

# The 2023 ICPC Asia Jakarta Regional Contest Rules

## The Problems

The teams will compete to solve the given problems (typically 10 to 13 problems) in 5 hours of contest time.

Each problem has the following components:

- Problem description – the description will be given in English.
- Input specification – details on the input format, including the input constraint.
- Output specification – details on the output format.
- Sample input/output.

Each problem has a time-limit and memory-limit constraint for its solution, i.e. the solution should run within the allowed time-limit and memory-limit to produce the correct output. The time-limit and memory-limit will be broadcasted at the beginning of the contest through the contest management system (DOMjudge).

You may find the problems from the previous ICPC Jakarta as examples in [TLX](#).

During the contest, teams may ask for clarifications about the problems using the contest management system (DOMjudge). If the judges agree that an ambiguity or error exists, a clarification will be issued to all contestants.

## Solutions/Submissions

Each team should submit their solution (source code) through the contest management system (DOMjudge) anytime during the contest time.

A problem is considered as **solved** by the team if a verdict of "CORRECT" is given to the corresponding submission by the contest management system (DOMjudge).

Each submission may get one of these responses from the contest management system (DOMjudge):

- **CORRECT** - the solution produced the correct output within the time and memory limit without any error. The corresponding problem is considered solved.
- **WRONG-ANSWER** - the solution did not produce the correct output.
- **RUN-ERROR** - the solution crashed (runtime-error) when processing the test data or the solution consumed more memory than the allowed memory limit for the problem (Memory Limit Exceeded).
- **TIMELIMIT** - the solution took more time to produce the output than the allowed time-limit for that problem.
- **NO-OUTPUT** - the solution produced no output.
- **COMPILER-ERROR** - the solution could not be compiled.

No other details will be given to each response.

# Fair Competition

A team may be **disqualified** if the team is found to be cheating. Cheating involves any attempt or activity by an individual or groups (team members and/or coach) to enhance or diminish their performance or other teams' performance by means other than actual ability related to the contest, including but not limited to efforts such as submitting a solution which is not their own, hacking (successful or not) the contest management system, dislodging extension cords, or distracting behaviour. All teams should uphold the sportsmanship and the spirit of fair competition.

# Ranks

Teams are ranked according to the most problems solved. Teams who solve the same number of problems are ranked by the least total time. The total time is the sum of the time consumed for each solved problem (in minutes). The time consumed for a solved problem is the time elapsed from the beginning of the contest to the submittal of the correct solution plus 20 penalty minutes for every previously incorrect solution for that problem. Submissions with verdict COMPILER-ERROR are not penalized.

# Programming Languages

The supported programming language for The 2023 ICPC Asia Jakarta Regional Contest are:

- C
- C++20
- Java
- Python 3

Note that a Python solution can be much slower compared to the other two programming languages, thus, we **do not** guarantee all the problems can be solved with the time-limit constraint with Python even though the same algorithm is being used. Nevertheless, you may use Python as you see fit.

At the onsite contest (The 2023 ICPC Asia Jakarta Regional Contest), each contestant's PC is installed with:

- C/C++20: g++ 11.3.0
- Java: javac 11.0.11
- Python: python 3.10.9

The server/grader is installed with:

- C/C++20: g++ (Ubuntu 11.3.0-1ubuntu1~22.04.1) 11.3.0
- Java: javac 11.0.17
- Python 3: python 3.10.6

The compile/run options used for each of the languages are:

- C: -x c -Wall -static -pipe -DONLINE\_JUDGE -DDOMJUDGE -lm

- C++: -x c++ -std=c++20 -Wall -O2 -static -pipe -DONLINE\_JUDGE -DDOMJUDGE
- Java: -XX:+UseSerialGC -Xss64m -DONLINE\_JUDGE -DDOMJUDGE

## Contest Environment

Each team will compete with a PC with the following specifications.

Operating System	: Windows 10
Hardware Specification	: HP Prodesk 400 G3 Desktop : HP 82A5 (U3E1) Intel Core i5 7500T @ 2.70GHz HDD 931GB Hitachi HGST HTS721010A9E630 (SATA) RAM 8GB Single-Channel Unknown @ 1197MHz (17-17-17-39) Keyboard PR1101U
IDE and Editor	: Eclipse <a href="#">2020.06R</a> Notepad++ <a href="#">8.5.7</a> Dev-C++ <a href="#">6.3.0</a> Sublime Text 4 <a href="#">Build 4152</a> Visual Studio Code <a href="#">1.79.2</a>
Contest Management System	: DOMjudge 8.2.2

All teams will have the same PC specification.

## Team Notebook

Each team may bring a reference material (also called *team notebook*) to the contest with the following limitation.

- It may contain up to 25 pages of reference materials on letter-size or A4-size paper; page number should be printed/written on each page.
- Team name and university name should be printed/written on the top-right of the first page.
- It may contain code listings, algorithms, hints, or any other necessary notes.
- At most three exact copies per team.
- Text and illustrations must be readable by a person with correctable eyesight without magnification from a distance of 0.5 (half) meters.

## Additional Items

Each team may also bring the following items.

- At most 5 blank papers/graph papers (the committee will provide blank papers)
- Stationery, e.g., pen, pencil, eraser, ruler, etc.
- English dictionary (only printed; no electronic version is allowed).
- Plush doll/stuffed animals (as long as it will not disturb other teams).

Please bring the additional items (if any) during the practice session. Then, leave the items on your desk. All those items are subject to judges' inspection before the contest. No other materials are allowed to be in the contestant's area.

Additional blank papers will be provided to each team.

Teams are **not allowed** to bring the following items to the contest area.

- Any digital materials, e.g., e-books, softcopy codes, etc.
- Any digital devices, e.g., flash disks, external HDD, etc.
- Any electronic devices, e.g., mobile phone, smartphone, smartwatch, calculator, laptop, etc.

Teams are **NOT ALLOWED** to substitute the provided keyboard with their own.

## Attendance

All team members must attend all required events, particularly, the Onsite Registration, Opening Ceremony, Practice/Trial Session, Contest Proper, and Closing Ceremony. Failure to attend any required event will result in disqualification and forfeiture of prizes.

## Onsite General Rules

Due to the general policy at BINUS University, please make sure you comply with the following rules when visiting BINUS University:

- You are not allowed to wear shorts or short skirts.
- You are not allowed to wear sandals.

Contestants and coaches should wear the contest T-shirt as an outer-most garment at all times. Any additional clothing must be worn underneath the contest T-shirt. Contest T-shirts will be distributed on the onsite registration.