

Roll No.

Total Pages : 3

MCA/M-22

24641

BIG DATA AND PATTERN RECOGNITION

Paper-MCA-20-41

Time Allowed : 3 Hours]

[Maximum Marks :.75

Note : Attempt **five** questions in all, selecting **one** question from each Unit. Question No. 1 is compulsory. All questions carry equal marks.

Compulsory Question

1. Write short notes on the following: 15
 - (a) Differentiate between Structured, Unstructured and Semi-structured data.
 - (b) Who is responsible for growth of Big data and why ?
 - (c) How to adopt Big Data governance ?
 - (d) List the benefits of Zookeeper.
 - (e) Differentiate between Quantitative and Qualitative analysis.
 - (f) Write about Data domain for pattern recognition.
 - (g) Give a brief note on Graph database.
 - (h) Write the benefits of NoSQL over DBMS.

UNIT-I

2. (a) What are the characteristics of Big Data ? Discuss the motivating factors for Big Data adoption. 8

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- (b) Outline a neat sketch and elaborate the different stages of Big Data analytics Life Cycle. 7
3. (a) What do you mean by Big Data Business intelligence ? Illustrate a Big Data success story. 8
- (b) Explore the four phases of Business Process Management discipline. 7

UNIT-II

4. (a) Discuss “Map Phase”, “Reducer Phase” and “Combiner Phase” in MapReduce. 8
- (b) What are the advantages of Hadoop ? How does HDFS ensure data Integrity in a Hadoop Cluster ? 7
5. (a) What is Data governance in Big Data ? How does Big Data governance work ? 8
- (b) Elaborate the reasons of Big Data Project failure. Discuss the Legalities involved in Big Data Project failure. 7

UNIT-III

6. Enlist the Fundamental problems in Pattern recognition. How features are extracted and reduced in Pattern recognition ? 15
7. Discuss the important approaches of Pattern recognition. Explain the strategies for identifying patterns using nearest neighbour classifiers. Illustrate with an example. 15

UNIT-IV

8. Explain the misconceptions of NoSQL. Discuss key-value storage types and column-oriented storage type with examples and its advantage. 15
9. What is meant by Schema less models ? How data management is done for big data using NoSQL ? Write a detailed note on CAP theorem. 15

