

BACHELOR OF TECHNOLOGY (C.B.C.S.) (2020 COURSE)
B.Tech.Sem - IV E&C :SUMMER- 2022
SUBJECT : ITC-II: ESSENTIALS OF DATA SCIENCE

Day : Friday

Date : 24-06-2022

S-24605-2022

Time : 10:00 AM-01:00 PM

Max. Marks : 60

N.B.:

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the right indicate **FULL** marks.
 - 3) Draw neat labelled diagrams **WHEREVER** necessary.
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Q.1 What are the components of Data Science? Explain role and responsibilities of Data Scientist? Explain each. (10)

OR

Q.1 Which are the important steps of Data Cleaning? Explain each steps and give any real time example. (10)

Q.2 What are scalars, vectors, matrices and tensors? Explain each with example. (10)

OR

Q.2 How is missing data handled in statistics? Explain with any real time dataset example. (10)

Q.3 What is Optimization in Machine Learning? (10)

OR

Q.3 How do you use the Convex Optimization approach to Minimize Regret? (10)

Q.4 What is classification algorithm? Enlist all classification algorithm and explain any one with its application. (10)

OR

Q.4 What do you mean by the Logistic Regression? Explain types of Logistic Regression? (10)

Q.5 Explain numpy, Pandas, Matplotlib, Seaborn with its application and give any one example of each. (10)

OR

Q.5 What is matplotlib? Which types of plot we visualize by using matplotlib? (10)

Q.6 What is the role of Machine learning in Data Science? Explain with real time example? (10)

OR

Q.6 What are the unsupervised learning algorithm? Explain any one with real time example. (10)

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