

Roll No.

Total No. of Pages :02

Total No. of Questions : 09

**B.Tech. (Artificial Intelligence (AI) and Data Science) (Sem.-6)**

**BIG DATA ANALYTICS**

**Subject Code :BTDS 603-20**

**M.Code :93960**

**Date of Examination : 26-11-2025**

**Time : 3 Hrs.**

**Max. Marks : 60**

**INSTRUCTIONS 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**

**1. Answer the following :**

- a. What is big data and why is it important?
- b. Differentiate between Hadoop and traditional databases.
- c. Name two tools used for data visualization.
- d. Differentiate between structured and unstructured data.
- e. What is the significance of dashboards in data analytics?
- f. What are association rules in data mining?
- g. What are the key deliverables in the deployment phase?
- h. What are decision trees and how are they used in data analytics?
- i. Differentiate between supervised and unsupervised learning.
- j. What is web mining and how is it useful?

## SECTION - B

2. Describe the importance of big data analytics in industry verticals.
3. Explain the importance of data pre-processing and its common techniques.
4. How does business understanding influence the analytics lifecycle?
5. Explain the k-means clustering algorithm with steps.
6. Explain the process of creating final deliverables in an analytics project.

## SECTION - C

7. Explain Hadoop's storage (HDFS) and processing (MapReduce) frameworks in detail, including their advantages and limitations.
8. Explain Naïve Bayes Classification algorithm with the help of an example.
9. How can an organization successfully implement and operationalize an analytics project?

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