Mathematics and Computing

SEMESTER - I (Common for all B.Tech Courses)

S.No	C. Code	Course	L	T	P	C
1	MA 101	Calculus	3	1	0	8
2	PH 101	Quantum Physics and Applications	2	1	0	6
3	CH 102	Fundamental Concepts and Applications of Chemistry	3	0	0	6
4	BB 103	Introduction to Modern biology	3	0	0	6
5	PH 113	Hands on Science Laboratory - I	0	0	3	3
6	CS 101	Computer Programming	3	0	2	8
7	HS 106	Design Thinking and Creativity	1	0	0	PP/NP
8	NO107/ NO105/ NO 106/ NO 108	NSO/NSS/NCC/NCA	0	0	2	2
		First Semester Total Credits				37

Semester - II

S. No	Course Code	Course Name	L	T	P	C
1	MA 102	Linear Algebra (1st Half)	3	1	0	4
2	MA 103	Differential Equations - I (2nd Half)	3	1	0	4
3	ME 111	Engineering Graphics Laboratory	1	0	3	5
4	EE 101	Introduction to Electrical Systems and Electronics	3	0	0	6
5	CS 201	Data Structures and Algorithms	3	0	0	6
6	CS 211	Data Structures and Algorithms Laboratory	0	0	3	3
7	ME 113	Hands on Engineering Laboratory	0	0	3	3
8	PH 102	Electricity and magnetism	2	1	0	6
9	NO107/ NO105/ NO 106/ NO 108	NSO/NSS/NCC/NCA	0	0	2	2
		Total Credits				37

Semester III

S.No	Course code	Course name	L	T	P	C
1	CS203T	Design and analysis of algorithms	3	0	0	6
2	CS202T	Discrete structures	3	0	0	6
3	EE205T	Introduction to Probability (1st Half)	3	0	0	3
4	EE 227	Data Analysis (2nd Half)	3	0	0	3
5	HS201T	Economics	3	0	0	6
6	CS201C	Software Systems Lab	1	3	0	8

7	CS403T	Graph Theory and Combinatorics	3	0	0	6
Total credits						38

Semester IV						
S.No	Course code	Course name	L	T	P	C
1	CE301T	Environmental studies	3	0	0	6
2	CS204T	Artificial intelligence	3	0	0	6
3	CS302T	Computer Architecture	3	0	0	6
4	CS 214	Artificial intelligence Laboratory	0	0	3	3
5	CS301L	Computer Architecture Laboratory	0	0	3	3
6	MA302T	Real Analysis	2	1	0	6
7	MA402T	Statistics	3	0	0	6
Total credits						36

Semester V						
S.No	Course code	Course name	L	T	P	C
1	MA407T	Stochastic Models	3	0	0	6
2	MA404T	Introduction to Mathematical Finance I	3	0	0	6
3		CSE Elective I				6
4		Mathematics Elective I				6
5		HSS Elective I	3	0	0	6
6	CS407T	Mathematics for Data Science	3	0	0	6
Total credits						36

Semester VI						
S.No	Course code	Course name	L	T	P	C
1	CS201T	Automata theory	3	1	0	8
2	MA303T	Group Theory	2	1	0	6
3	MA408T	Introduction to Mathematical Finance 2	3	0	0	6
4	CS 315	CSE Elective /Mathematics Elective/R&D project				6
5		HSS Elective II	3	0	0	6
Total credits						32

Semester VII						
S.No	Course Code	Course Name	L	T	P	C
1		CSE Elective /Mathematics Elective				6
2		Institute Elective/BTP				6
3		Institute Elective				6
Total credits						18

S.No	Course Code	Course Name	L	T	P	C
		Semester VIII				
1		CSE Elective /Mathematics Elective				6
2		Institute Elective/BTP				6
3		Institute Elective				6
Overal Credits Required (Minimum)						18
	Overal Credits Required (Minimum)					**252**