

Roll No.

Total Pages : 03

MCA/M-24

24527

BIG DATA AND PATTERN RECOGNITION
MCA-20-41

Time : Three Hours]

[Maximum Marks : 75

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

(Compulsory Question)

1. (a) Write about important V's in big data important.
- (b) List the type of industries well suited for big data projects.
- (c) Write a short note on zookeeper.
- (d) Explore the common reasons for failure of big data projects.
- (e) What do you mean by quantitative and qualitative analysis ?
- (f) Write a note on data domain in pattern recognition.
- (g) Write a note on NoSQL storage types.
- (h) Draw comparison between NoSQL and RDBMS.

15

Unit I

2. How do you identify different types of data based on characteristics in big data environment ? Write the role of ICT as motivating driver of big data adoption. **15**
3. Outline and explain big data analytics lifecycle. Which is better big data or business intelligence ? Comment. **15**

Unit II

4. (a) Highlight the historic evolution of data governance. Discuss big data framework for data governance.
(b) Differentiate between Hive and HBase. Explain the architecture of HBase. **8+7=15**
5. (a) Discuss stepwise approach for developing big data applications.
(b) Elaborate big data failure standards and legalities. **8+7=15**

Unit III

6. What pattern recognition system does ? Elaborate the fundamental problems in pattern recognition. Discuss feature extraction and data reduction strategies. **15**
7. What are the different approaches of pattern recognition ? Discuss nearest neighbour classifier for pattern recognition. List the challenges associated with this classifier. **15**

Unit IV

8. What are the characteristics of NoSQL ? List NoSQL products. How do you manage big data in NoSQL environment ? Explore tabular stores. **15**
9. (a) Write a detailed note on key-value store and graph databases.
(b) What are the misconceptions for NoSQL ? Explain. **8+7=15**