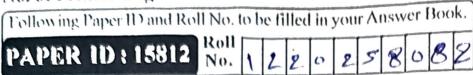
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## **BCA Examination 2023-24**

(Even Semester)

### **BIG DATA FUNDAMENTALS**

Time: Three Hours] [Maximum Marks: 60

**Note:** Attempt all questions.

### SECTION-A

- 1. Attempt all parts of the following:  $8 \times 1 = 8$ 
  - (a) What is Big data and explain its types?
  - (b) Write 4V's in big data.
  - (c) What is the shell name of Pig?
  - (d) What is the role of Oozie in hadoop?
  - (e) Write the main between Haddop 1.X and Hadoop 2.X.

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- (f) Write any two advantages of hive.
- (g) What is hadoop cluster and explain its types?
- (h) What are the advantages of Apache Pig?

### SECTION-B

- 2. Attempt any two parts of the following:  $2\times 6=12$ 
  - (a) Explain with an example how word count job is process in map reduce.
  - (b) How can big data be used to address societal challenges, such as healthcare, education and climate change?
  - (c) What are the different security services in HDP?
  - (d) Explain data analytics with its types in brief.

### SECTION-C

- **Note:** Attempt all questions. Attempt any two parts from each questions.  $8\times5=40$
- 3. (a) What is RDBMS? Explain different types of SQL commands with examples.
  - (b) Describe the working of name node and data node in HDFS architecture.

- (c) Explain the evolution and history of hadoop.
- 4. (a) Explain the Hortonworks data platform in brief.
  - (b) Differentiate between relational database and Hbase.
  - (c) Explain the purpose of apache ambari in the HDP.
- 5. (a) Describe hive architecture with its components.
  - (b) Explain the functionality of Pig and Oozie in Hadoop.
  - (c) What is Sqoop? Why we need scoop in hadoop? By default, how many mappers are working in scoop.
- 6. (a) Explain the nature and purpose of Apache Spark. What is the role of RDD in Spark?
  - (b) Explain any five commands of linux with examples.
  - (c) Explain YARN architecture and how hadoop runs a map reduce job using YARN.

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