DBMS Lab 2019-20 Spring Semester
Lab Day 3 (January 21, 2020) – 100 Marks

[Penalty for plagiarism/copying: You will be awarded 0 for all the problems for the lab day you were involved in plagiarism/copying 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. Decision of the lab teachers is final in this respect.]

Consider the data model for Inter-IIT Sports Meet in assignment for Lab Day 2. There is one change: Any participant can take part in any number of events (Team or Individual). Also, note that, there is (different) point for only the first three positions. For all other positions, there is zero point. The terms "Teams" and "IIT Names" are used interchangeably.

For this system, we need to answer the queries mentioned below. Accordingly, you may update the ER-Diagram you have drawn and submitted against Lab Day 2 assignment 1. Draw the updated (or the previous one if there is no change) ER Diagram on paper. From the ER-Diagram, derive the tables using correct rules for relational model generation from ER model. Draw the tables on the piece of paper provided. Clearly mark the columns, primary keys and foreign keys as appropriate for each table. This forms your database schema.

Create the tables as drawn on the paper in MySQL database using appropriate Create table SQL statements. You may choose appropriate data types for each column. Write SQL statements to answer the queries given below. You may test the SQLs by inserting appropriate rows in the tables. Note that, your database schema must correspond to the (updated) ER-Diagram you are submitting.

Write your roll number, name and PC number on the piece of paper where you have drawn the ER diagram and the database schema.

1. List the players for each event (Event Name, IIT Name, Player Id, Player Name).
2. List the players who have participated in more than one event (IIT Name, Player Id, Player Name).
3. List the players who have secured first position in one and only one event (IIT Name, Player Id, Player Name, Event Name).
4. List the players who have participated in one or more team events but not in any individual event sorted according to descending order of the number of events participated by him or her (Player Id, Player Name, IIT Name, Team Event Name).
5. List the players along with their total individual event points and total team event points in descending order of their individual event points and within that in ascending order of their team event points (Player Id, Player Name, Total Individual Event Points, Total Team Event Points).
6. List the teams that have scored more total individual event points than total team event points (IIT Name, Total Individual Event Points, Total Team Event Points).
7. List the teams that have got more total individual event points than the average of total team event points of all teams (IIT Name, Total Individual Event Points).

(a) Submit the piece of paper where you have drawn the ER diagram and the database schema.
(b) Through Moodle, submit a zip file containing the image files for the ER Diagram and the Database schema and a text file containing your Create & Select SQL statements. (Name it as Lab3_<Roll_no>.zip).

[10 Marks for ER model + 25 Marks for Database schema + 16 Marks for Create Table SQLs + (7×7=49 marks for Select SQLs)]