

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**Regular MCA**  
**Subjects and Teaching Scheme (W.E.F. Jan, 2017)**

**SEMESTER IV**

Subject Code	Subject Name	Teaching Scheme			Credits	Theory		Practical / VIVA		Total Marks	
		Theory	Tutorial	Practical		University Exam (ESE)	Mid-Term Exam (PA)	Mid-Term Practical / Viva (PA)	External Practical / Viva (ESE)	Theory	Practical / VIVA
<a href="#">3640001</a>	Basic Statistics	3	-	4	7	70	30	20	30	100	50
<a href="#">3640002</a>	Basic Computer Science-3(Computer Networking)	3	-	3	6	70	30	20	30	100	50
<a href="#">3640003</a>	Basic Computer Science-4(Software Engineering)	4	1	-	5	70	30	-	-	100	-
*****	Elective-3	3	-	3	6	70	30	20	30	100	50
*****	Elective-4	3	-	3	6	70	30	20	30	100	50
	Total	16	1	13	30	350	150	80	120	500	200

**Elective – III**

<a href="#">3640004</a>	Network Security
<a href="#">3640005</a>	Data Analytics with R
<a href="#">3640006</a>	Data Mining
<a href="#">3640008</a>	Image Processing
<a href="#">3640009</a>	Operations Research (OR)

**Elective – IV**

<a href="#">3640011</a>	Cyber Security & Forensics (CSF)
<a href="#">3640012</a>	Language Processing (LP)
<a href="#">3640013</a>	Function Programming with Java
<a href="#">3640014</a>	Advanced Python
<a href="#">3640015</a>	Android Programming