

CIVIL ENGINEERING
B. TECH (PART TIME) DEGREE COURSE

2013 SCHEME (RESTRUCTURED)

UNIVERSITY OF KERALA
THIRUVANANTHAPURAM

SCHEME -2013
PART TIME B.TECH (RESTRUCTURED)
CIVIL ENGINEERING (C)

First Semester

PT B. Tech Course No	Equivalent B. Tech Course No	Name of subject	Credits	Weekly load, hours			C A Marks	Exam Duration Hrs	U E Max Marks	Total Marks
				L	T	D/P				
P 13.101	13.301	Engineering Mathematics-II (ABCEFHMNPRSTU)	4	3	1	-	50	3	100	150
P 13.102	13.302	Mechanics of Structures (C)	4	3	1	-	50	3	100	150
P 13.103	13.303	Fluid Mechanics I (C)	4	3	1	-	50	3	100	150
P 13.104	13.106	Building Technology (C)	6	4	2	-	50	3	100	150
P 13.105	13.305	Surveying I (C)	5	4	1	-	50	3	100	150
Total			23	17	6	0	250		500	750

Second Semester

PT B. Tech Course No	Equivalent B. Tech Course No	Name of subject	Credits	Weekly load, hours			C A Marks	Exam Duration Hrs	U E Max Marks	Total Marks
				L	T	D/P				
P 13.201	13.401	Engineering Mathematics III (BCHMNPSU)	4	3	1	-	50	3	100	150
P 13.202	13.402	Humanities (ACHPT)	3	3	-	-	50	3	100	150
P 13.203	13.403	Structural Analysis - I (C)	4	3	1	-	50	3	100	150
P 13.204	13.404	Fluid Mechanics II (C)	4	3	1	-	50	3	100	150
P 13.205	13.405	Surveying II (C)	5	4	1	-	50	3	100	150
P 13.206	13.408	Fluid Mechanics Lab. (C)	2	-	-	2	50	3	100	150
Total			22	16	4	2	300		600	900

Third Semester

PT B. Tech Course No	Equivalent B. Tech Course No	Name of subject	Credits	Weekly load, hours			C A Marks	Exam Duration Hrs	U E Max Marks	Total Marks
				L	T	D/P				
P 13.301	13.501	Engineering Mathematics - IV (CMPSU)	4	3	1	-	50	3	100	150
P 13.302	13.503	Structural Analysis II (C)	5	4	1	-	50	3	100	150
P 13.303	13.304	Concrete Technology & Advanced Construction (C)	4	3	1	-	50	3	100	150
P 13.304	13.306	Engineering Geology (C)	4	3	1		50	3	100	150
P 13.305	13.307	Building Drawing (C)	2	-	-	2	50	3	100	150
P 13.306	13.508	Concrete Lab. (C)	2	-	-	2	50	3	100	150
P 13.307	13.308	Practical Surveying I (C)	2	-	-	2	50	3	100	150
Total			23	13	4	6	350		700	1050

Fourth Semester

PT B. Tech Course No	Equivalent B. Tech Course No	Name of subject	Credits	Weekly load, hours			C A Marks	Exam Duration Hrs	U E Max Marks	Total Marks
				L	T	D/P				
P 13.401	13.406	Building Planning & Drawing (C)	5	3		2	50	3	100	150
P 13.402	13.407	Strength of Materials Lab. (C)	2	-	-	2	50	3	100	150
P 13.403	13.601	Design of Hydraulic Structures (C)	5	3	-	2	50	4	100	150
P 13.404	13.602	Design of Reinforced Concrete Structures (C)	5	3	2	-	50	3	100	150
P 13.405	13.606	Computer Programming and Numerical Methods (C)	3	3	-		50	3	100	150
P 13.406	13.608	Computer Aided Design & Drafting Lab. (C)	2	-	-	2	50	3	100	150
Total			22	12	2	8	300		600	900

Fifth Semester

PT B. Tech Course No	Equivalent B. Tech Course No	Name of subject	Credits	Weekly load, hours			C A Marks	Exam Duration Hrs	U E Max Marks	Total Marks
				L	T	D/P				
P 13.501	13.502	Environmental Engineering I (C)	4	3	1	-	50	3	100	150
P 13.502	13.504	Geotechnical Engineering I (C)	4	3	1	-	50	3	100	150
P 13.503	13.505	Transportation Engineering I (C)	4	3	1	-	50	3	100	150
P 13.504	13.506	Water Resources Engineering (C)	4	3	1		50	3	100	150
P 13.505	13.703	Advanced Structural Analysis (C)	4	2	2	-	50	3	100	150
P 13.506	13.507	Practical Surveying II (C)	2	-	-	2	50	3	100	150
Total			22	14	6	2	300		600	900

Sixth Semester

PT B. Tech Course No	Equivalent B. Tech Course No	Name of subject	Credits	Weekly load, hours			C A Marks	Exam Duration Hrs	U E Max Marks	Total Marks
				L	T	D/P				
P 13.601	13.603	Environmental Engineering II (C)	4	3	1	-	50	3	100	150
P 13.602	13.604	Geo-technical Engineering II (C)	4	3	1	-	50	3	100	150
P 13.603	13.605	Transportation Engineering II (C)	4	3	1	-	50	3	100	150
P 13.604	13.803	Urban Planning and Architecture (C)	4	3	1	-	50	3	100	150
P 13.605	13.804	Construction Management (C)	3	3	-	-	50	3	100	150
P 13.606	13.607	Transportation Engineering Lab. (C)	2	-	-	2	50	3	100	150
P 13.607	13.707	Geotechnical Engineering Lab. (C)	2	-	-	2	50	3	100	150
Total			23	15	4	4	350		700	1050

Seventh Semester

PT B. Tech Course No	Equivalent B. Tech Course No	Name of subject	Credits	Weekly load, hours			C A Marks	Exam Duration Hrs	U E Max Marks	Total Marks
				L	T	D/P				
P 13.701	13.701	Design of Steel Structures (C)	5	3	2	-	50	3	100	150
P 13.702	13.702	Design and Drawing of Reinforced concrete structures (C)	5	3	-	2	50	4	150	200
P 13.703	13.704	Elective – I	4	3	1	-	50	3	100	150
P 13.704	13.705	Elective – II	4	3	1	-	50	3	100	150
P 13.705	13.706	Environmental Engineering Lab. (C)	2	-	-	2	50	3	100	150
P 13.706	13.708	(a) Seminar (b) Survey Camp & Industrial Visit	3	-	-	3	150	-	-	150
Total			23	12	4	7	400		550	950

Eighth Semester

PT B. Tech Course No	Equivalent B. Tech Course No	Name of subject	Credits	Weekly load, hours			C A Marks	Exam Duration Hrs	U E Max Marks	Total Marks
				L	T	D/P				
P 13.801	13.801	Quantity Surveying and Valuation (C)	4	3	1	-	50	3	100	150
P 13.802	13.802	Design & Drawing of Steel Structures (C)	5	3	-	2	50	4	150	200
P 13.803	13.805	Elective - III	4	3	1	-	50	3	100	150
P 13.804	13.806	Elective - IV	4	3	1	-	50	3	100	150
P 13.805	13.807	Project , Viva-Voce (C)	5	-	-	5	200	-	100	300
Total			22	12	3	7	400		550	950

Elective I

PT B. Tech Course No	Equivalent B. Tech Course No	Name of subject
P 13.703.1	13.704.1	Structural Analysis for Dynamic Loads (C)
P 13.703.2	13.704.2	Advanced Design of Reinforced Concrete Structures (C)
P 13.703.3	13.704.3	Earth dam Engineering (C)
P 13.703.4	13.704.4	Soil Exploration (C)
P 13.703.5	13.704.5	Geoinformatics (C)
P 13.703.6	13.704.6	Free Surface Flow (C)
P 13.703.7	13.704.7	Air Quality Management (C)
P 13.703.8	13.704.8	Highway and Airfield Pavement Materials (C)
P 13.703.9	13.704.9	Sustainable Development (C)
P 13.703.10	13.704.10	Coastal Engineering (C)
P 13.703.11	13.704.11	Environmental Science and Management (C)
P 13.703.12	13.704.12	Modern Construction Materials (C)

Elective II

PT B. Tech Course No	Equivalent B. Tech Course No	Name of subject
P 13.704.1	13.705.1	Pre-stressed Concrete (C)
P 13.704.2	13.705.2	Mechanics of Composite Materials (C)
P 13.704.3	13.705.3	Ground Improvement (C)
P 13.704.4	13.705.4	Geo Environmental Engineering (C)
P 13.704.5	13.705.5	Ground Water Engineering (C)
P 13.704.6	13.705.6	Solid Waste Management (C)
P 13.704.7	13.705.7	Transportation Planning (C)
P 13.704.8	13.705.8	Advanced Computational Methods (C)
P 13.704.9	13.705.9	Optimization Techniques in Engineering (C)
P 13.704.10	13.705.10	Design of Offshore Structures (C)
P 13.704.11	13.705.11	Transportation System Management (C)

Elective III

PT B. Tech Course No	Equivalent B. Tech Course No	Name of subject
P 13.803.1	13.805.1	Earthquake Resistant Design of Structures (C)
P 13.803.2	13.805.2	Wind Loading on Structures (C)
P 13.803.3	13.805.3	Deep Foundations (C)
P 13.803.4	13.805.4	Earthquake Geotechnical Engineering (C)
P 13.803.5	13.805.5	Urban Water Management and Environmental Hydraulics (C)
P 13.803.6	13.805.6	Environmental Impact Assessment (C)
P 13.803.7	13.805.7	Design and Construction of pavements (C)
P 13.803.8	13.805.8	Repair & Rehabilitation of Structures (C)

Elective IV

PT B. Tech Course No	Equivalent B. Tech Course No	Name of subject
P 13.804.1	13.806.1	Finite Element Methods (C)
P 13.804.2	13.806.2	Design of Bridges (C)
P 13.804.3	13.806.3	Reinforced Earth (C)
P 13.804.4	13.806.4	Advanced Foundation Engineering (C)
P 13.804.5	13.806.5	Irrigation and Drainage Engineering (C)
P 13.804.6	13.806.6	Industrial Waste Water Management (C)
P 13.804.7	13.806.7	Traffic Engineering (C)
P 13.804.8	13.806.8	Valuation of Real Properties (C)
P 13.804.9	13.806.9	Design of Port, Harbour and Coastal Structures (C)