R16

Code No: 138BJ

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year II Semester Examinations, July - 2023

DATA ANALYTICS

(Common to CSE, IT)

Time: 3 Hours **Max. Marks: 75**

Note: i) Question paper consists of Part A, Part B.

ii) Part A is compulsory, which carries 25 marks. In Part A, Answer all questions.

iii) In Part B, Answer any one question from each unit. Each question carries 10 marks and may have a, b as sub questions.

PART – A

(25 Marks)

1.a)	List the primary sources of data.	[2]
b)	What are the three levels of specifications in designing data architecture?	[3]
c)	What is the purpose of data analytics?	[2]
d)	Give the significance of column databases.	[3]
e)	What is sigmoidal function?	[2]
f)	What is cluster analysis?	[3]
g)	What is the need of Kass's algorithm?	[2]
h)	How to compute gini index?	[3]
i)	What is the role of circle segments in visualization?	[2]
j)	Why do we need data visualization?	[3]

PART – B

(50 Marks)

2.a)	Make a comparison of randomized block design and Latin square design.	
b)	Discuss the importance and disadvantages of syndicate services.	[5+5]
	OR	
3.	Explain step-by-step procedure of exporting job process to cloud Amazon S3 with suitable example.	[10]
4.a)	Compare Scala with Java for big data analytics.	
b)	Describe steps involved in descriptive analytics.	[5+5]
	OR	
5.	What is data modeling? What is its importance in business? Explain its application with suitable examples.	[10]
6.	Explain various types of regression models used in data analytics with relevant data.	[10]
	OR	
7.a)	With suitable example, demonstrate the role of confusion matrix in analytics.	
b)	Demonstrate the Hosmer-Lemeshow test.	[5+5]

8.a) Differentiate between regression and segmentation.

b) Discuss the advantages of decision trees for analysis. [5+5]

OR

9. Explain the following components of time-series data: long-term trend, seasonal variation, cyclic variation, stationary variation, irregular variation. [10]

10. Describe briefly various methods used in geometric projection visualization. [10]

OR

11. Make a comparison of dimensional stacking and tree maps for hierarchical visualization. [10]

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