

## Model Questions

SKR/KW/24/2592/2614

**Faculty of Science & Technology**  
**Seventh Semester B.Tech. (Computer Science & Engineering /IT) (CBCS) Examination**  
**BIG DATA ANALYTICS**  
**PROG. ELE - V**

Time : Three Hours]

[Maximum Marks : 70

### INSTRUCTIONS TO CANDIDATES

- (1) All questions carry marks as indicated.
  - (2) Solve Question No. **1 OR** Question No. **2**
  - (3) Solve Question No. **3 OR** Question No. **4**
  - (4) Solve Question No. **5 OR** Question No. **6**
  - (5) Solve Question No. **7 OR** Question No. **8**
  - (6) Solve Question No. **9 OR** Question No. **10**
  - (7) Due credit will be given to neatness and adequate dimensions.
  - (8) Assume suitable data wherever necessary.
1. (a) Compare and Contrast Data Environment & Big Data Environment. 7  
 (b) What are the characteristics of Big Data ? Also explain need of Big Data. 7
- OR**
2. (a) Write short notes on :
    - (i) Unstructured data
    - (ii) Semi structured data
    - (iii) Structured data
    - (iv) Sources of data 12
  - (b) Define Big Data. 2
  3. (a) Explain in detail Big Data Analytics Tools. 10  
 (b) What do you mean by Association Rule ? 4
- OR**
4. (a) Explain any two classification techniques. 8  
 (b) What do you mean by Analytical operations ? 6



**Model Questions**

PRS/KS/24/2882/2904

Faculty of Science &amp; Technology

Seventh Semester B.Tech. Computer Science &amp; Engineering (IT) (C.B.C.S.) Examination

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- (4) Solve Question No. 5 **OR** Question No. 6.
- (5) Solve Question No. 7 **OR** Question No. 8.
- (6) Solve Question No. 9 **OR** Question No. 10.
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1. (a) What is Big Data, and how does it differ from traditional data ? 7
- (b) Explain the challenges of handling unstructured data in Big Data analytics. 7

**OR**

2. (a) Explain how image recognition and computer vision technologies work in processing unstructured image data. 7
- (b) List and explain the five main characteristics of Big Data. 7
3. (a) How do privacy and compliance issues pose challenges to Big Data analytics ? 7
- (b) Why do organizations need Big Data analytics to gain a competitive edge ? 7

**OR**

4. (a) Explain the concept of clustering in data analysis. What are its applications ? 7
- (b) Provide an example of a real-world application of classification in analytics. 7
5. (a) How does Hadoop 3.0 handle resource allocation and management in a multi-tenant environment ? 7
- (b) Discuss the role and significance of Yet Another Resource Negotiator (YARN) in Hadoop 3.0. 7

**OR**

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(Contd.)

**Model Questions**

6. (a) How does Apache Oozie help in orchestrating and managing Hadoop workflows ? 7
  - (b) Discuss the role of Apache Storm in real-time stream processing within Hadoop ecosystems. 7
  7. (a) Describe the primary phases of data processing in a MapReduce job. 7
  - (b) How does the Resource Manager allocate resources and manage jobs in YARN cluster ? 7
- OR**
8. (a) What is YARN (Yet Another Resource Negotiator), and why was it introduced in Hadoop 2.0 ? 7
  - (b) What are the key advantages of using MapReduce for processing large datasets ? 7
  9. (a) Explain the concept of tabular stores in NoSQL databases. 7
  - (b) Discuss the role of JSON and BSON in document-oriented databases. 7
- OR**
10. (a) Explain the concept of schema-less models in NoSQL databases. 7
  - (b) How does Hive sharding enhance data availability and performance in distributed systems ? 7

**Model Questions**

B.Tech. (Computer Science & Engineering / Information Technology) Seventh Semester (C.B.C.S.)  
**Program Elective-V : Big Data Analytics**

P. Pages : 2

Time : Three Hours

**PSM/KW/23/2882/2904**

Max. Marks : 70

- Notes :
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  4. Solve Question 5 OR Questions No. 6.
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  7. Due credit will be given to neatness and adequate dimensions.
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1. a) Explain types of digital data. 7  
 b) What are Challenges of Big Data? Explain. 7  

**OR**
2. a) With neat & clean diagram explain Big Data Analysis Life Cycle. 7  
 b) What are different Sources of Big Data. 7
3. a) Explain Characteristics & need of Big Data Analytics. 7  
 b) Explain in detail classification of Analytics. 7  

**OR**
4. a) What is Business Intelligence? Explain in detail. 8  
 b) Explain different analytical operations. 6
5. a) What are essentials of Hadoop Ecosystems? 7  
 b) Explain with suitable diagram architecture of Hadoop 3.0. 7  

**OR**
6. a) Explain key advantage and Versions of Hadoop. 10  
 b) Write short notes on. 4
  - i) HIVE.
  - ii) PIG.
7. a) Enlist & explain common Serialization Formats. 8

**Model Questions**

b) Explain YARN framework with suitable diagram. 6

**OR**

8. a) How to process data with MapReduce? 8

b) Write short notes related to YARN. 6

i) Resource manager.

ii) Node manager.

9. a) What are the benefits of using a schemeless database? 8

b) How to Handle Offline Data Storage with Flutter Hive? 6

**OR**

10. Explain in detail NOSQL database architecture. 14

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