



Syllabus: B. Tech. in Information Technology

Third Semester							
Sl. No.	Category	Course Code	Course Name	Contact Hours			Credits
				L	T	P	
1	Engineering Science	RCC-ESC-IT-301	Digital Electronics	3	0	0	3
2	Professional Core	RCC-PCC-IT-302	Data Structures	3	1	0	4
3	Professional Core	RCC-PCC-IT-303	Object Oriented Programming	3	1	0	4
4	Humanities & Social Science	RCC-HSMC-IT-301	Economics for Engineers (Humanities-II)	3	0	0	3
5	Audit/Mandatory	RCC-AU-IT-381	Environmental Science	2	0	0	0
6	Engineering Science	RCC-ESC-IT-391	Digital Electronics	0	0	4	2
7	Professional Core	RCC-PCC-IT-392	Data Structures Lab	0	0	4	2
8	Professional Core	RCC-PCC-IT-393	Object Oriented Programming Lab	0	0	4	2
9	Engineering Science	RCC-ESC-IT-394	Design and Thinking Lab	0	0	4	2
Total							22
Fourth Semester							
Sl. No.	Category	Course Code	Course Name	Contact Hours			Credits
				L	T	P	
1	Professional Core	RCC-PCC-IT-401	Operating Systems	3	0	0	3
2	Professional Core	RCC-PCC-IT-402	Database Management System	3	1	0	4
3	Professional Core	RCC-PCC-IT-403	Software Engineering	3	0	0	3
4	Professional Core	RCC-PCC-IT-404	Data Science	3	0	0	3
5	Humanities & Social Science	RCC-HSMC-IT-401	Introduction to Industrial Management (Humanities-III)	3	1	0	4
6	Audit/Mandatory	RCC-AU-IT-481	Soft Skills & Ethics	2	0	0	0
7	Professional Core	RCC-PCC-IT-491	Operating Systems Lab	0	0	4	2
8	Professional Core	RCC-PCC-IT-492	Database Management System Lab	0	0	4	2
9	Professional Core	RCC-PCC-IT-493	Software Engineering Lab	0	0	4	2
Total							23



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Fifth Semester							
Sl. No.	Category	Course Code	Course Name	Contact Hours			Credits
				L	T	P	
1	Professional Core	RCC-PCC-IT-501	Computer Networks	3	0	0	3
2	Professional Core	RCC-PCC-IT-502	Machine Learning	3	0	0	3
3	Professional Core	RCC-PCC-IT-503	Design & Analysis of Algorithms	3	0	0	3
4	Professional Core	RCC-PCC-IT-504	Artificial Intelligence	3	0	0	3
5	Basic Science	RCC-BSC-IT-505	Numerical Methods	3	0	0	3
6	Professional Core	RCC-PCC-IT-591	Computer Networks Lab	0	0	4	2
7	Professional Core	RCC-PCC-IT-592	Machine Learning Lab	0	0	4	2
8	Professional Core	RCC-PCC-IT-593	Design & Analysis of Algorithms Lab	0	0	4	2
9	Project	RCC-PROJ-IT-581	Micro Project	0	0	4	2
Total							23
Sixth Semester							
Sl. No.	Category	Course Code	Course Name	Contact Hours			Credits
				L	T	P	
1	Professional Core	RCC-PCC-IT-601	Cloud Computing	3	1	0	4
2	Professional Core	RCC-PCC-IT-602	Data Warehousing	3	0	0	3
3	Professional Core	RCC-PCC-IT-603	Research Methodology	2	0	0	2
4	Professional Elective	RCC-PEC-IT-601	A. Information Theory and Coding B. Internet Technology C. Image Processing	3	0	0	3
5	Open Elective	RCC-OEC-IT-601	A. Multimedia Technology B. Computer Graphics C. E-Commerce and ERP	3	0	0	3
6	Humanities & Social Science	RCC-HSMC-IT-601	Project Management and Entrepreneurship	2	0	0	2
7	Professional Core	RCC-PCC-IT-691	Cloud Computing Lab	0	0	4	2
8	Professional Core	RCC-PCC-IT-692	Data Warehousing Lab	0	0	4	2
9	Project	RCC-PROJ-IT-681	Mini Project	0	0	4	2
Total							23



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Seventh Semester							
Sl. No.	Category	Course Code	Course Name	Contact Hours			Credits
				L	T	P	
1	Professional Elective	RCC-PEC-IT-701	A. Cryptography B. Language Processor C. Deep Learning	3	0	0	3
2	Professional Elective	RCC-PEC-IT-702	A. Cyber Law & Ethics B. Mobile Computing C. Big Data Analytics	3	0	0	3
3	Open Elective	RCC-OEC-IT-701	A. Human Resource Development and Organizational Behavior B. Introduction to Philosophical Thoughts C. Soft Skills & Interpersonal Communications	3	0	0	3
4	Open Elective	RCC-OEC-IT-702	A. Robotics B. VLSI Design C. Nano-technology	3	0	0	3
5	Project	RCC-PROJ-IT-781	Industrial Training & Seminar	0	0	4	2
6	Project	RCC-PROJ-IT-782	Project – Pre-Final	0	0	4	2
Total							16
Eighth Semester							
Sl. No.	Category	Course Code	Course Name	Contact Hours			Credits
				L	T	P	
1	Professional Elective	RCC-PEC-IT-801	A. Data Security B. Edge Computing & IOT C. Generative AI	3	0	0	3
2	Open Elective	RCC-OEC-IT-801	A. Distributed Operating System B. Computer Architecture C. Distributed DBMS	3	0	0	3
3	Project	RCC-PROJ-IT-881	Project - Final	0	0	20	10
Total							16