Roll No. ☐☐☐☐☐☐☐☐☐☐☐☐☐   Total No. of Pages : 02

Total No. of Questions : 18

B.Tech.(CSE) (2011 Onwards E-III)   (Sem.–7,8)

BIG DATA

Subject Code : BTCS-914

M.Code : 71906

Time : 3 Hrs.   Max. Marks : 60

INSTRUCTION TO CANDIDATES :
1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION-A

Explain the following in brief :

1. List two applications of Big Data.

2. What is XML?

3. What are the challenges of Big Data?

4. What are the limitations of conventional systems?

5. What is GPFS?

6. What is supervised machine learning?

7. What is HBASE?

8. What is PIG?

9. What is RDF?

10. How does Reduce function work?

SECTION-B

11. What is Hadoop Ecosystem? Discuss various components of Hadoop Ecosystem.

12. Explain following in brief with respect to MongoDB :

   a. Collections and documents

   b. Indexing and retrieval

13. How are Bl tools used to create big data applications? Explain with examples.

14. Discuss role of Data node and Name node in HDFS.

15. Explain :

   a. Clustering

   b. Classification

SECTION-C

16. Explain working of following phases of Map Reduce with one common example :

   a. Map Phase

   b. Combiner Phase

   c. Shuffle and Sort Phase

   d. Reducer Phase

17. What are the benefits of Big Data? Discuss challenges under Big Data. How Big Data Analytics can be useful in the development of smart cities? (Discuss one application)

18. What is NoSQL database? List the differences between NoSQL and relational databases. Explain in brief various types of NoSQL databases in practice.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.