

BHARATHIAR UNIVERSITY::COIMBATORE 641 046

**B. Sc. Computer Science with Data Analytics (CBCS
PATTERN)**

(For the students admitted from the academic year 2023-2024 and onwards)

Scheme of Examination

Part	Title of the Course	Hours/ Week	Examination				Credits
			Duration in Hours	Maximum Marks			
				CIA	CEE	Total	
Semester I							
I	Language - I	4	3	25	75	100	4
II	English - I	4	3	25	75	100	4
III	Core 1: Programming in C	5	3	25	75	100	4
III	Core 2: Data structures	5	3	25	75	100	4
III	Core Lab 1: Programming Lab - C	5	3	25	75	100	4
III	Allied 1: Introduction to Linear algebra	5	3	25	75	100	4
IV	Environmental Studies*	2	3	-	50	50	2
Total		30		150	500	650	26
Semester II							
I	Language – II	4	3	25	75	100	4
II	English – II	4	3	25	25	50	2
	NaanMuthalvan - Skill Course Effective English http://kb.naanmudhalvan.in/images/c/c7/Cambridge_Course_Details.pdf	2		25	25	50	2
III	Core 3: Programming in C++	5	3	25	75	100	4
III	Core Lab 2: Programming Lab - C++	5	3	20	30	50	2
III	Core Lab 3: Internet Basics Lab	3	3	20	30	50	2
III	Allied 2: Discrete Mathematics	5	3	25	75	100	4
IV	Value Education – Human Rights*	2	3	-	50	50	2
Total		30		165	385	550	22
Semester III							
I	Language-III	4	3	25	75	100	4
II	English-III	4	3	25	75	100	4
III	Core 4 : JAVA Programming	4	3	25	75	100	4
III	Core 5: Database Management Systems	4	3	25	75	100	4
III	Core Lab 4: JAVA Programming Lab	3	3	20	30	50	2
III	Allied 3: Data Communication and Networks	5	3	25	25	50	2
III	Skill based Subject 1: Data Visualization	4	3	30	45	75	3
IV	Tamil** / Advanced Tamil* (OR) Non-major elective - I (Yoga for Human Excellence)* / Women's Rights*	2	3	-	50	50	2
Total		30		175	450	625	25
Semester IV							
I	Language-IV	4	3	25	75	100	4
II	English-IV	4	3	25	25	50	2
	NaanMuthalvan – Skill Course Office Fundamentals - Lab http://kb.naanmudhalvan.in/Bharathiar_University_(BU)	2		25	25	50	2

III	Core 6: Python Programming	4	3	25	75	100	4	
III	Core 7: Data Warehousing and Data Mining	4	3	25	75	100	3	
III	Core Lab 5: Python Programming Lab	3	3	20	30	50	2	
III	Allied 4: Deep Learning	4	3	25	25	50	2	
III	Skill based Subject 2 Lab: Capstone Project Work Phase I	3	3	25	25	50	2	
IV	Tamil**/Advanced Tamil* (OR) Non-major elective -II (General Awareness*)	2	3	-	50	100	2	
	Total	30		195	405	600	23	
Semester V								
III	Core 8: R Programming		6	3	25	75	100	4
III	Core 9: Big Data Analytics		6	3	25	75	100	4
III	Core Lab 6: R Programming Lab		6	3	30	45	75	4
III	Elective – I Business Data Analytics/ Social Network Analysis/t/Artificial NeuralNetwork and Fuzzy Systems		6	3	25	75	100	4
III	Skill based Subject 3: Capstone Project Work Phase II		6	3	30	45	75	3
	Total	30		135	315	450	19	
Semester VI								
III	Core 10: Linux and Shell Programming		6	3	25	75	100	4
III	Core 11: Project Work Lab % %		6	-	25	75	100	4
III	Core Lab 7: Linux and Shell ProgrammingLab		3	3	30	45	75	3
III	Elective – II: Web Application Security/ Software Agents/Embedded systems		5	3	25	75	100	4
III	Elective III Client Server Computing/ Open source Software/ Principles of Secure Coding		5	3	25	75	100	4
III	Skill Based Subject 4: Machine Learning		3	3	25	25	50	2
	Naan Muthalvan - Skill Course Cyber Security @ http://kb.naanmudhalvan.in/images/7/71/Cybersecurity.pdf (or) Machine Learning # http://kb.naanmudhalvan.in/images/1/19/PBL_Google.pdf (or) Android APP Development \$ http://kb.naanmudhalvan.in/images/0/08/Android_App_Dev.pdf		2		25	25	50	2
V	Extension Activities**		-	-	50	-	50	2
	Total	30		230	395	625	25	
	Grand Total			1050	2450	3500	140	

* No Continuous Internal Assessment (CIA). Only University Examinations.

** No University Examinations. Only Continuous Internal Assessment (CIA).