

### 13. Courses of Study and Scheme of Assessment M TECH INFORMATION TECHNOLOGY

(2015 REGULATIONS)  
(Minimum credits to be earned: 75)\*

Course Code	Course Title	Lectures/Week			Credits	Maximum Marks			CAT
		Lecture	Tutorial	Practical		CA	FE	Total	
<b>I SEMESTER</b>									
15NN01	Number Theory and Quantitative Techniques	2	2	-	3	50	50	100	FC
15NN02	Object Oriented Programming	2	2	-	3	50	50	100	FC
15NN03	Data Structures and Algorithms	3	-	-	3	50	50	100	PC
15NN04	Networking Technology	3	2	-	4	50	50	100	PC
15NN05	Database Technologies	3	2	-	4	50	50	100	PC
15NN51	Data Structures Laboratory	-	-	4	2	100	-	100	PC
15NN61	Industry Visit and Technical Seminar	-	-	2	1	100	-	100	EEC
	<b>Total 27 Hrs</b>	<b>13</b>	<b>8</b>	<b>6</b>	<b>20</b>	<b>450</b>	<b>250</b>	<b>700</b>	
<b>II SEMESTER</b>									
15NN06	Operating Systems	3	2	-	4	50	50	100	PC
15NN07	Data Mining	3	-	-	3	50	50	100	PC
15NN08	Cloud Computing	3	-	-	3	50	50	100	PC
15NN09	Software Engineering Methodologies	3	-	-	3	50	50	100	PC
15NN10	Mobile Computing	3	-	-	3	50	50	100	PC
15NN__	Professional Elective -1	3	-	-	3	50	50	100	PE
15NN52	Software Development Laboratory	-	-	4	2	100	-	100	PC
	<b>Total 24 Hrs</b>	<b>18</b>	<b>2</b>	<b>4</b>	<b>21</b>	<b>400</b>	<b>300</b>	<b>700</b>	
<b>III SEMESTER</b>									
15NN__	Professional Elective - 2	3	-	-	3	50	50	100	PE
15NN__	Professional Elective - 3	3	-	-	3	50	50	100	PE
15NN__	Professional Elective - 4	3	-	-	3	50	50	100	PE
15NN__	Professional Elective - 5	3	-	-	3	50	50	100	PE
15NN__	Professional Elective - 6	3	-	-	3	50	50	100	PE
15NN53	Application Development Laboratory	-	-	4	2	100	-	100	PC
15NN71	Project Work I	-	-	6	3	100	-	100	EEC
	<b>Total 25 Hrs</b>	<b>15</b>	<b>-</b>	<b>10</b>	<b>20</b>	<b>450</b>	<b>250</b>	<b>700</b>	
<b>IV SEMESTER</b>									
15NN72	Project Work II	-	-	28	14	50	50	100	EEC
<b>ELECTIVE THEORY COURSES (Six to be opted)</b>									
15NN21	XML and Web Services	3	-	-	3	50	50	100	PE
15NN22	Service Oriented Architecture	3	-	-	3	50	50	100	PE
15NN23	Cryptography and Network Security	3	-	-	3	50	50	100	PE
15NN24	Information Storage Management	3	-	-	3	50	50	100	PE
15NN25	Machine Learning	3	-	-	3	50	50	100	PE
15NN26	Evolutionary Computation	3	-	-	3	50	50	100	PE
15NN27	Big Data Analytics	3	-	-	3	50	50	100	PE
15NN28	Social Network Analysis	3	-	-	3	50	50	100	PE
15NN29	Agent Based Intelligent Systems	3	-	-	3	50	50	100	PE
15NN30	Semantic Web	3	-	-	3	50	50	100	PE
15NN31	Network Design	3	-	-	3	50	50	100	PE
15NN32	Wireless Networks	3	-	-	3	50	50	100	PE
15NN33	Internet of Things	3	-	-	3	50	50	100	PE
15NN34	Network Analysis	3	-	-	3	50	50	100	PE
15NN35	Distributed Systems	3	-	-	3	50	50	100	PE
15NN36	Open Source Systems	3	-	-	3	50	50	100	PE

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

**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