



**SECTION - B (35 Marks)**Answer **ALL** questions**ALL** questions carry **EQUAL** Marks (5 × 7 = 35)

Question No.	Question	K Level	CO
11.a.	What are the ethical and privacy considerations associated with Data Science?	K2	CO1
	(OR)		
11.b.	Explain the key differences between Python and R as programming languages for Data Science , highlighting their strength and common use cases.		
12.a.	Examine the functions in R.	K4	CO2
	(OR)		
12.b.	Explain the significance of understanding data preprocessing process.		
13.a.	Interpret on scatter plot, strip chart, stacked bar chart, and grouped bar chart using R.	K2	CO3
	(OR)		
13.b.	Illustrate how Violin plot is used to is used to display multiple nodes?		
14.a.	Assess the notion of factor analysis for an application using python.	K5	CO4
	(OR)		
14.b.	Explain word cloud and its uses in text analytics.		
15.a.	Compare and contrast Deep learning and Machine learning techniques.	K6	CO5
	(OR)		
15.b.	Elaborate the different applications of analytics in the field of agriculture.		

**SECTION -C (30 Marks)**Answer **ANY THREE** questions**ALL** questions carry **EQUAL** Marks (3 × 10 = 30)

Question No.	Question	K Level	CO
16	Explain the different types of libraries and its uses in Python.	K5	CO1
17	How important is data visualization techniques and explain its role in decision making in different domains?	K5	CO2
18	Analyze how to perform data visualization using Ggplots library in R? Justify any three Ggplot libraries with examples and also state its importance.	K4	CO3
19	Analyze the relationship between variables with an example.	K4	CO4
20	Generalize building blocks and role of agents in reinforcement training.	K6	CO5

Z-Z-Z END