**ARYA INSTITUTE OF ENGINEERING AND TECHNOLOGY, JAIPUR**

**SYLLABUS- B.TECH IV YEAR, VIII SEMESTER**

**8CS4-21: BIG DATA ANAYTICS**

**Lecturer Name: Arpita Tewari**

**No. Of LABS Required: 21**

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| NO OF EXPERIMENTS | TOPICS | LAB REQUIRED | Extra work | | | |
| 1 | INTRODUCTION TO JAVA |  |  | | | |
| EXP-0 | Analyze the different java programming | **1** | Write a programs in Java for Ubuntu | | | |
| Define, use, and differentiate such concepts as JSP JAVA PACKAGES. | Simulation of Java. | | | |
| Analyze GFS and DFS Data storages | Simulation in hadoop | | | |
| Explain JDK,JRE and JVM |
| EXP-1 | Implement the following Data structures in Java I) Linked Lists ii) Stacks iii) Queues | **2** |  | | | |
| EXP-2 | Implement the following Data structures in Java IV) SET V) MAP | **2** |  | | | |
| EXP-2{1} | Define Linux, Linux Distribution, Difference between Linux and Ubuntu, Features of Ubuntu | **1** |  | | | |
| EXP-5 | **Perform setting up and Installing Hadoop in its three operating modes:**  **I) Standalone**  **II) Pseudo distributed**  **III) Fully distributed.** | **3** |  | | | |
| EXP-3 | Adding files and directories implement the following file management tasks in Hadoop: Retrieving files Deleting files Hint: A typical Hadoop workflow creates data files (such as log files) elsewhere and copies them into HDFS using one of the above command line utilities. | **3** |  | | | |
| EXP-4 | Run a basic Word Count Map Reduce program to understand Map Reduce Paradigm. | **1** |  | | | |
| EXP-5 | Write a Map Reduce program that mines weather data. Weather sensors collecting data | **1** |  | | | |
| EXP-6 | Implement Matrix Multiplication with Hadoop Map Reduce | **1** |  | | | |
| EXP-7 | Install and Run Pig then write Pig Latin scripts to sort, group, join, project, and filter your data. | **2** |  | | | |
| EXP-8 | Install and Run Hive then use Hive to create, alter, and drop databases, tables, views, functions, and indexes. | **2** |  | | | |
| EXP-9 | Solve some real life big data problems. | **2** |  | | | |