

B.Tech (Computer Science and Engineering-Core)

SEMESTER: III

COURSE MODULE				TEACHING PERIODS			Contact Hours	WEIGHTAGE : EVALUATION			
COURSE			Credits	L	T	P		CIE	MSE	ESE	Total
Code	Title	Component									
TCS-308	Logic Design and Computer Organization	DSC	3	3	-	-	3	25	25	50	100
TCS-302	Data Structures with C	DSC	3	3	-	-	3	25	25	50	100
TCS-307	Object Oriented Programming with C++	DSC	3	3	-	-	3	25	25	50	100
	Discipline Specific Elective-I	DSE	3	3	-	-	3	25	25	50	100
TMA-316	Discrete Structures and Combinatorics	DSC	3	3	-	-	3	25	25	50	100
PCS-308	Logic Design and Computer Organization Lab	DSC	1	-	-	2	2	25	25	50	100
PCS-302	Data Structures Lab	DSC	1	-	-	2	2	25	25	50	100
PCS-307	OOPS with C++ Lab	DSC	1	-	-	2	2	25	25	50	100
XCS-301	Career Skills-I	SEC	1	1	-	-	1	25	25	50	100
XCS-310	Career Skills Lab-I	SEC	1	-	-	2	2	25	25	50	100
CSP-301	Mini Project	AEC	1	-	-	-	-	-	-	100	100
SCS-301	MOOCS Seminar	VAC	1	-	-	-	-	-	-	100	100
GP-301	General Proficiency	SEC	1	-	-	-		100	-	-	100
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NOTE:

General Proficiency shall be assessed based on the participation in NCC, NSS, Conferences (Research paper Publication (Journal/ Conference)), Organizing events, competitions (Inter-University, State, National, International level) including Music, Debate, Sports, Hackathon and so on)

DISCIPLINE SPECIFIC ELECTIVE-I

COURSE CODE	COURSE NAME
TCS-351	Fundamental of Cloud Computing and Bigdata
TCS-392	Introduction to Cryptography
TCS-331	Fundamental of IoT
TCS-346	Python Programming
TCS-332	Fundamentals of Information Security and Block Chain
TCS-361	Joy of Computing using Python (Through Swayam)

SEMESTER: V

COURSE MODULE				TEACHING PERIODS			Contact Hours	WEIGHTAGE:EVALUATION			
COURSE			Credits	L	T	P		CIE	MSE	SEE	Total
Code	Title	Component									
TCS-509	Machine Learning	DC	3	3	-	-	3	25	25	50	100
TCS-502	Operating Systems	DC	3	3	-	-	3	25	25	50	100
TCS-503	Data Base Management Systems	DC	3	3	-	-	3	25	25	50	100
TMA-502	Computer Based Numerical and Statistical techniques	DC	3	3	-	-	3	25	25	50	100
	Discipline Specific Elective-III	DE/GE	3	3	-	-	3	25	25	50	100
PCS-506	Operating Systems Lab	DC	2	1	-	2	2	25	25	50	100
PCS-503	DBMS Lab	DC	2	1	-	2	2	25	25	50	100
PMA-502	CBNST Lab	DC	2	1	-	2	2	25	25	50	100
XCS-501	Career Skills	VA	1	1	-	-	1	25	25	50	100
XCS-510	Career Skills Lab	VA	1	-	-	1	1	25	25	50	100
CSP-501	Mini Project	AE	1	-	-	-		-	-	100	100
SCS-501	MOOCS Seminar		1	-	-	-		-	-	100	100
GP-501	General Proficiency	SE	1	-	-	-		-	-	100	100

DISCIPLINE SPECIFIC ELECTIVE-III

COURSE CODE	COURSE NAME
TCS-552	Cloud Based Application Development and Management
TCS-531	Communication Model and Protocols
TCS-548	Computer Vision
TCS-591	Computer System security
TCS-592	Deep Learning Fundamentals
TCS-565	Android Mobile Application Development (Through Swayam)
TCS-566	Cognition and its Computation (Through Swayam)
TCS-561	Artificial Intelligence: Search Methods for Problem Solving (Through Swayam)
TCS-567	Cyber Security, Tools, Techniques and Counter Measures (Through Swayam)

SEMESTER: VII

COURSE MODULE				TEACHING PERIODS			Contact Hours	WEIGHTAGE:EVALUATION			
COURSE			Credits	L	T	P		CWA	MSE	ESE	Total
Code	Title	Component									
TIT-704	Cryptography and Network Security	CC	3	3	-	-	3	25	25	50	100
TCS-703	Computer Networks-II	CC	3	3	-	-	3	25	25	50	100
TCS-704	Advanced Computer Architecture	CC	3	3	-	-	3	25	25	50	100
	Elective-V	CC	3	3	-	-	3	25	25	50	100
TCS-756	Human computer Interaction	DE/ IE	3	3	-	-	Online	25	25	50	100
SCS-701	Seminar on Industrial Interaction	SM	1	-	-	-		-	-	100	100
CSP-701	Major Project- Phase 1	PJ	2	-	-	-		-	-	100	100
GP-701	General Proficiency	GP	1	-	-	-		-	-	100	100
Total			19	15	-	-		125	125	550	800

ELECTIVE-V

COURSE CODE	COURSE NAME
TCS-706	Artificial Intelligence
TCS-744	Fundamentals of Artificial intelligence (Through Swayam)
TCS-548	Advanced Distributed Systems (Though Swayam)

SEMESTER: VII

COURSE MODULE				TEACHING PERIODS			Contact Hours	WEIGHTAGE:EVALUATION			
COURSE			Credits	L	T	P		CWA	MSE	ESE	Total
Code	Title	Component									
TIT-704	Cryptography and Network Security	CC	3	3	-	-	3	25	25	50	100
TCS-703	Computer Networks-II	CC	3	3	-	-	3	25	25	50	100
TCS-704	Advanced Computer Architecture	CC	3	3	-	-	3	25	25	50	100
TCS-756	Human Computer Interaction	CC	3	3	-	-	Online	25	25	50	100
	Elective-V	DE/ IE	3	3	-	-	3	25	25	50	100
SCS-701	Seminar on Industrial Interaction	SM	1	-	-	-		-	-	100	100
CSP-701	Major Project- Phase 1	PJ	2	-	-	-		-	-	100	100
GP-701	General Proficiency	GP	1	-	-	-		-	-	100	100
	Total		19	15	-	-		125	125	550	800

ELECTIVE-V

Course Code	Course Name
TCS-731	Computer Forensics (Cyber Security)
TCS-735	Practical Cyber Security for Cyber Security Practitioners (Through Swayam) (Cyber Security)
TCS-722	Data warehousing and Data Mining (Cloud Computing, AI/ML)
TCS-737	Advanced Distributed Systems (Through Swayam) (Cloud Computing)
TCS-739	Applied Accelerated Artificial Intelligence (Through Swayam) (AI/ML)

SEMESTER: VII

COURSE MODULE				TEACHING PERIODS			WEIGHTAGE : EVALUATION				
COURSE			Credits	L	T	P	Contact Hours	CIE	MSE	ESE	Total
Code	Title	Component									
IBTCS-309	Computer Organization	DSC	3	3	-	-	3	25	25	50	100
IBTCS-302	Data Structures with C	DSC	3	3	-	-	3	25	25	50	100
IBTCS-307	Object Oriented Programming with C++	DSC	3	3	-	-	3	25	25	50	100
	Discipline Specific Elective	DSE	3	3	-	-	3	25	25	50	100
IBTMA-316	Discrete Structures and Combinatorics	DSC	3	3	-	-	3	25	25	50	100
IBPCS-302	Data Structures Lab	DSC	1	-	-	2	2	25	25	50	100
IBPCS-307	OOPS with C++ Lab	DSC	1	-	-	2	2	25	25	50	100
IBXCS-301	Career Skills	SEC	1	1	-	-	1	25	25	50	100
IBXCS-310	Career Skills Lab	SEC	1	-	-	2	2	25	25	50	100
IBCSP-301	Mini Project	AEC	1	-	-	-	-	-	-	100	100
IBSCS-301	MOOCS Seminar	VAC	1	-	-	-	-	-	-	100	100
GP-701	General Proficiency	SEC	1	-	-	-	-	100	-	-	100
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DISCIPLINE SPECIFIC ELECTIVE

COURSE CODE	COURSE NAME
TCS-351	Fundamental of Cloud Computing and Bigdata
TCS-392	Introduction to Cryptography
TCS-361	Introduction to Internet of Things (Through Swayam)