

O Level Syllabus

Module Code	Module	Learning Hours (Theory)	Learning Hours (Practical/ Tutorials/ Project)	Total Learning Hours
Semester I				
M1-R5	Information Technology Tools and Network Basics	48	72	120
M2-R5	Web Designing & Publishing	48	72	120
Semester II				
M3-R5	Programming and Problem Solving through Python	48	72	120
M4-R5	Internet of Things and its Applications	48	72	120
PR1-R5	Practical based on M1-R5, M2-R5 ,M3-R5 and M4-R5			
PJ1-R5	Project		40	40
Total		192	328	520

M1-R5 : Information Technology Tools and Network Basics

SI	Module Unit	Theory	Practical
1.	Introduction to Computer, Introduction to Operating System	8	12
2.	Word Processing	6	9
3.	Spreadsheet	8	12
4.	Presentation	6	9
5.	Introduction to Internet and WWW, E-mail, Social Networking and e-Governance Services	12	18
6.	Digital Financial Tools and Applications, Overview of FutureSkills& Cyber Security	8	12
Total		48	72

M2-R5 : Web Designing and Publishing

SI	Unit	Theory	Practical
1.	Introduction to Web Design and Editors, HTML Basics	14	21
2.	Cascading Style Sheets (CSS)	10	15
3.	CSS Framework	6	9
4.	JavaScript and Angular Js	10	15
5.	Photo Editor, Web Publishing and Browsing	8	12
Total		48	72

M3-R5: Programming and Problem Solving Through Python Language

Sl	Module Unit	Theory	Practical
1.	Introduction to Programming, Algorithm and Flowcharts to solve problems	8	12
2.	Introduction to Python, Operators, Expressions and Python Statements, Sequence data types	18	27
3.	Functions, File Processing, Modules	18	27
4.	NumPy Basics	4	6
Total		48	72

M4-R5 : Internet of Things and its Applications

Sl	Module Unit	Theory	Practical
1.	Introduction to IoT – Applications/Devices, Protocols and Communication Model	4	6
2.	Things and Connections	4	6
3.	Sensors, Actuators and Microcontrollers	8	12
4.	Building IoT Applications	20	30
5.	Security and Future of IoT Ecosystem	4	6
6.	Soft skills-Personality Development	8	12
Total		48	72