

**B.Tech. INFORMATION TECHNOLOGY
Regulations 2019 (R)**

Semester I

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
THEORY								
		Induction Program	-	-	-	-	-	-
1	R19MA101	Matrix Algebra and Calculus	BS	4	3	1	0	4
2	R19CY101	Engineering Chemistry	BS	3	3	0	0	3
3	R19CS101	Problem Solving using C	ES	3	3	0	0	3
4	R19CS104	Application Design and Development	ES	4	2	2	0	4
THEORY CUM PRACTICAL								
5	R19HS151	Technical English	HS	4	2	0	2	3
PRACTICALS								
6	R19CY111	Chemistry Laboratory	BS	2	0	0	2	1
7	R19GE111	Engineering Practices Laboratory	ES	4	0	0	4	2
8	R19CS111	Problem Solving using C Laboratory	ES	4	0	0	4	2
PROFESSIONAL DEVELOPMENT								
9	R19EM101	Soft Skills	EM	2	0	0	2	1
Total				30	13	3	14	23

Semester II

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
THEORY								
1	R19MA102	Advanced Calculus and Complex Variables	BS	4	3	1	0	4
2	R19PH201	Physics for Information Science	BS	3	3	0	0	3
3	R19EC102	Electronics and Microprocessors	ES	3	3	0	0	3
4	R19CS201	Data Structures	PC	3	3	0	0	3
THEORY CUM PRACTICAL								
5	R19HS11X	Language Elective	HS	4	2	0	2	3
6	R19CS151	Python Programming	ES	5	3	0	2	4
PRACTICALS								
7	R19PH111	Physics Laboratory	BS	2	0	0	2	1
8	R19CS211	Data Structures Laboratory	PC	4	0	0	4	2
MANDATORY COURSE								
9	R19MC101	தமிழர் மரபு/Heritage of Tamils	MC	1	1	0	0	1
Total				29	18	1	10	24

Semester III

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
THEORY								
1	R19MA203	Discrete Mathematics	BS	4	3	1	0	4
2	R19CS202	Database Management Systems	PC	3	3	0	0	3
3	R19CS203	Object Oriented Programming using Java	PC	3	3	0	0	3
4	R19CS205	Design and Analysis of Algorithms	PC	3	3	0	0	3
THEORY CUM PRACTICAL								
5	R19EC252	Digital Principles and Computer Organization	PC	5	3	0	2	4
6	R19IT251	Software Engineering	PC	4	2	0	2	3
PRACTICALS								
7	R19CS212	Database Management Systems Laboratory	PC	2	0	0	2	1
8	R19CS213	Object Oriented Programming using Java Laboratory	PC	2	0	0	2	1
9	R19CS215	Design and Analysis of Algorithms Laboratory	PC	4	0	0	4	2
PROFESSIONAL DEVELOPMENT								
10	R19EM201	Logical Thinking	EM	2	0	0	2	1
MANDATORY COURSE								
11	R19MC102	தமிழரும் தொழில்நுட்பமும் /Tamil and Technology	MC	1	1	0	0	1
Total				33	18	1	14	26

Semester IV

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
THEORY								
1	R19MA206	Probability and Statistics	BS	4	3	1	0	4
2	R19IT201	Operating Systems and Virtualization	PC	3	3	0	0	3
3	R19CS206	Full Stack Development	PC	3	3	0	0	3
THEORY CUM PRACTICAL								
4	R19EC352	Embedded Systems and IoT	ES	5	3	0	2	4
5	R19AD251	Data Science	PC	5	3	0	2	4
PRACTICALS								
6	R19CS216	Full Stack Development Laboratory	PC	2	0	0	2	1
7	R19IT211	Operating Systems and Virtualization Laboratory	PC	2	0	0	2	1
PROJECT WORK								
8	R19IT281	Project using Design Thinking, (Software/Product Development Cycle)	PW	2	0	0	2	1
PROFESSIONAL DEVELOPMENT								
9	R19EM202	Advanced Logical Thinking	EM	2	0	0	2	1
	R19EM203	Summer Internship	EM	-	-	-	-	NC
MANDATORY COURSE								
	R19MC202	Indian Constitution and Tradition	MC	1	1	0	0	NC
Total				29	16	1	12	22

* Open Elective - L T P C for Open Electives can either be 3 0 0 3(or) 2 0 2 3

Semester V

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
THEORY								
1	R19IT301	Theory of Computation	PC	4	3	1	0	4
2	R19IT302	Cloud Computing	PC	3	3	0	0	3
3	R19AD201	Artificial Intelligence	PC	3	3	0	0	3
4	R19XXXXX	Professional Elective I	PE	3	3	0	0	3
5	R19OXXXX	Open Elective I*	OE	3	3	0	0	3
THEORY CUM PRACTICAL								
6	R19IT351	Data Communications and Networking	PC	5	3	0	2	4
PRACTICALS								
7	R19IT311	Cloud Computing Laboratory	PC	2	0	0	2	1
8	R19AD211	Artificial Intelligence Laboratory	PC	2	0	0	2	1
MANDATORY COURSE								
	R19MC201	Environmental Science	MC	1	1	0	0	NC
Total				26	19	1	6	22

Semester VI

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
THEORY								
1	R19AM301	Machine Learning	PC	3	3	0	0	3
2	R19IT303	Cryptography and Cyber Security	PC	3	3	0	0	3
3	R19XXXXX	Professional Elective II*	PE	3	3	0	0	3
4	R19XXXXX	Professional Elective III*	PE	3	3	0	0	3
THEORY CUM PRACTICAL								
5	R19AD351	Big Data Analytics	PC	5	3	0	2	4
PRACTICALS								
6	R19AM311	Machine Learning Laboratory	PC	2	0	0	2	1
7	R19IT312	Cyber Security Laboratory	PC	2	0	0	2	1
PROJECT WORK								
8	R19IT381	Innovative / Multi-Disciplinary Project	PW	2	0	0	2	1
Total				23	15	0	8	19

* Open Elective - L T P C for Open Electives can either be 3 0 0 3 or 2 0 2 3

Semester VII

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
THEORY								
1	R19HS401	Principles of Management and Professional Ethics	HS	3	3	0	0	3
2	R19XXXXX	Professional Elective IV	PE	3	3	0	0	3
3	R19XXXXX	Professional Elective V	PE	3	3	0	0	3
THEORY CUM PRACTICAL								
4	R19IT451	Block Chain Technologies	PC	5	3	0	2	4
PROJECT WORK								
5	R19IT481	Project Work- Phase I	PW	6	0	0	6	3
Total				20	12	0	8	16

Semester VIII

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
THEORY								
1	R19OXXXX	Open Elective II*	OE	3	3	0	0	3
PROJECT WORK								
2	R19IT482	Project Work-Phase II	PW	16	0	0	16	8
Total				19	3	0	16	11

* Open Elective – L T P C for Open Electives can either be 3 0 0 3 (or) 2 0 2 3

Total Number of Credits:163

SUMMARY

Sl. No.	Course Category	Credits per Semester								Credits	Credit %
		I	II	III	IV	V	VI	VII	VIII		
1	HS	3	3	-	-	-	-	3	-	9	5.52
2	BS	8	8	4	4	-	-	-	-	24	14.72
3	ES	11	7	4	4	-	-	-	-	26	15.95
4	PC	-	5	16	12	16	12	4	-	65	39.87
5	PE	-	-	-	-	3	6	6	-	15	9.20
6	OE	-	-	-	-	3	-	-	3	6	3.68
7	PW	-	-	-	1	-	1	3	8	13	7.97
8	EM	1	-	1	1	-	-	-	-	3	1.84
9	NC	-	-	-	-	-	-	-	-	-	-
10	MC	-	1	1	✓	✓	-	-	-	2	1.22
Total		23	24	26	22	22	19	16	11	163	100