



Month	April	May	June	July
<b>Contents</b>	<b>Review Python I/ Review Python II/ Working with Functions</b>	<b>Working with Functions/File Handling</b>	<b>File Handling / Exception Handling</b>	<b>Data Structures</b>
<b>Learning Outcomes</b>	Students will be able to: <ul style="list-style-type: none"> <li>● Revise of Python topics covered in Class XI.</li> <li>● Describe functions and types of function.</li> <li>● Develop user defined functions.</li> </ul>	Students will be able to: <ul style="list-style-type: none"> <li>● Define variable scope, arguments and parameters.</li> <li>● Describe python libraries and how to create user defined libraries.</li> <li>● Explore file handling concepts.</li> </ul>	Students will be able to: <ul style="list-style-type: none"> <li>● Explain file and exception handling in python.</li> <li>● Generate files and handle the data.</li> <li>● Differentiate between types of files.</li> <li>● Implement file operations.</li> </ul>	Students will be able to: <ul style="list-style-type: none"> <li>● Classify different data structures used in python.</li> <li>● Implement stacks in python.</li> </ul>
<b>Skills</b>	Knowledge/ Remembering / Application	Knowledge/ Remembering / Application	Comprehend/ Application	Comprehend/Application/ Analysis
<b>Software</b>	Power Point	Python	Python	Python
<b>Competency skills based activity / Experiential learning</b>	Create programs in python.	Create programs in python.	Create programs in python.	Create programs in python.

**Assessment:** Class Response, Homework, Class Test and Practical Work.

Month	August/September	October	November/ December
Content	Database Concepts	Computer Networks I / Project	Computer Networks II / Project
<b>Learning Outcomes</b>	Students will be able to : <ul style="list-style-type: none"> <li>● Describe database concepts.</li> <li>● Install MYSQL.</li> <li>● Explain DDL, DML commands.</li> <li>● Implement SQL commands.</li> <li>● Generate a database and use commands to retrieve data.</li> <li>● Implement python connectivity with databases.</li> </ul>	Students will be able to : <ul style="list-style-type: none"> <li>● Explain the evolution of networking.</li> <li>● Define data communication terminologies, IP address and switching techniques.</li> <li>● Explain transmission media, network topologies and protocol.</li> <li>● Implement SQL and python concepts to create a project.</li> </ul>	Students will be able to : <ul style="list-style-type: none"> <li>● Explain working of network devices.</li> <li>● Classify the internetworking terms and concepts.</li> <li>● Implement SQL and python concepts to create a project.</li> </ul>
<b>Skills</b>	Comprehend/Application	Comprehend/Knowledge	Comprehend/Application/ Creation
<b>Software</b>	MYSQL, Power Point , Python	Power Point, MYSQL, Python	Power Point, MYSQL, Python
<b>Competency skills based activity / Experiential learning</b>	Create a database and apply SQL commands. Create a database and connect using python.	Create a major project based on MYSQL and python connectivity.	Create a major project based on MYSQL and python connectivity.

**Assessment:** Class Response, Homework, Class Test and Practical Work.