**PG-DMC - JAVA Lab Exam Date: 17/10/2016**

**Total marks: 50**

**Time: 2 hrs**

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| **1.** | Student database   * 1. Study the student database provided.   2. Take “user-id” and “password” as an input from user(.jsp page)   3. Authentic the user using a Servlet and a Hibernation connection with Database   4. For a valid user display “name” “marks” “grade” (.jsp page)   5. Display invalid user (.jsp page) | **40**  **10**  **10**  **10**  **10** |
|  | **OR** |  |
| **1.** | Music Player   * + 1. Study the song database provided.     2. Ask user for his favourite singer by providing a drop-down menu (.jsp page).   (Provide the drop-down menu dynamically from database.)   * + 1. Retrieve all the songs by the selected singer in a collection.     2. Iterate over the collection to display the song titles in ascending order on a .jsp page. | **30** |
| **2.** | Web – Based Arithmetic Calculator   * + 1. Take two values from user and provide a list of operations to user.     2. Based on the operation display the result.   (**Note**: Use *JDBC* to connect to database and ***Jstl*** tags to iterate over the collection) | **10** |
| **3.** | Player Database   * + 1. Study the player database.     2. Write a method to insert a new player into the database using Hibernate.     3. Store all the players in a collection in descending order with respect to their batting average and display their names on the *Browser*. (sort the collection using Criterion object of hibernate framework) | **30** |