



Maharashtra Education Society
Institute of Management & Career Courses, Pune (Autonomous)
End Term Question Paper

AY 2025-26

Semester: III



Course Code: BA01

Course Name: Big Data Analytics

Total Marks: 50

Time:

Date:

Instructions:

- i. Q. 1 and 2 are compulsory.
- ii. Solve any Two from Q. 3.

Question No. 1: Differentiate between ETL and ELT with examples. [10 Marks]

Question No. 2: Describe the evolution and types of NoSQL databases. [10 Marks]

Question No. 3: Solve any Two of below (15 marks each) [30 Marks]

- a) Big Data in Entertainment (Netflix/Amazon Prime) OTT platforms use Big Data for personalized recommendations.
 - Discuss how SQL & Spark SQL help in analyzing structured viewing data.
 - Explain role of NoSQL databases for storing watch history.
 - Mention challenges in scaling recommendation systems.
- b) A manufacturing firm wants to reduce machine downtime using predictive analytics.
 - Identify types of data (sensor logs, machine maintenance records, images).
 - Discuss how cloud-based deep learning can support image-based defect detection.
- c) A logistics company wants to implement real-time vehicle tracking using Google Pub/Sub + Data Flow.
 - Explain the workflow of Pub/Sub and Data Flow.
 - State two business advantages of real-time analytics in logistics.