

Total No. of Questions : 4]

SEAT No. :

P-5143

[Total No. of Pages : 2

[6187]-553

T.E. (Computer Engineering) (Insem.)
DATA SCIENCE AND VISUALIZATION (Honors)
(2019 Pattern) (Semester - I) (310501)

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates :

- 1) *Answer Q.1 or Q.2, Q.3 or Q.4.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right indicate full marks.*
- 4) *Assume suitable data, if necessary.*

Q1) a) Elaborate different stages of data science process in detail. **[6]**

b) What is supervised Machine Learning? Elaborate with suitable example and enlist its applications. **[5]**

c) Define the terms : **[4]**

- i) Data science
- ii) Big Data

OR

Q2) a) What is Unsupervised Machine Learning? Elaborate with suitable example. **[6]**

b) How is Machine Learning related to Data Science? Explain in detail. **[5]**

c) Define the terms:

- i) Correlation
- ii) Variance **[4]**

P.T.O.

Q3) a) Calculate the mean, median, mode of the following data and comment on Skewness of data.

17, 16, 25, 23, 22, 23, 28, 25, 25 [6]

b) Explain normal distribution and its characteristics. [5]

c) Write a note on conditional Probability. [4]

OR

Q4) a) Define Central Tendencies (Mean, Median and Mode) with examples. [6]

b) What is Bayes Theorem? How it is used to solve classification problem in machine learning? Illustrate with suitable example. [5]

c) Define the terms related to data science. [4]

i) Co-Variance

ii) Standard Deviation

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