



BACHELOR OF TECHNOLOGY (CS/ME/EE/CE)

Programme Structure w.e.f 2020-21

COMPUTER SCIENCE ENGINEERING

Semester –I

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTCBSC 101	Physics(semiconductor Physics)	3	1	0	30	70	100	4
BTCBSC 102	Mathematics-1 (Calculus & Linear Algebra)	3	1	0	30	70	100	4
BTCSESC 103	Basic Electrical Engineering	3	1	0	30	70	100	4
BTCSESC 104	Engineering Graphics & Design	1	0	0	30	70	100	1
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTCBSC105	Physics Lab	-	-	3	30	20	50	1.5
BT CSESC106	Basic Electrical Engineering Lab	-	-	2	30	20	50	1
BTCSESC 107	Engineering Graphics & Design Lab	-	-	4	30	20	50	2
TOTAL		10	3	9	210	340	550	17.5

Semester –II

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTC SBSC 201	Chemistry –I	3	1	0	30	70	100	4
BTC SBSC202	Mathematics-II (Probability and Statistics)	3	1	0	30	70	100	4
BTCSESC203	Programming for Problem Solving	3	0	0	30	70	100	3
BTCSESC204	Workshop /Manufacturing Practices	1	0	0	30	70	100	1
BTC SHSMC205	English	2	0	0	30	70	100	2
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTCSESC 206	Chemistry –I Lab	-	-	3	30	20	50	1.5
BTCSESC207	Programming for Problem solving Lab	-	-	4	30	20	50	2
BTCSECS208	Workshop/Manufacturing Practices Lab	-	-	4	30	20	50	2
BTC SHSMC209	English Lab	-	-	2	30	20	50	1
TOTAL		12	2	13	270	430	700	20.5

THIRD SEMESTER

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTCSESC 301	Analog Electronic Circuits	3		-	30	70	100	3
BTCSPCC 302	Data structure & Algorithms	3		-	30	70	100	3
BTCSPCC 303	Digital Electronics	3		-	30	70	100	3
BTCSPCC 304	IT Workshop (Sci Lab/MATLAB)	1		-	30	70	100	1
BTC SBSC 305	Mathematics-III (Differential Calculus)	2		-	30	70	100	2
BTC SHSMC 306	Humanities-I(Effective Technical Communication)	3		-	30	70	100	3
PRACTICALS/VIVA-VOCE								
		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTCSESC 307	Analog Electronic Circuits Lab		-	4	30	20	50	2
BTCSPCC 308	Data structure & Algorithms Lab		-	4	30	20	50	2
BTCSPCC 309	Digital Electronics Lab		-	4	30	20	50	2
BTCSPCC 310	IT Workshop Lab (Sci Lab/MATLAB)		-	4	30	20	50	2
TOTAL		15	0	16	300	500	800	23

FOURTH SEMESTER

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTCSPCC 401	Discrete Mathematics	3	1	-	30	70	100	4
BTCSESC 402	Computer Organization & Architecture	3		-	30	70	100	3
BTCSPCC 403	Operating Systems	3		-	30	70	100	3
BTCSPCC 404	Design & Analysis of Algorithms	3		-	30	70	100	3
BTCSHSMC 405	Management I (Organizational Behavior/ Finance & Accounting)	3		-	30	70	100	3
BTCSMC 406	Environmental Sciences	3		-	30	70	100	0
PRACTICALS/VIVA-VOCE								
		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTCSESC 407	Computer Organization & Architecture Lab	-	-	4	30	20	50	2
BTCSPCC 408	Operating Systems Lab	-	-	4	30	20	50	2
BTCSPCC 409	Design & Analysis of Algorithms Lab	-	-	4	30	20	50	2
TOTAL		18	1	12	270	480	750	22

FIFTH SEMESTER

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTCSESC 501	Signals & Systems	3		-	30	70	100	3
BTCSPCC 502	Data base Management Systems	3		-	30	70	100	3
BTCSPCC 503	Formal Language & Automata Theory	3		-	30	70	100	3
BTCSPCC 504	Object Oriented Programming	2		-	30	70	100	2
BTCSHSMC 505	Humanities II	3		-	30	70	100	3
Elective-I								
BTCSPEC 506A	Software Engineering	3		-	30	70	100	3
BTCSPEC 506B	Graph Theory	3		-	30	70	100	3
BTCSPEC 506C	Embedded Systems	3		-	30	70	100	3
BTCSMC 507	Constitution of India/Essence of Indian Traditional Knowledge	-		-	30	70	100	0

<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTCSPCC 507	Data base Management Systems Lab	-	-	4	30	20	50	2
BTCSPCC 508	Object Oriented Programming Lab.	-	-	4	30	20	50	2
TOTAL		17	0	8	240	460	700	21

SIXTH SEMESTER

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTCSPCC 601	Compiler Design	3		-	30	70	100	3
BTCSPCC 602	Computer Networks	3		-	30	70	100	3
Elective-II								
BTCSPEC 603A	Artificial Intelligence	3		-	30	70	100	3
BTCSPEC 603B	Cryptography & Network Security	3		-	30	70	100	3
BTCSPEC 603C	Internet-of-Things	3		-	30	70	100	3
Elective-III								
BTCSPEC 604A	Data Analytics	3		-	30	70	100	3
BTCSPEC 604B	Machine Learning	3		-	30	70	100	3
BTCSPEC 604C	Theory of Computation	3		-	30	70	100	3
Open Elective-I (Humanities)								
BTCSOEC 605A	Soft Skills and Interpersonal Communication	3		-	30	70	100	3
BTCSOEC 605B	ICT for Development	3		-	30	70	100	3
BTCSOEC 605C	Cyber Law and Ethics	3		-	30	70	100	3
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTCSPCC 606	Compiler Design Lab.	-	-	4	30	20	50	2
BTCSPCC 607	Computer Networks Lab	-	-	4	30	20	50	2
BTCSPROJ 608	Project-1	-	-	6	45	30	75	3
TOTAL		15	0	14	255	420	675	22

SEVENTH SEMESTER

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
Elective-IV								
BTCSPEC 701A	Advanced Computer Architecture	3		-	30	70	100	3
BTCSPEC 701B	Distributed Systems	3		-	30	70	100	3
BTCSPEC 701C	Advanced Operating Systems	3		-	30	70	100	3
Elective-V								
BTCSPEC 702A	Speech and Natural Language Processing	3		-	30	70	100	3
BTCSPEC 702B	Soft Computing	3		-	30	70	100	3
BTCSPEC 702C	Data Mining	3		-	30	70	100	3
Open Elective-II								
BTCOEC 703A	Human Resource Development and Organizational Behavior	3		-	30	70	100	3
BTCOEC 703B	Indian Music System	3		-	30	70	100	3
BTCOEC 703C	Introduction to Art and Aesthetics	3		-	30	70	100	3
BTCSPROJ 704	Biology	2	1	-	30	70	100	3
<i>PRACTICALS/VIVA-VOCE</i>								
		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTCSPROJ 705	Project-II			12	90	60	150	6
TOTAL		11	1	12	210	340	550	18

EIGHTH SEMESTER

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
Elective-VI								
BTCSPEC 801A	Ad-Hoc and Sensor Networks	3		-	30	70	100	3
BTCSPEC 801B	Real Time Systems	3		-	30	70	100	3
BTCSPEC 801C	Fault Tolerant Computing	3		-	30	70	100	3
Open Elective-III								
BTCOEC 802A	History of Science	3		-	30	70	100	3
BTCOEC 802B	Economic Policies in India	3		-	30	70	100	3
Open Elective-IV								
BTCOEC 803A	Comparative Study of Literature	3		-	30	70	100	3
BTCOEC 803B	Economic Policies in India	3		-	30	70	100	3
BTCOEC 803C	Metro Systems and Engineering	3		-	30	70	100	3
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTCSPROJ 804	Project-III	-	-	12	90	60	150	6
TOTAL		9	0	12	180	270	450	15
Grand Total of Credits								

L=LECTURER, T= TUTORIAL, P=PRACTICAL, IA=INTERNAL ASSESSMENT, EA=EXTERNAL ASSESSMENT

Mechanical Engineering

FIRST SEMESTER (MARKS DISTRIBUTION)

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTMEBSC 101	Physics –I (Electromagnetism)	3	1	0	30	70	100	4
BTMEBSC 102	Mathematics –I (Calculus & Linear Algebra)	3	1	0	30	70	100	4
BTMEESC 103	Basic Electrical Engineering	3	1	0	30	70	100	4
BTMEESC 104	Engineering Graphics & Design	1	0	0	30	70	100	1
BT ME BSC 105	Engineering Physics Lab	0	0	3	30	20	50	1.5
BTME ESC106	Electrical Engineering Lab	0	0	2	30	20	50	1
BTMEESC 107	Engineering Graphics & Design Lab	0	0	4	30	20	50	2
TOTAL		10	3	9	210	340	550	17.5

SECOND SEMESTER (MARKS DISTRIBUTION)

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTMEBSC 201	Chemistry –I	3	1	0	30	70	100	4

BTMEBSC202	Mathematics –II (ODE& Complex Variables)	3	1	0	30	70	100	4
BTME ESC203	Programming for Problem solving	3	0	0	30	70	100	3
BTMEESC204	Workshop/Manufacturing Practices	1	0	0	30	70	100	1
BTMEHSMC205	English	2	0	0	30	20	50	2
BTMEESC 206	Chemistry –I Lab	0	0	3	30	20	50	1.5
BTMEESC207	Programming for Problemsolving Lab	0	0	4	30	20	50	2
BTMEECS209	Workshop/Manufacturing Practices Lab	0	0	4	30	20	50	2
BTMEHSMC210	English LAB	0	0	2	30	20	50	1
BTMEMC 211	Constitution of India	0	0	0	0	0	0	0
TOTAL		12	2	13	300	380	680	20.5

THIRD SEMESTER

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTMEBSC 301	Physics II (Optics & Waves)	3	1	-	30	70	100	4

BTMEBSC 302	Mathematics III (PDE, Probability & Statistics)	3	1	-	30	70	100	4
BTMEBSC 303	Biology	3	-	-	30	70	100	3
BTMEESC 304	Basic Electronics Engineering	3	1	-	30	70	100	4
BTMEESC 305	Engineering Mechanics	3	1	-	30	70	100	4
BTMEPCC 306	Thermodynamics	3	1	-	30	70	100	4
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
-	-	-	-	-	-	-	-	-
TOTAL		18	5	-	180	420	600	23

FOURTH SEMESTER

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTMEPCC 401	Applied Thermodynamics	3	1	-	30	70	100	4
BTMEPCC 402	Fluid Mechanics & Fluid Machines	3	1	-	30	70	100	4
BTMEPCC 403	Strength of Materials	3	1	-	30	70	100	4
BTME PCC404	Materials Engineering	3	-	-	30	70	100	3
BTMEPCC 405	Instrumentation & Control	3	1	-	30	70	100	4
BTMEMC 406	Environmental Science	-	-	-	-	-	-	0
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
-	-	-	-	-	-	-	-	-
TOTAL		15	4	-	180	420	600	19

FIFTH SEMESTER

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTMEPCC	Heat Transfer	3	1	-	30	70	100	4

501								
BTMEPCC 502	Solid Mechanics	3	-	-	30	70	100	4
BTMEPCC 503	Manufacturing Processes	3	-	-	30	70	100	3
BTMEPCC 504	Kinematics & Theory of Machines	3	1	-	30	70	100	4
BTMEHSMC 505	Operation Research	3	-	-	30	70	100	3

<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTMEPCC 507	Mechanical Engineering Laboratory (Thermal) I	-	-	3	30	20	50	1.5
BTMEPRJ 508	Project-I	-	-	2	30	20	50	1
TOTAL		15	2	5	210	390	600	20.5

SIXTH SEMESTER

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTMEPCC 601	Manufacturing Technology	4	-	-	30	70	100	4
BTMEPCC 602	Design of Machine Elements	4	-	-	30	70	100	4
BTMEPEC 603	Internal Combustion Engines	3	-	-	30	70	100	3
BTMEPEC 604	Mechatronic systems	3	-	-	30	70	100	3
BTMEOEC 605	Noise, Vibration & Harshness	3	-	-	30	70	100	3
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessiona l	Practica l	Total	Credits
BTMEPCC 606	Mechanical Engineering Laboratory (Design) II	-	-	3	30	20	50	1.5
BTMEPRJ 607	Project-II	-	-	6	30	20	50	3
TOTAL		16	-	9	210	390	600	21.5

SEVENTH SEMESTER

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTMEPCC 701	Automation in Manufacturing	3	1	-	30	70	100	3
BTMEPEC 702	Refrigeration & Air-conditioning	3		-	30	70	100	3
BTMEPEC 703	Finite Element Analysis	3	1	-	30	70	100	3
BTMEOEC 704	Nanotechnology and Surface Engineering	3		-	30	70	100	3
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTMEPCC 707	Mechanical Engineering Laboratory III (Manufacturing)	-	-	3	30	20	50	1.5
BTMEPRJ 708	Project-III			10	30	20	50	5
TOTAL		12	2	13	180	320	500	18.5

EIGHTH SEMESTER

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTMEPEC 801	Principles Of Management	3	1	-	30	70	100	3
BTMEPEC 802	Automobile Engineering	3	1	-	30	70	100	3
BTMEOEC 803	Product Development and Design	3	-	-	30	70	100	3
BTMEOEC 804	Non Conventional Energy Resources	3	-	-	30	70	100	3
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTMEPR 805	Project-IV	-	-	2	30	20	50	6
TOTAL		12	2	2	150	300	450	18

ELECTRICAL ENGINEERING
BACHELOR OF TECHNOLOGY
FIRST SEMESTER

THEORY PAPERS								
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTEEBSC101	Mathematics – I	3	1	-	30	70	100	4
BTEEBSC102	Physics – I	3	1	-	30	70	100	4
BTEEHSMC103	English	2	-	-	30	70	100	2
BTEEESC104	Programming for Problem Solving	3	-	-	30	70	100	3
<i>PRACTICALS /VIVA VOCE</i>								
		L	T	P	Seasonal	Practical	Total	Credits
BTEEBSC105	Physics – I Lab	-	-	3	30	20	50	1.5
BTEEHSMC106	English Lab	-	-	2	30	20	50	1
BTEEESC107	Programming for Problem Solving Lab	-	-	4	30	20	50	2
	Total	11	2	9	210	340	550	17.5

ELECTRICAL ENGINEERING
BACHELOR OF TECHNOLOGY
THIRD SEMESTER

THEORY PAPERS

Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTEEPCC301	Electrical Circuit Analysis	3	1	-	30	70	100	4
BTEEPCC302	Analog Electronics	3	0	-	30	70	100	3
BTEEPCC303	Electrical Machines – I	3	-	-	30	70	100	3
BTEEPCC304	Electromagnetic Fields	3	1	-	30	70	100	4
BTEEESC305	Engineering Mechanics	3	1	-	30	70	100	4

PRACTICALS /VIVA VOCE

		L	T	P	Seasonal	Practical	Total	Credits
BTEEPCC306	Analog Electronics Laboratory	-	-	2	30	20	50	1
BTEEPCC307	Electrical Machines Laboratory – I	-	-	2	30	20	50	1
BTEEMC308	Slot for MC	-	-	2	-	-	-	0
	Total	15	3	6	210	390	600	20

ELECTRICAL ENGINEERING**BACHELOR OF TECHNOLOGY****FIFTH SEMESTER**

Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTEEPCC501	Power Systems – I (Apparatus and Modelling)	3	0	-	30	70	100	3
BTEEPCC502	Control Systems	3	-	-	30	70	100	3
BTEEPCC503	Microprocessors	3	0	-	30	70	100	3
BTEEPEC504	Programme Elective-1 (Wind and Solar Energy Systems)	3	-	-	30	70	100	3
BTEEOE505	OE-1 (Electronic Devices)	3	-	-	30	70	100	3
BTEEHSMC506	Slot for HS	3	-	-	30	70	100	3
<i>PRACTICALS / VIVA VOCE</i>								
		L	T	P	Seasonal	Practical	Total	Credits
BTEEPCC507	Power Systems Laboratory - I	-	-	2	30	20	50	1
BTEEPCC508	Control Systems Laboratory	-	-	2	30	20	50	1
BTEEPCC509	Microprocessors Laboratory	-	-	2	30	20	50	1
	Total	18	0	6	270	480	750	21

ELECTRICAL ENGINEERING
BACHELOR OF TECHNOLOGY
SIXTH SEMESTER
THEORY PAPERS

Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTEEPCC601	Power Systems – II (Operation and Control)	3	-	-	30	70	100	3
BTEEPEC602	Programme Elective-2 (Line Commutated and Active Rectifiers)	3	-	-	30	70	100	3
BTEEPEC603	Programme Elective-3 (Electrical Drives)	3	-	-	30	70	100	3
BTEEOEC604	OE-2(Data Structures and Algorithms)	3	-	-	30	70	100	3
BTEEHSMC605	Slot for HS	3	-	-	30	70	100	3
<i>PRACTICALS / VIVA VOCE</i>								
		L	T	P	Seasonal	Practical	Total	Credits
BTEEPCC606	Power Systems Laboratory - II	-	-	2	30	20	50	1
BTEEPCC607	Measurements and Instrumentation Laboratory	2	-	2	30	20	50	3
BTEEPCC608	Electronics Design Laboratory	1	-	4	30	20	50	3
BTEEPROJ609	Summer Internship	-	-	-	-	-	-	
	Total	18	0	8	240	410	650	22
		During Summer Vacations / Non-credit						

ELECTRICAL ENGINEERING
BACHELOR OF TECHNOLOGY
SEVENTH SEMESTER
THEORY PAPERS

Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTEEPEC701	Program Elective-4(Electrical and Hybrid Vehicles)	3	0	-	30	70	100	3
BTEEPEC702	Program Elective-5 (Electrical Machine Design)	3	0	-	30	70	100	3
BTEEOEC703	OE-3(Analog and Digital Communication)	3	-	-	30	70	100	3
BTEEOEC704	OE-4(Computer Networks)	3	-	-	30	70	100	3
BTEEPROJ705	Project Stage-I	0		6				3
BTEEHSMC706	Slot for HS	3	-	-	30	70	100	3
	Total	15	0	6	150	350	500	18

ELECTRICAL ENGINEERING
BACHELOR OF TECHNOLOGY
EIGHTH SEMESTER
THEORY PAPERS

Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTEEPEC801	Programme Elective-6 (Power System Protection)	3	-	-	30	70	100	3
BTEEOEC802	OE-5(Embedded Systems)	3	-	-	30	70	100	3
BTEEOEC803	OE-6(VLSI circuits)	3			30	70	100	3
BTEEPROJ804	Project Stage-II	0	-	16	240	160	400	8
	Total	9		16	120	280	400	17
Grand Total of Credits								158

TOTAL CREDITS – 158

B.Tech

Civil Engineering

Semester -I

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTCEBSC 101	Physics (Mechanics & Mechanics of Solids)	3	1	0	30	70	100	4
BTCEBSC 102	Mathematics-I (Calculus, Multivariable Calculus and Linear Algebra)	3	1	0	30	70	100	4
BTCEESC 103	Basic Electrical Engineering	3	1	0	30	70	100	4
BTCEESC 104	Engineering Graphics & Design	1	0	0	30	70	100	1
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTCEBSC105	Physics Lab	-	-	3	30	20	50	1.5
BT CEESC106	Basic Electrical Engineering Lab	-	-	2	30	20	50	1
BTCEESC 107	Engineering Graphics & Design Lab	-	-	4	30	20	50	2
TOTAL		10	3	9	210	340	550	17.5

Semester -II

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTCEBSC 201	Chemistry –I	3	1	0	30	70	100	4
BTCEBSC202	Mathematics-II (Differential Equations)	3	1	0	30	70	100	4
BTCEESC203	Programming for Problem Solving	3	0	0	30	70	100	3
BTCEESC204	Workshop /Manufacturing Practices	1	0	0	30	70	100	1
BTCEHSMC205	English	2	0	0	30	70	100	2
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTCEESC 206	Chemistry –I Lab	-	-	3	30	20	50	1.5
BTCEESC207	Programming for Problem solving Lab	-	-	4	30	20	50	2
BTCEECS208	Workshop/Manufacturing Practices Lab	-	-	4	30	20	50	2
BTCEHSMC209	English Lab	-	-	2	30	20	50	1
TOTAL		12	2	13	270	430	700	20.5

Semester -III

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTCEESC 301	Basic Electronics	1	0	0	30	70	100	1
BTCEBSC302	Biology for Engineers	2	0	0	30	70	100	2
BTCEESC303	Computer-aided Civil Engineering Drawing	1	0	0	30	70	100	1
BTCEESC304	Engineering Mechanics	3	1	0	30	70	100	4
BTCEESC305	Energy Science & Engineering	1	1	0	30	70	100	2
BTCEBSC306	Life Science	1	0	0	30	70	100	1
BTCEBSC307	Mathematics-III (Transform & Discrete Mathematics)	2	0	0	30	70	100	2
BTCEHSMC308	Humanities-I (Effective Technical Communication)	3	0	0	30	70	100	3
BTCEHSMC309	Introduction to Civil Engineering	2	0	0	30	70	100	2
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTCEESC310	Basic Electronics	-	-	2	30	20	50	1
BTCEBSC311	Biology for Engineers	-	-	2	30	20	50	1
BTCEESC312	Computer-aided Civil Engineering Drawing	-	-	2	30	20	50	1
BTCEBSC313	Life Science	-	-	2	30	20	50	1
TOTAL		16	2	8	390	710	1100	22

Semester -IV

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTCEESC401	Mechanical Engineering	2	1	0	30	70	100	3
BTCEPCC402	Instrumentation & Sensor Technologies for Civil Engineering Applications	1	1	0	30	70	100	2
BTCEPCC403	Engineering Geology	1	0	0	30	70	100	1
BTCEPCC404	Disaster Preparedness & Planning	1	1	0	30	70	100	2
BTCEPCC405	Introduction to Fluid Mechanics	2	0	0	30	70	100	2
BTCEPCC406	Introduction to Solid Mechanics	2	0	0	30	70	100	2
BTCEPCC407	Surveying & Geomatics	1	1	0	30	70	100	2
BTCEPCC408	Materials, Testing & Evaluation	1	1	0	30	70	100	2
BTCEHSM409	Civil Engineering - Societal & Global Impact	2	0	0	30	70	100	2
BTCEMC410	Management I (Organizational Behavior)	3	0	0	30	70	100	0*
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTCEPCC 411	Instrumentation & Sensor Technologies for Civil Engineering Applications	-	-	2	30	20	50	1
BTCEPCC 412	Engineering Geology	-	-	2	30	20	50	1
BTCEPCC 413	Introduction to Fluid Mechanics	-	-	2	30	20	50	1
BTCEPCC414	Surveying & Geomatics	-	-	2	30	20	50	1
BTCEPCC415	Materials, Testing & Evaluation			2	30	20	50	1
TOTAL		16	3	10	450	800	1250	23

Semester -V

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTCEPCC501	Mechanics of Materials	3	0	0	30	70	100	3
BTCEPCC502	Hydraulic Engineering	2	0	0	30	70	100	2
BTCEPCC503	Structural Engineering	2	1	0	30	70	100	3
BTCEPCC504	Geotechnical Engineering	2	0	0	30	70	100	2
BTCEPCC505	Hydrology & Water Resources Engineering	2	2	0	30	70	100	3
BTCEPCC506	Environmental Engineering	2	2	0	30	70	100	3
BTCEPCC507	Transportation Engineering	2	0	0	30	70	100	2
BTCEHSMC508	Professional Practice, Law & Ethics	2	0	0	30	70	100	2
BTCEMC509	Constitution of India/ Essence of Indian Traditional Knowledge	0	0	0	30	70	100	0*
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTCEPCC 510	Hydraulic Engineering	-	-	2	30	20	50	1
BTCPCC 511	Geotechnical Engineering	-	-	2	30	20	50	1
BTCEPCC512	Transportation Engineering	-	-	2	30	20	50	1
TOTAL		16	3	10	450	800	1250	23

Semester -VI

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTCEPCC601	Construction Engineering & Management	2	1	0	30	70	100	3
BTCEPCC602	Engineering Economics, Estimation & Costing	2	1	0	30	70	100	3
BTCEEL603	Urban Transportation Planning	3	0	0	30	70	100	3
BTCEEL604	Repairs & Rehabilitation of Structures	3	0	0	30	70	100	3
BTCEOEL605	Open Elective-I (Soft Skills and Interpersonal Communication)	3	0	0	30	70	100	3
BTCEEL606	Air and Noise Pollution and Control	3	0	0	30	70	100	3
BTCEEL607	River Engineering	3	0	0	30	70	100	3
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTCEPCC 608	Engineering Economics, Estimation & Costing	-	-	4	30	20	50	2
TOTAL		19	2	4	240	510	750	23

Semester -VII

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTCEEL701	Surface Hydrology	3	0	0	30	70	100	3
BTCEEL702	Design of Concrete Structures	3	0	0	30	70	100	3
BTCEOEL703	Open Elective-II Suggested (Metro Systems & Engineering)	3	0	0	30	70	100	3
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTCE PROJ 704	Project-I (Project work, seminar and internship in industry or at appropriate work place)	-	-	12	30	20	50	6
TOTAL		9	0	12	120	230	350	15

Semester –VIII

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTCEEL801	Rock Mechanics	3	0	0	30	70	100	3
BTCEEL802	Design of Steel Structures	2	0	0	30	70	100	2
BTCEOEL803	Open Elective-III (Cyber Law and Ethics)	3	0	0	30	70	100	3
BTCEOEL804	Open Elective-IV (Human Resource Development and Organizational Behavior)	2	0	0	30	70	100	2
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTCE PROJ 805	Project-2 (Continued from VII Semester, Project work, seminar and internship in industry or at appropriate work place)	-	-	12	30	20	50	6
TOTAL		10	0	12	150	300	450	16