Total Pages : 3   **Roll No. ....**

MCS-E7

DATA SCIENCE FOR ENGINEERS

(MCA)

Examination, June 2025

Time : 2:00 Hrs.   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 therein. *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. Explain the primary steps in a data science workflow.

2. Explain the features of R programming language.

3. What is a vector and how is it used in data science ?

4. What is a classification problem and how is it different from regression ?

5. What is Logistic Regression and how does it differ from Linear Regression ?

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. How do you set up your working directory in R ?

2. How is matrix multiplication different from element wise multiplication ?

3. Explain exploratory data analysis and its role in data science.

4. What is the importance of statistics in data science ?

5. Explain the various measuring factors available in machine learning.

6. What is optimization and why it is important in data science ?

7. Explain the types of Data Science Techniques.

8. Explain the concept of Classification using k-NN algorithm.

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