

Total No. of Questions : 5]

SEAT No. :

P-6393

[Total No. of Pages : 2

**[6155]-54**  
**T.Y. B.Sc.**  
**COMPUTER SCIENCE**  
**CS-354 : Foundations of Data Science**  
**(Rev.2019) (CBCS) (Semester - V)**

*Time : 2 Hours]*

*[Max. Marks : 35*

*Instructions to the candidates:*

- 1) *All questions are compulsory.*
- 2) *Figures to the right indicate full marks.*

**Q1) Attempt any eight of the following :**

**[8 × 1 = 8]**

- a) What do you mean by Primary Data?
- b) What do you mean by Data Quality?
- c) Define outlier.
- d) Define Interquartile range.
- e) What do you mean by missing values?
- f) What are uses of zip files?
- g) What do you mean by XML Files data format?
- h) Define data discretization.
- i) What is tag cloud?
- j) What is visual encoding?

**Q2) Attempt any four of the following :**

**[4 × 2 = 8]**

- a) Explain different applications of Data Science.
- b) Explain null and alternate hypothesis.
- c) What do you mean by Noisy data? Explain any two causes of noisy data.
- d) What do you mean by data visualization? Give example of any two data visualization libraries.
- e) Explain 3V's of data science.

**P.T.O.**

**Q3) Attempt any two of the following :**

**[2 × 4 = 8]**

- a) Explain data cube aggregation method in context of data reduction.
- b) What is mean, mode, median and range for the following list of values:  
24, 29, 24, 25, 24, 27, 25, 32, 24
- c) Explain any four data visualization tools.

**Q4) Attempt any two of the following :**

**[2 × 4 = 8]**

- a) Differentiate between structured and unstructured data.
- b) What do you mean by Data attributes? Explain types of attributes with example.
- c) How do you visualize geospatial data? Explain in detail.

**Q5) Attempt any one of the following :**

**[1 × 3 = 3]**

- a) What do you mean by Data transformation? Explain strategies of data transformation.
- b) What are the different methods for measuring the data dispersion?

