

Rules and Regulations

Decoherence Team 2020

1. Definitions :

- (a) “Rules” refers to this “Decoherence 2020 Rules” document only, except if explicitly indicated otherwise.
- (b) “Competition” refers to the Decoherence 2020 Competition at Pravega 2020.
- (c) “Organisers” refer to the organising committee of the Competition.
- (d) “University” is defined in 2.(a)

2. Eligibility:

- (a) Institutional Eligibility :Institutions that are recognised as tertiary education institutes in India and accepted as such by the Organisers will qualify as “Universities” for the purpose of the competition.
- (b) Individual Eligibility: A person who, at the Competition date, is enrolled in a course of study at a University that has been accepted into the Competition, can participate in the Competition, provided:
 - i. They have not participated more than three times previously (through any University).
 - ii. At the Competition date, they have been a tertiary student in a relevant discipline for less than four full time equivalent years.

3. Registration :

- (a) Students at a University who wish to participate must register themselves through pravega.org/decoherence upto 24 hours before the start of the first prelims.
- (b) The student has to demonstrate to the satisfaction of the University and the Organisers that they satisfy the Individual Eligibility conditions under 2.(b)
- (c) At the time of registration, the student has to certify, using the pro forma registration form, that they will :
 - i. adhere to the rules of the Competition and in particular
 - ii. not communicate exam solutions to anyone except their partner before the end of each exam

4. Exam

- (a) The Organisers will determine the date of the examination annually and make it public before entries are invited.
- (b) All the exams shall be open book exams.
- (c) The examination shall be conducted in roughly two parts :
 - i. Prelims :
 - A. This part of the Competition shall be held only online.
 - B. The prelims will have two parts, namely, Objective and Subjective.
 - C. The Objective prelims shall be held as follows :
 - 1. The Objective part of the prelims shall be held twice on the same day with two different question sets with Objective-type questions.
 - 2. From each part, 40% of the attending candidates shall be selected for the Subjective part.
 - 3. All teams can attend both rounds with the exceptions of the ones which have already been selected for the Subjective round.
 - 4. The two instances of holding the Objective prelims shall be from 12 PM to 1 PM and

from 7 PM to 8 PM.

5. About 3 hours after the completion of each Objective prelims, the selected candidates of the same round shall be declared on the Competition website.

6. The final selections for the Subjective prelims shall be announced with the results for the 2nd Objective prelims.

D. The Subjective prelims shall be held as follows :

1. Only the teams selected for the Subjective prelims are allowed to submit their solutions to the Organisers.

2. The Subjective prelims will be held exactly the day after the Objective prelims.

3. The problems for the Subjective prelims will be uploaded on the website at 0000 hours. All problems posted will be Subjective-type problems

4. The Subjective prelims will last until 2359 hours on the same day. All the submissions must reach the Organisers by then.

5. The method of submission will be made clear by the organisers atleast 48 hours before the exam.

6. Of the total number of participants, exactly 15 participants will be selected for the finals.

7. The results of the Subjective prelims will be announced on the competition website within 1 week of the Subjective prelims.

ii. Finals :

A. This part of the Competition shall be held on-spot during Pravega 2020.

B. The finals will happen over a course of three days with a total of two events, namely the Implementation and Brainboxing.

C. The Implementation stage will last exactly 24 hours and start on the afternoon of the first day of Pravega 2020.

D. During this event, the teams will be divided in groups of 3 and each group will be given one open problem to examine.

E. During the Implementation, the teams are expected to theoretically and experimentally analyse the given problems and present a report to the Organisers by the end of 24 hours.

F. For experimental analysis, open access to UG Physics labs will be provided for the full period of 24 hours.

G. The specifics of report submission will be made clear before the start of the Implementation.

H. After the report submission, from each group, exactly one team will be chosen (the one with the best report and methods) for a presentation at the Brainboxing.

I. The Brainboxing will be held on the last day of Pravega. This will be open to all audience.

J. The participants will be judged on the basis of their presentation and a few other parameters which will be made clear on the day of the event itself.

5. Scoring

(a) Grading and scoring decisions are final and no correspondence will be entered into.

(b) Scores will be computed for each participating team and will be the sum of scores for the solutions submitted to each problem by that team.

(c) For Objective prelims,

i. The scoring scheme of this part of the prelims will be made clear along with the examination itself.

ii. The score obtained in this section is only for testing eligibility for the Subjective prelims and these results will not be taken into account

(d) For Subjective prelims,

i. This part of the prelims will consist of 8 (eight) Subjective problems.

ii. Only the scores for this part would be considered while selecting teams for the finals.

iii. Each problem is graded on a scale from 0 to 10, with the possible exception of the open problem, which is intended to separate the top students.

iv. The 8th question will be an open question and would be considered for the tie-breaking in case of two teams having the same total scores.

- v. Multiple solutions or attempted solutions to problems may be submitted and will be considered by markers.

- (e) For Finals, the marking scheme will remain confidential unless the Organisers decide otherwise.

6. Results

- (a) The Organisers reserve the right to perform statistical analysis on results by location, as well as relying on other reasonable means to identify suspected irregularities.
- (b) In case of suspected irregularities, the Organisers will have the right to withhold team scores from the overall results pool until the matter is resolved.
- (c) Where the Organisers are satisfied that a team has broken one of the Rules, they retain the right to disqualify the team.
- (d) Where a person has previously been disqualified, the Organisers reserve the right to refuse registration for future Competitions by that person.
- (e) Further summary information that does not identify particular individuals or Universities may be posted on the website.
- (f) Problems and solutions (if any) will be published on the website in due course.

7. Prizes

- (a) The prize pool comprises ₹42000 in total, with additional corporate prizes and internship opportunities available to some entrants.
- (b) The distribution of the prizes are,
 - i. First Prize : ₹20000
 - ii. Second Prize : ₹10000
 - iii. Best Theoretical Analysis : ₹5000
 - iv. Best Experimental Analysis : ₹5000
 - v. Best Solution to the Last Subjective problem : ₹2000
- (c) In the event of a draw, the Organising Committee will determine awards at their absolute discretion. In general, the awards will be based on three principles:
 - i. Total prize money will not be reduced.
 - ii. competitors with the same score will be awarded the same place and the same amount of prize money.
 - iii. no competitor will receive a larger amount of prize money than any higher-placed competitor in the same category.

8. Miscellaneous

- (a) The Organisers may, without notice, amend the Rules at any time by posting an amended version at the Competition website.
- (b) Unless otherwise specified, all exam papers will be set in English, and all submitted responses must be in English.
- (c) For attending the finals at Pravega 2020 at IISc, Bangalore, a travel allowance (TA) of ₹2000 or 3rd AC Train Fare (whichever is lower) per team will be provided.
- (d) The Organisers will make arrangement for the boarding and stay at IISc, Bangalore for a period of 3 days during Pravega 2020.