

## **DBMS Lab 2021-22 Spring Semester**

### **Lab Day 2 (January 13, 2022) – 100 Marks**

Consider that we need to model the data required for managing Inter-IIT Sports Meet. In the meet, there are various events. Different IITs can participate in one or more of these events. For team events, there is a team from the IITs interested in participating in that event. For non-team events, multiple participants can compete from each IIT as individuals. For each event, we need to get the names (individuals or teams) of the first, second and third place holders. Also, there is a score for each of these positions, which could be different for different events. The data should be maintained in such a way that we can generate the final ranking of the different IITs. One individual can participate in at most one event. We need to know the names of team members in each team event for every IIT. Similarly, we need to know the names of all individual participants in the non-team events for every IIT.

Draw an Entity-relationship (E-R) diagram for capturing the above-mentioned information on a piece of paper, clearly identifying all the entity sets (strong and weak if any), relationship sets, cardinalities, participation and attributes (including the type of attribute like key attribute, multi-valued attribute, derived attribute, etc.). You are free to choose meaningful attributes for the entities and relations but the above-mentioned requirements need to be satisfied. State all assumptions that you make. They should be reasonable.

Submit (a) A scanned copy of the piece of paper where you have drawn the ER diagram, (b) Exported output of the ER diagram and (c) Image file for the ER diagram (Name them as Lab2\_<Roll\_no>\_<serial\_number> with appropriate extensions) through Moodle for Lab Day 2.

*[Penalty for plagiarism/copying: You will be awarded 0 in all the problems for the lab day and an additional 5 marks will be deducted out of the total of 40 in Lab. All persons involved will be awarded the same penalty irrespective of who has copied from whom]*