

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
M.Tech. Winter 2018 - 19 Examination

Semester: 1
Subject Code: 203202133
Subject Name: Program Elective-2 – Data Science

Date: 13/12/2018
Time: 10:30 am to 01:00pm
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) List out various data sources used for data science application. (05)
B) Differentiate numerical and categorical Data. (05)
C) Differentiate between supervised and unsupervised learning. (05)
- Q.2** Answer the following questions. (Attempt any three) (Each five mark) (15)
A) What is Data Science? How it is different from business intelligence?
B) List out various applications of Data Science.
C) Define following measures used for dispersion:
i) Standard deviation, ii) Variance
D) Explain Visual Encoding in brief.
- Q.3** A) What are the benefits of using APIs for data collection? Explain any three API used for data collection in brief. (07)
B) Explain Naive Bayes algorithm with example. (08)
- OR**
- B) What is SVM? Explain how it works. (08)
- Q.4** A) What is the purpose of Regression analysis? Explain Linear regression in detail. (07)
- OR**
- A) Write short note on Bokeh library of Python. (07)
B) What is data visualization? Explain any two data visualization technique. (08)