

JIIT NOIDA
Bachelor of Science (B. Sc.) (Honours / Honours with Research)
in
Computer Science programme
(For students of 2023-27 batch)

First Semester

S. N.	Course Code	Course	Contact hours				Credit
			L	T	P	Total	
1.	22B21MA111	Major 1 (Introduction to Programming using C)	3	0	0	3	3
2.	22B25MA111	Major 1 (Introduction to Programming using C-LAB)	0	0	4	4	2
3.	22B21MA113	Minor 1 (Discrete Mathematical Structures)	3	1	0	4	4
4.	23B21PH111	Multi-disciplinary-1 (Optics and Electromagnetism)	3	0	0	3	3
5.	22B28HS111	AEC1 (English)	1	0	2	3	2
6.	22B12HS111	SEC1 (Life Skills and Effective Communications)	2	0	2	4	3
7.	22B28MA111	VAC1 (Multimedia and Animation Workshop)	1	0	2	3	2
8.	23B66CS114	VAC2 (DOS Workshop/ Introduction to Digital Technologies)	0/2	0/0	4/0	4/2	2
TOTAL			13	1	14	28	21

Second Semester

S. N.	Course Code	Course	Contact hours				Credit
			L	T	P	Total	
1.	23B21MA111	Major 2 (Data Structure)	3	0	0	3	3
2.	23B25MA111	Major 2 (Data Structure Lab)	0	0	4	4	2
3.	23B21MA112	Minor 2 (Calculus)	3	1	0	4	4
4.	23B21PH112	Multi-disciplinary-2 (Modern Physics)	3	0	0	3	3
5.	23B12BT111	AEC2 (Environmental Science)	2	0	0	2	2
6.	23xxxxxxxx	SEC2 (Objected Oriented Programming using C++)	2	0	2	4	3
7.	23B58CS125	VAC3 (Unix Workshop)	1	0	2	3	2
TOTAL			14	1	8	23	19

Third Semester

S. N.	Course Code	Course	Contact hours				Credit
			L	T	P	Total	
1.	23B21MA211	Major 3 (Operating System)	3	1	0	4	4
2.	23B25MA211	Major 3 (Operating System Lab)	0	0	2	2	1
3.	23xxxxxxxx	Major 4	3	1	0	4	4
4.	15B11MA302	Minor 3(Probability and Statistics)	3	1	0	4	4
5.	23xxxxxxxx	Multi-disciplinary-3(Social Media & Digital Marketing)	3	0	0	3	3
6.	23B21HS211	AEC3 (English Literature)	2	0	0	2	2
7.	23xxxxxxxx	SEC3 (Web Technology)	2	0	2	4	3
		TOTAL	16	3	4	23	21

Major 4

S. N.	Course Code	Course	
1	23xxxxxxxx	Computer Architecture	CSE
2	23xxxxxxxx	Mobile Computing	IT
3	23xxxxxxxx	Data Mining	CP

Fourth Semester

S. N.	Course Code	Course	Contact hours				Credit
			L	T	P	Total	
1.	xxxxxxxx	Major 5 (Open Source Programming)	3	0	0	3	3
2.	xxxxxxxx	Major 5 (Open Source Programming-Lab)	0	0	2	2	1
3.	xxxxxxxx	Major 6 (Data Base Management System)	3	1	0	4	4
4.	xxxxxxxx	Major 6 (Data Base Management System-Lab)	0	0	2	2	1
5.	xxxxxxxx	Major 7 (Theory)	3	0	0	3	3
6.	xxxxxxxx	Major 7 (Lab)	0	0	2	2	1
7.	xxxxxxxx	Minor 4 (Linear Algebra)	3	1	0	4	4
8.	xxxxxxxx	AEC4 (Sustainable Development)	2	0	0	2	2
		TOTAL	14	2	6	22	19

Major 7 (Theory)

S. N.	Course Code	Course	
1.	XXXXXXXXXX	Design and Analysis of Algorithms	CSE
2.	XXXXXXXXXX	Software Quality & Testing	IT
3.	XXXXXXXXXX	Large Scale Graph Algorithms & Analytics	CP

Major 7 (Lab)

S. N.	Course Code	Course	
1.	XXXXXXXXXX	Design and Analysis of Algorithms-Lab	CSE
2.	XXXXXXXXXX	Software Quality & Testing-Lab	IT
3.	XXXXXXXXXX	Large Scale Graph Algorithms & Analytics-Lab	CP

Fifth Semester

S. N.	Course Code	Course	Contact hours				Credit
			L	T	P	Total	
1.	XXXXXXXXXX	Major 8 (AI and Machine Learning)	3	0	0	3	3
2.	XXXXXXXXXX	Major 8 (AI and Machine Learning-Lab)	0	0	2	2	1
3.	XXXXXXXXXX	Major 9 (Distributed and Parallel Computing)	3	0	0	3	3
4.	XXXXXXXXXX	Major 10 (Theory)	3	1	0	4	4
5.	XXXXXXXXXX	Major 10 (Lab)	0	0	2	2	1
6.	XXXXXXXXXX	Minor 5 (Number Theory and Cryptography)	3	1	0	4	4
7.	XXXXXXXXXX	Summer Internship	0	0	8	8	4
TOTAL			12	2	12	26	20

Major 10 (Theory)

S. N.	Course Code	Course	
1.	XXXXXXXXXX	Computer Networks	CSE
2.	XXXXXXXXXX	Information System and Security	IT
3.	XXXXXXXXXX	Wireless and Adhoc Networks	CP

Major 10 (Lab)

S. N.	Course Code	Course	
1.	XXXXXXXXXX	Computer Networks -Lab	CSE
2.	XXXXXXXXXX	Information System and Security-Lab	IT
3.	XXXXXXXXXX	Wireless and Adhoc Networks -Lab	CP

Sixth Semester

S. N.	Course Code	Course	Contact hours				Credit
			L	T	P	Total	
1.	XXXXXXXXXX	Major 11 (Cloud Computing)	3	0	0	3	3
2.	XXXXXXXXXX	Major 11 (Cloud Computing-Lab)	0	0	2	2	1
3.	XXXXXXXXXX	Major 12	3	1	0	4	4
4.	XXXXXXXXXX	Major 13 (Java Programming)	3	0	0	3	3
5.	XXXXXXXXXX	Major 13 (Java Programming-Lab)	0	0	2	2	1
6.	XXXXXXXXXX	Major 14 (Software Engineering)	3	0	0	3	3
7.	XXXXXXXXXX	Major 14 (Software Engineering-Lab)	0	0	2	2	1
8.	XXXXXXXXXX	Minor 6 (Operations Research)	3	1	0	4	4
		TOTAL	15	2	6	23	20

Major 12

S. N.	Course Code	Course	
1.	XXXXXXXXXX	Fundamentals of Soft Computing	CSE
2.	XXXXXXXXXX	E-Commerce	IT
3.	XXXXXXXXXX	Nature inspired Computing	CP

Total Credits: 120

Seventh Semester

S. N.	Course Code	Course	Contact hours				Credit
			L	T	P	Total	
1.	XXXXXXXXXX	Major 15	3	1	0	4	4
2.	XXXXXXXXXX	Major 16 (Research Methodology)	3	1	0	4	4
3.	XXXXXXXXXX	Major 17 (Internet of Things: Design and Development)	3	0	0	3	3
4.	XXXXXXXXXX	Major 17 (Internet of Things: Design and Development-Lab)	0	0	2	2	1
5.	XXXXXXXXXX	Major 18 (Computer Security)	3	0	0	3	3
6.	XXXXXXXXXX	Major 18 (Computer Security-Lab)	0	0	2	2	1
7.	XXXXXXXXXX	Minor 7 (Numerical Techniques)	3	0	0	3	3
8.	XXXXXXXXXX	Minor 7 (Numerical Techniques-Lab)	0	0	2	2	1
		TOTAL	15	2	6	23	20

Major 15

S. N.	Course Code	Course	
1.	XXXXXXXXXX	Introduction to Deep Learning	CSE
2.	XXXXXXXXXX	Enterprise Resource Planning	IT
3.	XXXXXXXXXX	Big Data with Hadoop and Spark	CP

Eighth Semester

S. N.	Course Code	Course	Contact hours				Credit
			L	T	P	Total	
1.	XXXXXXXXXX	Major 19	3	1	0	4	4
2.	XXXXXXXXXX	Minor 8 (Data Science)	3	1	0	4	4
3.	XXXXXXXXXX	Dissertation	0	0	24	24	12
		TOTAL	6	2	24	32	20

Major 19

S. N.	Course Code	Course	
1.	XXXXXXXXXX	Introduction to Blockchain Technologies	CSE
2.	XXXXXXXXXX	Agile Software Development Process	IT
3.	XXXXXXXXXX	Computing for data science	CP

Total Credits: 160