P-888

Total Pages: 3 Roll No.

MCS-E7

Data Science for Engineers

Master of Computer Application (MCA)
4th Semester Examination, 2023 (June)

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 therein. Candidates should limit their answer to the questions on the given answer sheet. No additional (B) answer sheet will be issued.

SECTION-A (Long Answer Type Questions)

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.

 $(2 \times 19 = 38)$

1. Briefly explain the role of Data Science in various fields.

- 2. What is Data Science? Explain Data Science Process.
- **3.** What is R programming? Discuss the features of R programming language.
- **4.** What is a vector in R? List the difference between vector and list.
- **5.** Explain control structures in R with example.

SECTION-B

(Short Answer Type Questions)

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. (4×8=32)

- 1. Compare and Contrast Linear Regression vs Logistic Regression.
- **2.** Which are the different matrices to select best model for Classification Problems?
- **3.** Explain Simple Linear Regression model with example.
- **4.** Why do we need regularization in logistic regression?

- **5.** Compare supervised and unsupervised machine learning techniques.
- **6.** What is data cleansing? Why it is important? Explain with suitable example.
- 7. Explain about matrices in R.
- **8.** What are the characteristics of Big Data?