BT-8/M-24: 48404-SE
PE-CS-AIDS- 426A Next Generation Databases

Time: 3 hours]   **[Max. Marks: 75**

Note: Attempt five questions in all,selecting at least one question one question from each unit.

UNIT-I

1.What is bigdata?Explain various V's of bigdata.Also explain third database revolution in detail. **15**

2.What is hadoop?Explain architecture of hadoop with suitable diagram.   **15**

UNIT-II

3. What is column family?Explain archritecture of column database with suitable diagram in detail.**15**

4.write short note on following: **15**

i)Graph databases

ii)Document databases

iii)Sharding

UNIT-III

5.What is well formed XML document?Explain various XML tools.Also explain in detail about XML databases..   .   **15**

6. What is JSON document database?Discuss the functions to query JSON document supported by oracle.   **15**

UNIT-IV

7.What is MongoDB ?Illustrate the replication and sharding mechanism in MongoDB .   **15**

8. Explain briefly the mechanism used by following NoSQL APIs to perfrom insertion,modification and retrieval of data. **15**

BT–8/M-24   **48404**

NEXT GENERATION DATABASES

Paper–PE–CS–AIDS–426A

Time Allowed : 3 Hours]   [Maximum Marks : 75

Note : Attempt **five** questions in all, selecting at least **one** question from each Unit. All questions carry equal marks.

UNIT–I

1. Define Big data. Explain how Big data is different from traditional data? Also explain various V's of Big data.

          15

2. Define the Database. Explain three Database revolutions in detail.   15

UNIT–II

3. (a) Explain graph Databases in detail.   7½

   (b) Explain column Databases in detail.   7½

4. What are document Databases ? Explain JSON document databases in detail.   15

UNIT–III

5. Define XML and its various tools. Describe some advantages of XML Databases. Also explain XML Database applications.   15

6. (a) Explain some features of MongoDB. 5

(b) Explain how to perform various queries in MongoDB ? Also explain datatypes in MongoDB. 10

UNIT–IV

7. Define HBase. What are main components of HBase ? What do you understand by CAP theorm? Which feature of CAP theorm does HBase follows? 15

8. Write short notes on following : 15

(a) Distributed databases v/s non relational distributed databases.

(b) NoSQL APIs.