Civil and Infrastructure Engineering

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 103	Introduction to Fine Arts	0	0	1	PP/NP
8	HS 106	Design Thinking and Creativity	1	0	0	PP/NP
9	NO107/NO105	NSO/NSS	0	0	2	2
	First Semester Total Credits					37

Semester II

S.No	Course Code	Course Name	L	T	P	C
1	CE 101	Introduction to Civil Engineering	2	1	0	6
2	CS 201	Data Structures & Algorithms	3	0	0	6
3	CS 211	Data Structures & Algorithms Lab	0	0	3	3
4	MA 103	Differential Equations I (2nd Half Semester)	3	1	0	4
5	MA 406	Introduction to Numerical Methods (1st Half Semester)	3	1	0	4
6	ME 201	Engineering Mechanics	2	1	0	6
7	ME 111	Engineering Graphics Lab	1	0	3	5
8	ME 113	Hands-on Engineering Lab	0	0	3	3
9	NO 105/ NO 107	National Sports Organization (NSO)/National Service Scheme (NSS)	1	0	0	2
		Total Number of Credits				37

Semester III

S.No	Course Code	Course Name	L	T	P	C
1	ME 203	Fluid Mechanics	2	1	0	6
2	ME 222	Mechanics of Materials	2	1	0	6
3	CE 201	Building and Construction Materials	1	1	2	6
4	HS 201	Economics	2	1	0	6
5	CE 204	Hydraulics Engineering	2	1	0	6
6	CE 203	Building Planning and Drawing	2	0	2	6
		Total Credits				36

Semester IV

S.No	Course Code	Course Name	L	T	P	C
1	CE 202	Surveying and Geomatics	2	1	0	6
2	CE 212	Surveying and Geomatics Laboratory	0	0	3	3
3	CE 205	Structural Analysis	2	1	0	6
4	ME 218	Solid Mechanics Laboratory	0	0	3	3
5	ME224	Fluid Mechanics Laboratory	0	0	3	3
6	CE 301	Environmental Studies	3	0	0	6
7	CE 206	Water Resources Engineering	2	1	0	6
		Institute Elective-I	2	1	0	6
		Total Credits				39

Semester V

S.No	Course Code	Course Name	L	T	P	C
1	CE302T	Design of Concrete Structures	2	1	0	6
2	CE303T	Geotechnical Engineering	2	1	0	6
3	CE304T	Transportation Engineering	2	1	0	6
4	CE302L	Transportation Engineering Laboratory	0	0	3	3

5	CE303L	Geotechnical Engineering Laboratory	0	0	3	3
6	Environmental Engineering	Environmental Engineering	2	1	0	6
7	CE304L	Environmental Engineering Laboratory	0	0	3	3
8	CE305L	Civil Engineering Software Laboratory	0	0	3	3
		Total Credits				36

Semester VI

S.No	Course Code	Course Name	L	T	P	C
1	CE306T	Design of Steel Structures	2	1	0	6
2	CE301C	Sensor Technologies & Instrumentation in Civil Engineering	2	0	2	6
3	CE307T	Foundation Engineering	2	1	0	6
4	CE308T	Estimation and Costing in Civil Engineering	1.5	0	0	3
5		Institute Elective-II	2	1	0	6
6		HSS Elective-I [from Basket: 1 OR 2] (Professional/Applied Ethics)	2	1	0	6
		Total Credits				33

Semester VII

S.No	Course Code	Course Name	L	T	P	C
1	CE309T	Construction Engineering & Management	2	1	0	6
2	CE401C	Civil and Infrastructure Engineering Design	1	0	1	3
3		Institute Elective-V				6
4		HSS Basket 1 or 2 (Elective-II)				6
5		BTP-I/Program Elective-I	0	0	6	6
		Total Credits				27

Semester VIII

S.No	Course Code	Course Name	L	T	P	C
1		BTP-II/Program Elective-II	0	0	6	6
		Total Credits				6
	Overal Credits Required (Minimum)					**254**