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MCS–E7

MCA IVth Semester Examination Dec., 2023

DATA SCIENCE FOR ENGINEERS

Time : 2 Hours]　　　　　　[**Max. Marks :** 70

Note **:–** This paper is of Seventy (70) marks divided into two (02) Sections 'A' and 'B'. Attempt the questions contained in these Sections according to the detailed instructions given there in. ***Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.***

Section–A

(Long Answer Type Questions)　　2×19=38

Note **:–** Section 'A' contains Five (05) Long-answer type questions of Nineteen (19) marks each. Learners are required to answer any *two* (02) questions only.

1.   Describe life cycle of Data Science with neat diagram.

2.   Explain Traditional *Vs*. Big data business approach with its drawbacks.

3.   Evaluate the various formats of data and illustrate with a real time examples.

4.   What is R programming ? Discuss the features of R programming language.

5.   List and illustrate the Fundamental Libraries available for data science applications.

Section–B

(Short Answer Type Questions)   4×8=32

Note :– Section 'B' contains Eight (08) Short-answer type questions of Eight (08) marks each. Learners are required to answer any *four* (04) questions only.

1.   Describe explarotory data analysis and its role in data science.

2.   Discuss the concept of classification using K-NN algorithm.

3.   Differentiate between regression and classification with example.

K–1009   (2)

4. Explain various measuring factors available in machine learning.

5. Discuss the topology of Data Science problem in detail.

6. What is hypothesis testing in Data Science ? Explain discuss the types of hypothesis test.

7. What do you understand by optimization is data science ? Explain with the help of an example.

8. Differentiate between Data Science and machine learning.

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K–1009 (3)