

**PARUL UNIVERSITY**  
**FACULTY OF ENGINEERING & TECHNOLOGY**  
**M.Tech. Winter 2019 - 20 Examination**

**Semester: 3**  
**Subject Code: 203200201**  
**Subject Name: Business Analytics**

**Date: 28/11/2019**  
**Time: 10:30 AM TO 1:00 PM**  
**Total Marks: 60**

---

**Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

**Q.1 A) Define following terms:**

- 1) Descriptive analytics    2) Predictive analytics    3) Prescriptive analytics    (05)  
4) Decision analysis        5) Strategic decision

**B) What is Data Mining? Explain the process of Data Exploration and Reduction in data mining. (05)**

**C) How important is analytics in relation to success of a business? Explain the scope of business analytics. (05)**

**Q.2 Answer the following questions. (Attempt any three) (Each five mark) (15)**

- A) Explain the Utility Theory in Decision analysis.**  
**B) Define Business analytics. Explain business analytics process in detail.**  
**C) Explain the Regression-Based Seasonal Forecasting Models.**  
**D) Explain the Decision Analysis With Probabilities.**

**Q.3 A) What is the role of classification techniques in analytic? Explain the K-Nearest Neighbour (KNN) with suitable example. (07)**

**B) What is Predictive Analytics? Explain the techniques for predictive analytics with example. (08)**

**OR**

**B) Explain the perspective modeling with example. (08)**

**Q.4 A) What is forecasting? Explain the Qualitative and Judgmental Forecasting techniques with examples. (07)**

**OR**

**A) What is Monte Carlo Simulation? Explain the Monte Carlo Simulation using Analytic Solver Problem. (07)**

**B) What is decision Tree? Explain the working of decision tree classification with example. (08)**