

Roll No.

Total Pages : 2

312203

May 2023
BCA (DS) II- SEMESTER
Introduction to Data Science (BCA-DS-113)

Max. Marks:75

Time: 3 Hours

Instructions:

1. It is compulsory to answer all the questions (1.5 marks each) of Part -A in short.
2. Answer any four questions from Part -B in detail.
3. Different sub-parts of a question are to be attempted adjacent to each other.

PART -A

- Q1 (a) What is data science and its benefits? (1.5)
- (b) Why data preprocessing is important? (1.5)
- (c) Why is data warehouse non-volatile? (1.5)
- (d) Differentiate between supervised and unsupervised learning. (1.5)
- (e) How do machines learn? (1.5)
- (f) Differentiate between Recall and Precision. (1.5)
- (g) What is the need of cloud computing? (1.5)
- (h) What is required to do weather forecasting? (1.5)
- (i) Briefly discuss data science tools used now a days. (1.5)
- (j) What is meant by 'trend'? (1.5)

PART -B

- Q2 (a) Explain role and stages in data science? Discuss its goal. (10)
- (b) What are input and output in R-Language? (5)
- Q3 (a) What is machine learning and Artificial Intelligence? What is its role in data Science? (10)
- (b) Discuss real life applications of AI and ML. (5)
- Q4 What are the tips to recruit Data Science people? Discuss career opportunities in the field of Data Science. (15)

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- Q5 (a) What is the problems face when handling large data? (5)
(b) How to maintain data privacy and security? (10)
- Q6 (a) What is big data? Discuss the main characteristics of big data. (10)
(b) Differentiate between Data Mining and Data Science. (5)
- Q7 How data visualization is done? Discuss basic principle, ideas and tools to visualize data. Illustrate with example. (15)

PART-B