



**KAKATIYA UNIVERSITY, WARANGAL - 506 009**

**B.Sc. PROGRAMME Under CBCS System**

**Scheme w.e.f. A.Y: 2020-23**

**B.Sc. DATA SCIENCE**

Year	Semester	Theory / Practical	Paper Title	Work Load (Hrs/Week)	# Credits	Marks
I	FIRST	<b>Paper - I (DSC - A)</b>	<b>Fundamentals of Information Technology</b>	<b>4</b>	<b>4</b>	<b>100</b>
		<i>Practical - 1</i>	Fundamentals of Information Technology (Lab)	3	1	25
	SECOND	<b>Paper - II (DSC - B)</b>	<b>Problem solving and Python Programming</b>	<b>4</b>	<b>4</b>	<b>100</b>
		<i>Practical - 2</i>	Problem solving and Python Programming (Lab)	3	1	25
II	THIRD	<b>SEC - 1</b>	<b>University Specified</b>	<b>2</b>	<b>2</b>	<b>50</b>
		<b>SEC - 2</b>	<b>Mini Project</b>	<b>2</b>	<b>2</b>	<b>50</b>
		<b>Paper - III (DSC - C)</b>	<b>Data Engineering with Python</b>	<b>4</b>	<b>4</b>	<b>100</b>
		<i>Practical - 3</i>	Data Engineering with Python (Lab)	3	1	25
	FOURTH	<b>SEC - 3</b>	<b>University Specified</b>	<b>2</b>	<b>2</b>	<b>50</b>
		<b>SEC - 4</b>	<b>Mini Project</b>	<b>2</b>	<b>2</b>	<b>50</b>
		<b>Paper - IV (DSC - D)</b>	<b>Machine Learning</b>	<b>4</b>	<b>4</b>	<b>100</b>
		<i>Practical - 4</i>	Machine Learning (Lab)	3	1	25
III	FIFTH	<b>Paper – V (A) (DSE - A)</b>	<b>Natural Language Processing</b>	<b>4</b>	<b>4</b>	<b>100</b>
		<b>Paper – V (B) (DSE - A)</b>	<b>No SQL Data Bases</b>	<b>4</b>	<b>4</b>	<b>100</b>
		<i>Practical – 5(A)</i>	Natural Language Processing (Lab)	3	1	25
		<i>Practical – 5(B)</i>	No SQL Data Bases (Lab)	3	1	25
		<i>Paper VI - GE</i>	<i>Data Structures and Algorithms</i>	<b>4</b>	<b>4</b>	<b>100</b>
	SIXTH	<b>Paper – VII(A) (DSE - B)</b>	<b>Big Data</b>	<b>4</b>	<b>4</b>	<b>100</b>
		<b>Paper- VII (B) (DSE - B)</b>	<b>Deep Learning</b>	<b>4</b>	<b>4</b>	<b>100</b>
		<i>Practical – 7(A)</i>	Big Data (Lab)	3	1	25
		<i>Practical – 7(B)</i>	Deep Learning (Lab)	3	1	25
		<b>Paper VIII (Project)</b>	<b>Major Project</b>	<b>4</b>	<b>4</b>	<b>100</b>

**B.Sc. (DATA SCIENCE)**  
**Theory Question Paper Pattern**  
**w.e.f: Academic Year: 2020-23**

Time: 3 hours]

[Max. Marks: 80

**Section - A**

Answer any EIGHT questions. All questions carry equal marks.  
(8Qx4m=32)

1. From Unit I
2. From Unit I
3. From Unit I
4. From Unit II
5. From Unit II
6. From Unit II
7. From Unit III
8. From Unit III
9. From Unit III
10. From Unit IV
11. From Unit IV
12. From Unit IV

**Section - B**

Answer ALL questions. All questions carry equal marks. (4Qx12m=48)

13. a) From Unit I  
(or)  
b) From Unit I
14. a) From Unit II  
(or)  
b) From Unit II
15. a) From Unit III  
(or)  
b) From Unit III
16. a) From Unit IV  
(or)  
b) From Unit IV

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