

## CURRICULUM

G: General programme comprising language/communication skills, humanities and social sciences, economics and principles of management, and NSS/NCC/NSO/rural development.

B: Basic sciences comprising Computer Literacy with Numerical Analysis, Mathematics, Physics, and Chemistry.

E: Engineering Sciences and Technical Arts comprising Engineering Graphics, Workshop Practice, Basic Engineering, etc.

P: Professional courses corresponding to the Branch of Studies, which will include core courses, electives, and project work.

COURSE CODE	CATEGORY	COURSE NAME	L	T	P	C
<b>SEMESTER I</b>						
15LE101	G	English	2	0	0	2
15PD101	G	Soft Skills I	1	1	0	1
15MA101	B	Calculus And Solid Geometry	3	1	0	4
15PY101	B	Physics	3	0	0	3
15PY101L	B	Physics Laboratory	0	0	2	1
15CY101	B	Chemistry	3	0	0	3
15CY101L	B	Chemistry Laboratory	0	0	2	1
15BT101	B	Biology For Engineers	2	0	0	2
15CE101	E	Basic Civil Engineering	2	0	0	2
15EE101	E	Basic Electrical Engineering	2	0	0	2
15ME105L	E	Engineering Graphics	1	0	4	3
15CS101L	E	Programming Laboratory	1	0	2	2
<b>SEMESTER II</b>						
15LE102	G	Value Education	2	0	0	2
15PD102	G	Soft Skills II	1	1	0	1
15NC101	G	NCC- National Cadet Corps	0	0	1	1
15NS101	G	NSS- National Service Scheme	0	0	1	1
15SP101	G	NSO- National Sports Organization	0	0	1	1
15YG101	G	Yoga	0	0	1	1
15MA102	B	Advanced Calculus And Complex Analysis	3	1	0	4
15PY102L	B	Material Science	2	0	2	3
15CY102	B	Principles Of Environmental Science	2	0	0	2
15ME101	E	Basic Mechanical Engineering	2	0	0	2
15EC101	E	Basic Electronics Engineering	2	0	0	2
15IT101L	E	Computer Hardware and Troubleshooting Laboratory	0	0	3	2
15IT102	P	Program Design And Development	3	0	0	3
15IT102L	P	Program Design And Development Laboratory	0	0	2	1
<b>SEMESTER III</b>						
15LE201E	G	German Language I	2	0	0	2
15LE202E	G	French Language I	2	0	0	2
15LE203E	G	Japanese Language I	2	0	0	2

COURSE CODE	CATEGORY	COURSE NAME	L	T	P	C
15LE204E	G	Korean Language I	2	0	0	2
15LE205E	G	Chinese Language I	2	0	0	2
15PD201	G	Quantitative Aptitude & Logical Reasoning –I	1	1	0	1
15MA203	B	Discrete Mathematics for Information Technology	4	0	0	4
15EC252	E	Principles of Communication systems	3	0	0	3
15IT213	P	IT Fundamentals	2	0	0	2
15CS201J	P	Data Structures	3	0	2	4
15SE201J	P	Object Oriented Programming Using C++	3	0	2	4
15IT212J	P	Computer Organisation And Architecture	3	0	2	4
<b>SEMESTER IV</b>			2	0	0	2
15LE207E	G	German Language II	2	0	0	2
15LE208E	G	French Language II	2	0	0	2
15LE209E	G	Japanese Language II	2	0	0	2
15LE210E	G	Korean Language II	2	0	0	2
15LE211E	G	Chinese Language II	2	0	0	2
15PD202	G	Verbal Aptitude	1	1	0	1
15IT214	G	Professional Ethics	2	0	0	2
15MA207	B	Probability And Queuing Theory	4	0	0	4
15SE205J	P	Programming in Java	3	0	2	4
15CS204J	P	Algorithm Design And Analysis	3	0	2	4
15CS205J	P	Microprocessors And Microcontrollers	3	0	2	4
15SE203	P	Object Oriented Analysis And Design	2	2	0	3
<b>SEMESTER V</b>						
15PD301	G	Communication & Reasoning Skills	1	1	0	1
15IT314J	P	Principles of Operating Systems	3	0	2	4
15IT311	P	System Integration And Architecture	3	0	0	3
15IT303J	P	Computer Networks	3	0	2	4
15IT302J	P	Database Management Systems	3	0	2	4
15IT375L / 15IT380L / 15IT385L / 15IT490L	P	Minor Project I / Seminar I / MOOCS I / Industrial Module I	0	0	3	2
15IT390L	P	Industrial Training (To be done after IV semester)	0	0	3	2
	P	Dept. Elective - I	3	0	0	3
	P	Open Elective - I	3	0	0	3
<b>SEMESTER VI</b>						
15PD302	G	Quantitative Aptitude & Logical Reasoning –II	1	1	0	2

COURSE CODE	CATEGORY	COURSE NAME	L	T	P	C
15MA305	B	Statistics for Information Technology	4	0	0	4
15IT304J	P	Web Programming	3	0	2	4
15IT313J	P	Network Protocols And Programming	3	0	2	4
15IT321	P	Human Computer Interaction	2	0	0	2
15IT376L / 15IT381L / 15IT386L / 15IT491L	P	Minor Project II / Seminar II / MOOCS II / Industrial Module II	0	0	3	2
	P	Dept. Elective – II	3	0	0	3
	P	Dept. Elective - III	3	0	0	3
	P	Open Elective - II	3	0	0	3
<b>SEMESTER VII</b>						
15IT411J	P	Integrative Programming And Technology	3	0	2	4
15IT412	P	Information Assurance And Security	3	0	0	3
15IT413	P	IT Infrastructure Management	3	0	0	3
15IT415M	P	Multi Disciplinary Design	3	0	0	3
	P	Dept. Elective – IV	3	0	0	3
	P	Dept. Elective - V	3	0	0	3
<b>SEMESTER VIII</b>						
15IT496L	P	Major Project	0	0	24	12
<b>ELECTIVES</b>						
15IT322E	P	Python Programming	2	2	0	3
15IT323E	P	Game Programming	2	2	0	3
15IT324E	P	Mobile Application Development	2	2	0	3
15IT326E	P	Cloud Computing	3	0	0	3
15IT327E	P	Cryptography	3	0	0	3
15IT328E	P	Parallel Programming Using OpenCL	3	0	0	3
15IT329E	P	Database Administration	2	2	0	3
15IT330E	P	Text Mining	3	0	0	3
15IT331E	P	Computer Graphics	2	2	0	3
15IT332E	P	Software Testing	3	0	0	3
15IT340E	P	Data Warehousing And Data Mining	3	0	0	3
15IT341E	P	Enterprise Resource Planning	3	0	0	3
15IT342E	P	Management Information Systems	3	0	0	3
15IT343E	P	Multimedia Tools And Applications	2	2	0	3
15IT344E	P	Digital Audio And Computer Music	3	0	0	3
15IT345E	P	Linux Internals	3	0	0	3
15IT355E	P	Computer Animation: Algorithms And Techniques	2	2	0	3
15IT356E	P	Data Compression	3	0	0	3
15IT357E	P	Engineering Economics And Financial Management	3	0	0	3

COURSE CODE	CATEGORY	COURSE NAME	L	T	P	C
15IT358E	P	Advanced Java Programming And Technology	2	2	0	3
15IT359E	P	Linux Administration	2	2	0	3
15IT360E	P	Fundamentals Of Virtualization	3	0	0	3
15IT361E	P	Internet Security And Computer Forencis	3	0	0	3
15IT362E	P	Information Storage and Management	3	0	0	3
15IT421E	P	Information And Network Security	3	0	0	3
15IT422E	P	Internet Of Things	2	2	0	3
15IT423E	P	Data Science And Big Data Analytics	2	2	0	3
15IT424E	P	Business Intelligence And Analytics	3	0	0	3
15IT426E	P	Parallel Architecture And Algorithms	3	0	0	3
15IT441E	P	Forencis And Incident Response	2	2	0	3
15IT443E	P	Multilayer Switching	3	0	0	3
15IT444E	P	Network Simulation And Modelling	3	0	0	3
15IT445E	P	Interactive Web Page Scripting	3	0	0	3
15IT446E	P	Programming Multimedia For The Web	2	2	0	3
15IT447E	P	Advanced Web Application Development	2	2	0	3
15IT448E	P	Cloud Application Development	2	2	0	3
15IT451E	P	Information Security	3	0	0	3
15IT452E	P	Introduction To Database Management Systems	3	0	0	3
15SE322E	P	E-Commerce	3	0	0	3
15SE329E	P	Visual Programming	2	2	0	3
15SE333E	P	Pervasive Computing	3	0	0	3
15SE427E	P	Wireless And Mobile Communication	3	0	0	3
15CS322E	P	Neuro Fuzzy And Genetic Programming	3	0	0	3
15CS323E	P	Distributed Computing	3	0	0	3
15CS324E	P	Machine Learning	3	0	0	3
15CS332E	P	Wireless Sensor Networks	3	0	0	3
15CS401	P	Artificial Intelligence	3	0	0	3
15CS421E	P	Natural Language Processing	3	0	0	3
15CS422E	P	Knowledge Based Decision Support Systems	3	0	0	3
15CS423E	P	Software Defined Networks	3	0	0	3
15CS424E	P	Semantic Web	3	0	0	3
15CS433E	P	Network Design And Management	3	0	0	3
<b>Courses customized to other Departments</b>						
15IT470E	P	Fundamentals of Big Data Analytics	3	0	0	3
15IT370E	P	Fundamentlas of Cloud Computing	3	0	0	3

COURSE CODE	CATEGORY	COURSE NAME	L	T	P	C
15IT371E	P	Computer Networking	3	0	0	3

Summary of Credits										
Category	I	II	III	IV	V	VI	VII	VIII	Total	%
G ( Excluding open and departmental electives)	3	4	3	5	1	1	0	0	17	8.33
B ( Excluding open and departmental electives)	14	9	4	4	0	4	0	0	35	19.44
E ( Excluding open and departmental electives)	9	6	3	0	0	0	0	0	18	10
P ( Excluding open and departmental electives)	0	4	14	15	15	10	13	0	71	39.44
P Project /Seminar /Intenship	0	0	0	0	4	2	0	12	18	10
Open Elective	0	0	0	0	3	3	0	0	6	3.33
Dep. Elective	0	0	0	0	3	6	6	0	15	8.33
Total	26	23	24	24	26	26	19	12	180	100

**TOTAL CREDITS TO BE EARNED FOR THE AWARD OF THE DEGREE: 180**