, 1<sup>st</sup> Runner-up and 2<sup>nd</sup> Runner-up and shall receive medals and certificates.

## **FILING OF PROTEST**

1. Only coaches may file protests to the BOJ during the competition. Protests must be based on one or more of the following circumstances: violation of the competition rules, misconduct by the teams, or gross misconduct by contest officials.
2. Controversies and objectives will be resolved by the BOJ immediately before the conclusion of the competition.
3. The decision of the BOJ is final and irrevocable.



# Institute of Computer Engineers of the Philippines

SEC Reg. No. 201120675

## PROGRAMMING COMPETITION OFFICIAL ENTRY FORM National Competition

**Region:** \_\_\_\_\_

**School:** \_\_\_\_\_

**Participants:**

Name	Year Level	Signature
1.		
2.		

Submitted by:

\_\_\_\_\_  
*Signature over Printed Name of Coach*

Endorsed by:

\_\_\_\_\_  
*Signature over Printed Name of ICpEP Regional Chapter President*





# Institute of Computer Engineers of the Philippines

SEC Reg. No. 201120675

## PROGRAMMING COMPETITION OFFICIAL ENTRY FORM Regional Competition

**School:** \_\_\_\_\_

**Participants:**

Name	Year Level	Signature
1.		
2.		

Submitted by:

\_\_\_\_\_  
*Signature over Printed Name of Coach*

Endorsed by:

\_\_\_\_\_  
*Signature over Printed Name of Program Chair*