13. Courses of Study and Scheme of Assessment
ME COMPUTER SCIENCE AND ENGINEERING

(2015 REGULATIONS)
(Minimum No. of credits to be earned: 75*)

Course Code	Course Title	Hours/Week			Credits	Maximum Marks			CAT
		Lecture	Tutorial	Practical		CA	FE	Total	
I SEMESTER									
15ZC01	Mathematical Structures and Stochastic Processes	2	2	-	3	50	50	100	FC
15ZC02	Data Structures	2	2	-	3	50	50	100	FC
15ZC03	Database Design and Management	3	2	-	4	50	50	100	PC
15ZC04	Software Engineering Methodologies	3	2	-	4	50	50	100	PC
15ZC05	Advanced Computer Architecture	3	-	-	3	50	50	100	PC
15ZC51	Enterprise Computing Laboratory	-	-	4	2	100	-	100	PC
15ZC61	Industry Visit & Technical Seminar	-	-	2	1	100	-	100	EEC
Total 27 Hrs		**13**	**8**	**6**	**20**	**450**	**250**	**700**	
II SEMESTER									
15ZC06	Advanced Data Structures and Algorithms	3	2	-	4	50	50	100	PC
15ZC07	Operating Systems	3	-	-	3	50	50	100	PC
15ZC08	Theoretical Computer Science	3	-	-	3	50	50	100	PC
15ZC09	Advanced Computer Networks	3	-	-	3	50	50	100	PC
15ZC10	Embedded Systems	3	2	-	4	50	50	100	PC
15ZC__	Professional Elective 1#	2	-	2	3	50	50	100	PE
15ZC52	Software Development Laboratory	-	-	2	1	100	-	100	PC
Total 25 Hrs		**17**	**4**	**4**	**21**	**400**	**300**	**700**	
III SEMESTER									
15ZC__	Professional Elective 2	3	-	-	3	50	50	100	PE
15ZC__	Professional Elective 3	3	-	-	3	50	50	100	PE
15ZC__	Professional Elective 4	3	-	-	3	50	50	100	PE
15ZC__	Professional Elective 5	3	-	-	3	50	50	100	PE
15ZC__	Professional Elective 6	3	-	-	3	50	50	100	PE
15ZC53	Open Source Systems Laboratory	-	-	4	2	100	-	100	PC
15ZC71	Project Work I	-	-	6	3	100	-	100	EEC
Total 25 Hrs		**15**	**-**	**10**	**20**	**450**	**250**	**700**	
IV SEMESTER									
15ZC72	Project Work II	**-**	**-**	**28**	**14**	50	50	100	EEC
ELECTIVE THEORY COURSES(Six to be opted)									
Group - I									
15ZC21	Data Mining	2	-	2	3	50	50	100	PE
15ZC22	Big Data Analytics	2	-	2	3	50	50	100	PE
15ZC23	XML and Web Services	2	-	2	3	50	50	100	PE
15ZC24	Semantic Web Technology	2	-	2	3	50	50	100	PE
Group - II									
15ZC25	Compiler Design	3	-	-	3	50	50	100	PE
15ZC26	Machine Learning	3	-	-	3	50	50	100	PE
15ZC27	Evolutionary Computing Techniques	3	-	-	3	50	50	100	PE
15ZC28	Information Retrieval	3	-	-	3	50	50	100	PE
15ZC29	Natural Language Processing	3	-	-	3	50	50	100	PE
15ZC30	Advanced Databases	3	-	-	3	50	50	100	PE
15ZC31	Virtualization	3	-	-	3	50	50	100	PE
15ZC32	Cloud Computing	3	-	-	3	50	50	100	PE
15ZC33	Programming Paradigms	3	-	-	3	50	50	100	PE
15ZC34	Cryptography and Network Security	3	-	-	3	50	50	100	PE
15ZC35	Mobile Computing	3	-	-	3	50	50	100	PE
15ZC36	Wireless Sensor Networks	3	-	-	3	50	50	100	PE
15ZC37	Software Testing and Quality Assurance	3	-	-	3	50	50	100	PE
15ZC38	Internet of Things	3	-	-	3	50	50	100	PE
15ZC39	Professional Ethics	3	-	-	3	50	50	100	PE
15ZC40	Cloud Security	3	-	-	3	50	50	100	PE

***** Indicated is the minimum number of credits to be earned by a student.

To be taken from Elective Theory Courses under Group I

CAT – Category; FC – Foundation Course; PC – Professional Core; PE - Professional Elective

EEC – Employability Enhancement Course

SCIENCE ELECTIVES

15ID01	Micro Electro Mechanical Systems (MEMS)
15ID02	Sensors for Engineering Applications
15ID03	Laser Processing of Materials
15ID04	Plasma Technology
15ID05	Nanosensor and its Applications
15ID06	Nano Magnetism and Spintronics
15ID07	Corrosion Science and Engineering
15ID08	Instrumental Methods of Chemical Analysis
15ID09	Polymer Science and Technology
15ID10	Nanomaterials and Nanotechnology
15ID11	Thin Film Technology

HUMANITIES AND LANGUAGES ONE CREDIT COURSES

15OK01	Research Writing in Engineering Sciences
15OK02	Indian Ethos and Human Values
15OK03	Personality Development
15OK04	Financial Accounting and Cost Accounting