WEST BENGAL STATE UNIVERSITY

B.A./B.Sc. Honours 5th Semester Examination, 2021-22

CMAADSE01T-COMPUTER APPLICATION (DSE1/2)

Time Allotted: 2 Hours   Full Marks: 40

The figures in the margin indicate full marks.
Candidates should answer in their own words and adhere to the word limit as practicable.
All symbols are of usual significance.

Answer Question No. 1 and any *four* from the rest

1.   Answer any *four* questions from the following: 2×4 = 8

   (a) What is data science?

   (b) What is the function of GitHub?

   (c) Explain scatter plot.

   (d) What is data collection in exploratory data analysis?

   (e) What is R studio?

   (f) What is outliers?

   (g) What is the need of data cleaning?

2. (a) What is version control systems?   2+4+2

   (b) Explain the benefits of version control system.

   (c) What is the difference between supervised and unsupervised learning?

3. (a) Mean, median and mode— Which measure of central tendency to use and when?   4+2+2
       Explain properly with example.

   (b) What is the advantages of R programming language?

   (c) You are given data set consisting of variables with more than 30 percent of
       missing values. How will you deal with them?

4. (a) Explain Histogram with example.   4+4

   (b) Why reproducibility matters in data science?

5. Short note: (any *two*)   4×2 = 8

   (a) Box plot

   (b) Markdown

   (c) Standard deviation

   (d) Data pre-processing

6. (a) Explain differentiate between univariate, bivariate, multivariate data in data science.   4+4

   (b) Explain the role of machine learning in data science.

7. (a) What are the goals of data science?   4+4

   (b) What is the significance of R language in data science?

8. (a) What do you mean by high-dimensional data?   2+6

   (b) Describe the essential exploratory techniques for summarizing data.

   N.B. : *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

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