MB–404(BA3)

M. B. A. (FOURTH SEMESTER)
MID SEMESTER
EXAMINATION, May, 2023

DATA SCIENCE WITH PYTHON

Time : 1½ Hours

Maximum Marks : 50

Note : (i) This question paper contains two Sections—Section A and Section B.

(ii) Both Sections are compulsory.

(iii) Answer any *two* sub-questions among (a), (b) & (c) in each main question of Section A. Each sub-question carries 10 marks.

(iv) Section B consisting of Case Study is compulsory. Section B is of 20 Marks.

Section—A

1. (a) Describe data science and its role in the current business scenario.   (CO1)

(b) Illustrate different steps of the data analysis process in detail.   (CO2)

(c) Classify various challenges of data analytics and how to fix them in detail.

(CO3)

2. (a) Evaluate descriptive, diagnostic, predictive, and prescriptive analytics on the basis of their objective.   (CO4)

(b) Discuss Hypothesis testing, also discuss different types of errors.   (CO1)

(c) Discuss the roles and responsibilities of a data scientist.   (CO1)

3. (a) Illustrate the importance of data visualization and its techniques in analytics.   (CO2)

(b) Evaluate various data types and different plots used for visualization.   (CO4)

(c) Differentiate between Statistical and Non-Statistical Analysis.   (CO3)

Section—B

4. **Case Study :**   (20 Marks) (CO5)

Caselet/ Numerial

In an FMCG company sales have been recorded for the last financial year, now being as a data scientist you have to depict reports using data visualization techniques, for the following points :

(i) Sales percentage/proportion of products sold

(ii) Outliers in a sales dataset of products

(iii) To depict the relationship between two products and the trends between them. Now which plot you will use and why to create reports ?