

Saraswat Vidyalaya's
Sridora Caculo College of Commerce & Management Studies
B.C.A Semester VI Repeat Examination, November 2022

CAD -110 DATA SCIENCE CONCEPTS

Duration: 2 Hours

Total Marks: 60

Total No. of Pages: 2

Instructions: 1) All questions are *compulsory*.

2) Figures to the *right* indicate *full marks*.

3) Draw diagrams wherever necessary.

4) Use of calculator is *permitted*.

Q1. A) Fill in the blank.

(5 x 1 = 05)

- I. In data science data obtained in the _____ form is called raw data.
- II. A process where multiple learning models are used to predict an outcome which enhances accuracy is called _____.
- III. The main purpose of data science is _____.
- IV. One of the languages used for data science programming is _____.
- V. The collection, transformation, and organization of data in order to draw conclusions, make predictions, and drive informed decision-making _____.

Q1. B) Answer the following

(5 x 1 = 05)

- I. Define unsupervised Learning.
- II. What is Data Science?
- III. How will you distinguish between traditional and big data?
- IV. Define Data Wrangling.
- V. List any four careers in data science.

Q2. Answer the following.

- A. State examples of : (i) Qualitative data (ii) Quantitative data (02)
- B. Distinguish between inferential and descriptive statistics. (03)
- C. State and explain in brief feature selection techniques. (05)

Q3. Answer the following.

- A. Give an example of Traditional Data. (02)
- B. Differentiate between classification and clustering. (03)
- C. How can data science be used in medicine? (05)

Q4. Answer the following.

- A. Why is feature selection important? (02)
- B. Explain in detail the data cleaning cycle. (03)
- C. Write a note on uses of data science in education sector. (05)

Q5. Answer the following.

- A. What are ensembles? (02)
- B. Write a short note on Boosting. (03)
- C. Write a note on Decision Trees. (05)

Q6. Answer the following.

- A. Why is KNN the most simplest machine learning algorithm? (02)
- B. Write a short note on Linear regression. (03)
- C. Giving an example, explain bagging. (05)