Rules and Regulations - Spooky Quizzes

August 2020

1 General Rules

The quiz consists of three parts - a Theoretical Objective followed by an Experiment Analysis Objective round and lastly, a Subjective Final round. First week will be theoretical quiz followed by experiment analysis quiz and subjective round next week. Timings will be communicated at least 2 days prior to the quiz.

1.1 Theoretical Round

- The theoretical round will consist of a set of 30 multiple choice questions and a time of 120 min will be given to solve them. 10 min buffer time is given at the end for technical issues(if any).

- Question paper will be uploaded on the website and the file is password protected. We will mail the password 5 min before commencement of quiz and will also be uploaded on website. Instructions regarding how to submit your answers, etc will be uploaded on the website at least two days before the quiz. Participants are advised to go through them before exam to save time.

- The questions will have both Single and More Than One Option Correct questions. There will be 20 Single correct and 10 Multiple Option Correct Questions.

- The Single correct will fetch a score of +1 if answered correctly and 0 in any other case. The more than one option correct will have +2 for all correct options marked. In case of partially marked correct answers each correct option will fetch +0.5. If any incorrect option is marked, no marks will be awarded.

1.2 Experiment Analysis Round

- For this round, a short video will be given to all the participants. The video will be based on some experiment on some topic of physics.

- The first round will be short quiz with 15 questions of single correct option type, and 5 questions with more than one option correct type, and the quiz will be for 45 min. 10 min buffer time is given at the end for technical issues(if any).

- Question paper will be uploaded on the website and the file is password protected. We will mail the password 5 min before commencement of quiz and will also be uploaded on website. Instructions regarding how to submit your answers, etc will be uploaded on the website at least two days before the quiz. Participants are advised to go through them before exam to save time.

- The questions will have same marking scheme as for the theoretical round.

- The questions will be based on the experiment in the video and/or related topics.

- A leader board will be prepared with the combined score of both the experimental and theoretical rounds. Both the rounds will have their individual cutoffs.

1.3   Final (Subjective) round

- The top 5 will be called for the final round, which will be a subjective round. The paper can mainly be divided in two parts - A Data Analysis Section and a purely Theoretical Question Section. There will be 1 Data Analysis Question and 1 or 2 theoretical questions.

- Data Analysis - A set of data will be provided. If the experimental setup needs to be known for a particular question, the diagram of the setup will be provided. Questions will be mainly related to analysis of the data set and few related theoretical questions. Candidates are advised to be comfortable with some data plotting software. For those who are not as such familiar with any such program or software, they can try SciDAVis, which is an open source software for data analysis and plotting. We strongly recommend such participants to start getting familiarized with SciDAVis (or any similar analysis software) as soon as possible as if he/she is selected for the final round, it will prove to be really helpful. Plotting in any way is accepted (using some software, with some code or by hand on a graph paper; if code is used only the plots and code is required, if a graph paper is used, clear picture or scan of the plot should be attached).

- Theoretical Section - There will be long theoretical questions, which may be divided into sub parts. Explanation and clarity of answers will carry marks. If some question aims at finding some value, just writing the answers won't fetch any score. Appropriate workings are necessary.

- The question(s) will be mailed to the selected candidates and candidates should mail their solutions to decoherence.pravega@gmail.com. Only PDF or word format will be accepted. Though in special cases, with prior information with valid reasons from the participant, other ways of submission may be considered.

- Duration of subjective round will be somewhere between 8-12 hrs which will be declared at least 3 days prior. No late submission will be accepted.

- If any paper or article or book is referred extensively for solving a particular question, the candidate MUST cite the source. If there is such an answer as it is very clearly evident to have been taken from some paper or article (any results or any formulae), but there is no citation, penalty may be imposed and in the worst case, no marks will be awarded for that question.

- It is better to submit a typed report than a handwritten one, preferably use LaTeX. No deductions will be done for handwritten submissions.

- Scoring of this round will be independent of the previous rounds.

- The total marks for the questions will be mentioned. If there are some sub-parts, the marks allotted to the parts will also be mentioned.

- The final grading scheme wont be revealed to participants. If a participant wants to know about his/her performance or is not satisfied with the score, we may provide a brief analysis of the answers ans where the answers were wrong to the respective participant.

- The participants are expected not to share or discuss answers among themselves. For the subjective part, if two reports are too similar in content and structure, then they can be charged with plagiarism and penalty may be imposed. In the worst case, their participation may be cancelled.

2 Prizes and Awards

- All the five participants selected for the final round will be issued e-certificates.

- The top two candidates will be given cash prizes. The topper will be given a cash prize of Rs 1000. The runner up will receive Rs 500 as award.

- In case the number of participants who appeared for BOTH the quizzes is less than five, organizers reserve the right to put a cut-off to be eligible for prizes. Organizers decision will be final and we try our best to keep it reasonable.

3 Handling Ties

- In choosing the top 5 candidates for the final round, if there is a tie between two or more participants, the participant(s) with more score in the "More than One Option Correct" section (theoretical and experiment analysis round combined) will be selected for the final round. If a tie occurs between two or more participants even after this, all of them will be allowed to appear in the final round.

- It is unlikely that there will be any ties in the final (subjective) round. If such a case arises, then, depending on the situation, participants will be informed about the tie-breaker (if any) or how the tie(s) will be handled.

4 Handling Network Issues

In case any participants face any network issues or online submission problems, he/she can avail either one of the following submission methods.

- The participant(s) can text message (SMS) the answers to us (phone numbers are given below).

- The participant can call in one of the two numbers (given below) and dictate the answers.

Phone numbers: 8017405651 (Soumyadeep Bhattacharjee, Decoherence Coordinator) and 9573254126 (Perugu Rishik, Decoherence Coordinator)

In any case, the participant MUST inform (by calling or sending a text message in one of the above numbers) as soon as they face a network issue (they should include their name and registration number in the text message). If the network issue gets resolved later, he/she MUST also let us know immediately.

In cases of such online submission problems, the concerned participants will be given 10 min extra time for submission. No more extra time will be granted in any case.

This is keeping in mind the objective round. For the subjective round, as the duration is quite long, hopefully no one would face any issues. Even then if someone faces any problem, he/she MUST IMMEDIATELY contact in any of the above numbers and inform us. We will try our best to find a way to settle the issue.

5 Eligibility

Any candidate who at the date of writing the quiz studies in class 11 or above(till third year of UG) and have not started his/her fourth year of UG college education can appear for the contest. The questions will be of UG level, though it will be open for any motivated high school student. Some questions may be on topics taught at college level and normally is not a part of high school syllabus. Scoring, leader board will be common for all participants.

6 Schedule

The quiz will be conducted over two consecutive weekends. The quiz will start with the Theoretical round. The theoretical quiz will be conducted on Sunday. Time will be informed to the participants at least 2 days prior to the quiz. The Experiment Analysis round will be conducted the next weekend. The Video will be uploaded around 10 min before the start of the quiz. General instructions regarding the quiz will be uploaded on the website at least two days prior to the quiz. Time will be informed to candidates at least 2 days prior to the quiz. The selection and the cutoffs will be declared by Saturday night. The subjective questions will be given on Sunday morning. The final results and prizes will be declared next week.

7 Solutions

After each round, the solution(s) will be uploaded on the web-page. For the final round we may or may not upload solutions depending on the question. If some questions is an open question (still no formal solution exists) we wont upload any solution. Otherwise, a short solution may be uploaded.

8 Miscellaneous

- The participants are expected not to share or discuss answers among themselves for all the rounds.

- The participants are required to abide by the above rules and regulations. Any changes made in the rules and regulations will be informed to the candidates. Organisers reserve the right to change the rules and regulations at any point of time.

- In case of any conflict, organiser's decision is final and binding.

- All quizzes will be sent in English and all responses must be submitted in English.