

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA – SEMESTER – V – EXAMINATION – SUMMER - 2018

Subject Code: 3650004

Date: 07 /05/ 2018

Subject Name: Big Data Analytics

Time: 10:30 AM 1:00 PM

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) 1. What is big data analytics? Explain characteristics of Big data. **04**
2. Explain Types of Big Data. **03**
(b) 1. Explain Hadoop Architecture and its Components with proper diagram. **07**
- Q.2** (a) 1. What are the NoSQL Business drivers? **04**
2. Discuss Characteristics of NoSQL databases. **03**
(b) 1. Write a short note on Hadoop Ecosystem. **07**
OR
(b) 1. Explain the types of NoSQL Data Stores in detail. **07**
- Q.3** (a) 1. Explain Recommendation Based on User Ratings using appropriate example. **04**
2. What is NN Search? Discuss Applications of NN Search. **03**
(b) 1. Explain working of following phases of Map Reduce with one common example. **07**
(i) Map Phase
(ii) Combiner Phase
(iii) Shuffle and Sort Phase
(iv) Reducer Phase
OR
- Q.3** (a) 1. Write a Short note on Sampling in Data Streams. **04**
2. What are the Applications of Data Stream? **03**
(b) 1. Explain Cloaking technique of Spamming in detail. **07**
- Q.4** (a) 1. Explain Market – Basket Model. **04**
2. Discuss two Clustering strategies. **03**
(b) 1. Explain the structure of Web in detail. **07**
OR
- Q.4** (a) 1. Explain the following terms (any two) : **04**
(i) Link Spam
(ii) Topic Sensitive Page Rank
(iii) Hub & Authority Pages
2. What is Clustering? Explain with example. **03**
(b) 1. Write a short note on: Frequent Item - set Mining Applications. **07**
- Q.5** (a) 1. Discuss the applications of Clustering. **04**
2. Differentiate Collaborative – filtering & Content – based systems. **03**
(b) 1. Discuss Characteristics of a Social Network as a Graph. **07**
OR
- Q.5** (a) 1. Explain Collaborative - Filtering Recommendation System. **04**
2. Differentiate between Lexical Similarity and Semantic Similarity of Documents. **03**
(b) 1. Write a short note on types of Social Networks. **07**