

Integration Bee

30 minutes. 100 integrals. Solve as many as you can.

This is a team event for only Freshers

2 participants per team

Minimum 3 teams per pool

Judges - Science Coffeehouse coordinators

Judging Criteria - The event will consist of 100 integration problems of varying difficulty, each having a weightage of 1 point. No partial points will be given, the full point is only awarded if the final answer is correct. For indefinite integrals, the final answer will be a function; full points will be awarded if and only if the provided function differentiates to the integrand. For definite integrals and improper integrals, the final answer will either be a number (real or complex) or infinity (positive or negative); full points will be awarded if and only if an exact answer in terms of known constants (the full list of allowed constants will be given with the question paper; it will include numbers like pi, e and square root of 2). Numerical answers will not be given any points unless they are exact. (Thus, if the actual answer is e, the answer 2.718 will be given no points, but if the answer is $\frac{3}{5}$, full points will be awarded for the answer 0.6).

What If

Participants are required to give creative but scientifically sound answers to atypical "what if.." questions. There is no upper limit to the length of the answers. Minimum length 300 words. Points will be given for creativity, scientific accuracy and apparent absurdity. For a model of such questions and their solutions look up what-if.xkcd.com. Bonus points if the scenario ends in an apocalypse. Extra bonus points if it ends in a zombie apocalypse.

This is a Freshers only individual event.

Minimum 2 entries per pool

Judges - Science Coffeehouse coordinators (one from each pool)

Judging Criteria -

Creativity - 50%

Scientific Accuracy - 25%

Absurdity - 25%

The bonus points for apocalyptic ends will be up to 20% of the total points, depending on the originality of the apocalypse.