**POORNIMA UNIVERSITY, JAIPUR**

**END SEMESTER EXAMINATION, November 2022**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **2BC3178** | Roll No. | Total Printed Pages: 1 |
| **2BC3178** |  |
| BCA II Year III-Semester (Back) End Semester Examination, November 2022  **(AI&PA)** | |
| **BAP03107.3 : Big Data Analytics** | | | |

# Time: **3** Hours. Total Marks: **60**

Min. Passing Marks: **21**

Attempt **five** questions selecting one question from each Unit. There is an internal choice from Unit I to Unit V. Marks of each question or its parts are indicated against each question/part. Draw neat sketches wherever necessary to illustrate the answer. Assume missing data suitably (if any) and indicate the same in the answer.

Use of the following supporting material is permitted during examination for this subject.

# **1.--------------------------Nil--------------------** **2.------------------Nil-----------------------**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | **UNIT-I (CO1)** | **Marks** | **Bloom Level** |
| **Q.1** | **(a)** | Retail Companies will have to analyse what can be a high volume of data coming in varying formats, and then create segments according to customer behaviour. Suppose you are a Big Data Engineer who identifies sophisticated use patterns and elaborates the whole idea. | **(6)** | Evaluation |
|  |  |  |  |  |
|  | **(b)** | Elaborate how Big Data help organizations to understand and analyse, what the customers. | **(6)** | Analysis |
|  |  | **OR** |  |  |
| **Q.2** | **(a)** | How Data velocity applies to the retail industry discusses a few examples. | **(6)** | Understanding and remembering |
|  |  |  |  |  |
|  | **(b)** | If your organization is still grappling with how to become more data-driven How Big Data Will Help explain with some examples. | **(6)** | Application |
|  |  | **UNIT-II (CO2)** |  |  |
| **Q.3** | **(a)** | What is cluster size in Hadoop? | **(6)** | Analysis and application |
|  |  |  |  |  |
|  | **(b)** | Elaborate the Master-Slave Architecture, with a suitable diagram. | **(6)** | Remembering and analyzing |
|  |  | **OR** |  |  |
| **Q.4** | **(a)** | Describe the structure of HDFS in the Hadoop ecosystem using a diagram? | **(6)** | Application |
|  |  |  |  |  |
|  | **(b)** | Why Hadoop is called a Big Data technology? Explain how it supports Big Data? | **(6)** | Analysis |
|  |  | **UNIT-III (CO3)** |  |  |
| **Q.5** | **(a)** | Describe the component of HDFS? | **(6)** | Application |
|  |  |  |  |  |
|  | **(b)** | What is Name node & Data Node in Hadoop Architecture? | **(6)** | Creating and understanding |
|  |  | **OR** |  |  |
| **Q.6** | **(a)** | Explain the Hadoop cluster with an appropriate diagram. | **(6)** | evaluating |
|  | **(b)** | Who handle the heartbeat messages elaborate the concept with a diagram? | **(6)** | analysing |
|  |  | **UNIT-IV (CO4)** |  |  |
| **Q.7** | **(a)** | What is the role of “combiner” in the Map-reduce framework? Explain with the help of an example. | **(6)** | Knowledge |
|  | **(b)** | Give an example for Map Reduce calculations? | **(6)** | Knowledge |
|  |  | **OR** |  |  |
| **Q.8** | **(a)** | What are the configuration parameters in a Map-Reduce? | **(6)** | Analysis |
|  | **(b)** | How Data flows in Map reduce? Illustrate with a diagram. | **(6)** | Analysis |
|  |  | **UNIT V (CO5)** |  |  |
| **Q.9** | **(a)** | What do you mean by Apache Oozie? What are its contents? | **(6)** | Understanding and evaluating |
|  | **(b)** | List down the entities of Yarn? | **(6)** | knowledge |
|  |  | **OR** |  |  |
| **Q.10** | **(a)** | Distinguish between Hadoop 1.0 and 2.0? | **(6)** | Analysis and understanding |
|  | **(b)** | Explain what happens when the data node fails and how Hadoop handles this situation explain your answer with a diagram. | **(6)** | Evaluate |