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B. Tech. 6th Semester (CSE) (Elective - III) Examination – May, 2023

DATA SCIENCE

Paper : PEC-CSE-320-G

Time : Three Hours] [Maximum Marks : 75

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt any *five* questions in all, selecting at least *one* question from each Unit. Question No. 1 is *compulsory*. All questions carry equal marks.

$6 \times 2.5 = 15$

1. Explain the following :

   (a) Traits or Characteristics of Big Data.

   (b) EDA.

   (c) Data Types in NumPy

   (d) Data Cleansing

   (e) Data science myths

   (f) Clustering

P. T. O.

UNIT – I

2. (a) Define Data Science and discuss data science components in details. 8

   (b) Illustrate data reporting Vs data analysis in data science. 7

3. Discuss Data Science Process in details with diagrams and examples. 15

UNIT – II

4. (a) Briefly discuss the programming toolkits available in Python for Data Science with suitable examples. 10

   (b) What do you understand by web scrapping ? Discuss web scrapping mechanism to collect data using python library. 5

5. How *Matplotlib* is useful in data visualization in Python ? Discuss Bar, Line and Scattered plotting using *Matplotlib* with suitable examples. 15

UNIT – III

6. What is Methodology in Data Science ? Discuss from Problem to Approach and from Requirements to Collection stage of methodology helpful for data scientists. 15

7. Discuss the significance of Modeling, Evaluation, Deployments and feedback stages of the data science Projects. 15

UNIT – IV

8. How Data Science tools are useful in election campaign and predicting result in real world ? Discuss in details. 15

9. What do you understand by Business Analytics ? Discuss its usage in business goals achievements. 15

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