



Curriculum Structure

Semester 1						
Sl. No.	Course Code	Course Name	L	T	P	Credits
Theory						
1	BITCNS101	Programming for Problem Solving	3	0	0	3
2	BITCNS102	Mathematics for Computer Science	3	1	0	4
3	BITCNS103	Introduction to Financial Technology	3	1	0	4
4	BITCNS104	e-Commerce security	3	0	0	3
5	BITCNS105	Soft Skills	3	0	0	3
Practical						
1	BITCNS191	Programming for Problem Solving Lab	0	0	4	2
2	BITCNS194	e-Commerce security Lab	0	0	4	2
3	BITCNS195	Soft Skills Lab	0	0	2	1
Total Credit						22
Semester 2						
Sl. No.	Course Code	Course Name	L	T	P	Credits
Theory						
1	BITCNS201	Data Structure and Algorithm with Python	3	0	0	3
2	BITCNS202	Computation Number Theory	3	0	0	3
3	BITCNS203	Operation Research and Game theory	3	1	0	4
4	BITCNS204	Discrete Mathematics	3	1	0	4
5	BITCNS205	Environmental Science	1	0	0	1
Practical						
1	BITCNS291	Data Structure and Algorithm with Python Lab	0	0	4	2
2	BITCNS292	Computation Number Theory Lab	0	0	4	2
Sessional						
1	BITCNS281	Project 1	0	0	2	1
Total Credit						20



Syllabus of B.Sc. in Information Technology (Cryptography and Network Security)
(Effective from academic session 2019-20)

Semester 3						
Sl. No.	Course Code	Course Name	L	T	P	Credits
Theory						
1	BITCNS301	Computer Networks	3	0	0	3
2	BITCNS302	Operating Systems	3	0	0	3
3	BITCNS303	Probability & Statistics	3	0	0	3
4	BITCNS304	Web security	3	1	0	4
5	BITCNS305	Cryptography	3	1	0	4
Practical						
1	BITCNS391	Computer Networks Lab	0	0	4	2
2	BITCNS392	Operating Systems Lab	0	0	4	2
Total Credit						21
Semester 4						
Sl. No.	Course Code	Course Name	L	T	P	Credits
Theory						
1	BITCNS401	Introduction to Information Security	3	0	0	3
2	BITCNS402	Object-Oriented Programming with JAVA	3	1	0	4
3	BITCNS403	Secure Software Design & Enterprise Computing	3	1	0	4
4	BITCNS404	DBMS and SQL Injection	3	0	0	3
5	BITCNS405	E-Governance	3	1	0	4
Practical						
1	BITCNS492	Object-Oriented Programming with JAVA Lab	0	0	4	2
2	BITCNS494	DBMS and SQL Injection Lab	0	0	4	2
Sessional						
1	BITCNS481	Project II	0	0	4	2
Total Credit						24
Semester 5						
Sl.	Course	Course Name	L	T	P	Credits



No.	Code					
Theory						
1	BITCNS501	Introduction to Theory of Computer	3	1	0	4
2	BITCNS502	Block Chain Technology	3	1	0	4
3	BITCNS503	Network Security	3	0	0	3
4	BITCNS504	Elective 1	3	0	0	3
		A. Information and coding Theory				
		B. Advanced Unix and Shell Programming				
		C. Human Computer Interaction				
		D. Multimedia & Graphics				
Practical						
1	BITCNS593	Network Security Lab	0	0	4	2
Sessional						
1	BITCNS581	Industrial Training and Internship	0	0	2	1
2	BITCNS582	Major Project I	0	0	4	2
		Total Credit				19
Semester 6						
Sl. No.	Course Code	Course Name	L	T	P	Credits
Theory						
1	BITCNS601	Elliptic Curve Cryptography	3	1	0	4
2	BITCNS602	Cloud Security	3	1	0	4
3	BITCNS603	Elective 2	3	0	0	3
		A. Steganography & Watermarking				
		B. Multimedia Security				
		C. System Security				
Sessional						
1	BITCNS681	Grad Viva	0	0	2	1
2	BITCNS682	Major Project II	0	0	4	4
		Total Credit				16