

**LESSON PLAN – 2022 - 2023**

<b>DISCIPLINE:CSE</b>	<b>SEMESTER:6TH</b>	<b>NAME OF THE TEACHING FACULTY: : MS SASMITA PANIGRAHI</b>
<b>SUBJECT:CNS</b>	<b>NO.OF DAYS/PER WEEK CLASS ALLOTTED:4</b>	<b>SEMESTER FROM DATE: 14/02/2023 TO DATE: 23/05/2023 NO.OF WEEKS:15</b>
<b>WEEK</b>	<b>CLASS DAY</b>	<b>THEORY/PRACTICAL TOPICS</b>
<b>1<sup>ST</sup></b>	<b>1<sup>ST</sup></b>	<b>Possible attacks on computers</b>
	<b>2<sup>ND</sup></b>	The need for security
	<b>3<sup>RD</sup></b>	Security approach
	<b>4<sup>TH</sup></b>	Principles of security
<b>2<sup>ND</sup></b>	<b>1<sup>ST</sup></b>	Types of attacks
	<b>2<sup>ND</sup></b>	<b>Cryptography concepts</b>
	<b>3<sup>RD</sup></b>	<b>Cryptography concepts</b>
	<b>4<sup>TH</sup></b>	Plain text
<b>3<sup>RD</sup></b>	<b>1<sup>ST</sup></b>	Cipher Text
	<b>2<sup>ND</sup></b>	Substitution techniques
	<b>3<sup>RD</sup></b>	Transposition techniques
	<b>4<sup>TH</sup></b>	Encryption techniques
<b>4<sup>TH</sup></b>	<b>1<sup>ST</sup></b>	Decryption techniques
	<b>2<sup>ND</sup></b>	Symmetric key cryptography
	<b>3<sup>RD</sup></b>	Asymmetric key cryptography
	<b>4<sup>TH</sup></b>	<b>Symmetric key algorithms</b>
<b>5<sup>TH</sup></b>	<b>1<sup>ST</sup></b>	Symmetric key algorithm types
	<b>2<sup>ND</sup></b>	Symmetric key algorithm types
	<b>3<sup>RD</sup></b>	<b>Asymmetric key algorithms</b>
	<b>4<sup>TH</sup></b>	Asymmetric key algorithm types
<b>6<sup>TH</sup></b>	<b>1<sup>ST</sup></b>	Overview of Symmetric key cryptography
	<b>2<sup>ND</sup></b>	Overview of Symmetric key cryptography
	<b>3<sup>RD</sup></b>	Data encryption standards
	<b>4<sup>TH</sup></b>	Data encryption standards
<b>7<sup>TH</sup></b>	<b>1<sup>ST</sup></b>	Over view of Asymmetric key cryptography
	<b>2<sup>ND</sup></b>	The RSA algorithm
	<b>3<sup>RD</sup></b>	The RSA algorithm
	<b>4<sup>TH</sup></b>	Symmetric key cryptography
<b>8<sup>TH</sup></b>	<b>1<sup>ST</sup></b>	Asymmetric key cryptography
	<b>2<sup>ND</sup></b>	Digital signature
	<b>3<sup>RD</sup></b>	<b>Digital certificate</b>
	<b>4<sup>TH</sup></b>	Digital certificates
<b>9<sup>TH</sup></b>	<b>1<sup>ST</sup></b>	<b>Public key infrastructure</b>
	<b>2<sup>ND</sup></b>	Private key management
	<b>3<sup>RD</sup></b>	Private key management
	<b>4<sup>TH</sup></b>	PKIX Model
<b>10<sup>TH</sup></b>	<b>1<sup>ST</sup></b>	PKIX Model
	<b>2<sup>ND</sup></b>	Public key cryptography standards
	<b>3<sup>RD</sup></b>	Public key cryptography standards
	<b>4<sup>TH</sup></b>	Public key cryptography standards

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11 <sup>TH</sup>	1 <sup>ST</sup>	<b>Internet security protocols</b>
	2 <sup>ND</sup>	Basic concept
	3 <sup>RD</sup>	Secure socket layer
	4 <sup>TH</sup>	Transport layer security
12 <sup>TH</sup>	1 <sup>ST</sup>	Transport layer security
	2 <sup>ND</sup>	Secure Hyper text transfer protocol(SHTTP)
	3 <sup>RD</sup>	Secure Hyper text transfer protocol(SHTTP)
	4 <sup>TH</sup>	Time stamping protocol (TSP)
13 <sup>TH</sup>	1 <sup>ST</sup>	Secure electronic transaction (SET)
	2 <sup>ND</sup>	<b>User authentication</b>
	3 <sup>RD</sup>	Authentication basics
	4 <sup>TH</sup>	Password
14 <sup>TH</sup>	1 <sup>ST</sup>	Authentication Tokens
	2 <sup>ND</sup>	Certificate based authentication
	3 <sup>RD</sup>	Biometric authentication
	4 <sup>TH</sup>	<b>Network Security &amp; VPN</b>
15 <sup>TH</sup>	1 <sup>ST</sup>	Brief introduction of TCP/IP
	2 <sup>ND</sup>	Firewall
	3 <sup>RD</sup>	IP Security
	4 <sup>TH</sup>	Virtual Private Network (VPN)
<b>DISCIPLINE:CSE</b>	<b>SEMESTER: 6<sup>th</sup></b>	<b>NAME OF THE TEACHING FACULTY: SMT NAYANA PATEL</b>
<b>SUBJECT: IOT</b>	<b>NO.OF DAYS/PER WEEK CLASS ALLOTTED:4</b>	<b>SEMESTER FROM DATE: 14/02/2023 TO DATE: 23/05/2023 NO.OF WEEKS:15</b>
<b>WEEK</b>	<b>CLASS DAY</b>	<b>THEORY TOPICS</b>
1 <sup>ST</sup>	1 <sup>ST</sup>	Introduction to Internet of Things. Introduction.Characteristics of IoT . Applications of Io
	2 <sup>ND</sup>	IoT Categories IoT Enablers and connectivity layers
	3 <sup>RD</sup>	Baseline Technologies Sensor
	4 <sup>TH</sup>	Actuator
2 <sup>ND</sup>	1 <sup>ST</sup>	IoT components and implementation
	2 <sup>ND</sup>	Challenges for IoT
	3 <sup>RD</sup>	IOT Networking . Terminologies.
	4 <sup>TH</sup>	Gateway Prefix allotment
3 <sup>RD</sup>	1 <sup>ST</sup>	Impact of mobility on Addressing
	2 <sup>ND</sup>	Multihoming
	3 <sup>RD</sup>	Deviation from regular Web 2.6
	4 <sup>TH</sup>	IoT identification and Data protocols
4 <sup>TH</sup>	1 <sup>ST</sup>	Connectivity Technologies . Introduction.
	2 <sup>ND</sup>	IEEE 802.15.4
	3 <sup>RD</sup>	IEEE 802.15.4
	4 <sup>TH</sup>	ZigBee, 6LoWPAN
5 <sup>TH</sup>	1 <sup>ST</sup>	RFID, HART and wireless HART

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	2 <sup>ND</sup>	NFC, Bluetooth, Z wave, ISA100.11.A
	3 <sup>RD</sup>	Introduction. Components of a sensor node .Modes of Detection
	4 <sup>TH</sup>	Challenges in WSN .Sensor Web .Cooperation and Behaviour of Nodes in WSN
6 <sup>TH</sup>	1 <sup>ST</sup>	Self Management of WSN .Social sensing WSN
	2 <sup>ND</sup>	Application of WSN .Wireless Multimedia sensor network
	3 <sup>RD</sup>	Wireless Nanosensor Networks. Underwater acoustic sensor networks.
	4 <sup>TH</sup>	WSN Coverage .Stationary WSN, Mobile WSN.
7 <sup>TH</sup>	1 <sup>ST</sup>	M2M communication
	2 <sup>ND</sup>	M2M communication
	3 <sup>RD</sup>	M2M Ecosystem
	4 <sup>TH</sup>	M2M Ecosystem
8 <sup>TH</sup>	1 <sup>ST</sup>	M2M service Platform
	2 <sup>ND</sup>	Interoperability
	3 <sup>RD</sup>	Programming with Arduino .Features of Arduino
	4 <sup>TH</sup>	Components of Arduino Board.
9 <sup>TH</sup>	1 <sup>ST</sup>	Arduino IDE
	2 <sup>ND</sup>	Case Studies
	3 <sup>RD</sup>	Case Studies
	4 <sup>TH</sup>	Programming with Raspberry Pi
10 <sup>TH</sup>	1 <sup>ST</sup>	Architecture and Pin Configuration
	2 <sup>ND</sup>	Case studies
	3 <sup>RD</sup>	Implementation of IoT with Raspberry Pi
	4 <sup>TH</sup>	Implementation of IoT with Raspberry Pi
11 <sup>TH</sup>	1 <sup>ST</sup>	Software defined Networking .Limitation of current network
	2 <sup>ND</sup>	Origin of SDN . SDN Architecture
	3 <sup>RD</sup>	Rule Placement, Open flow Protocol
	4 <sup>TH</sup>	Controller placement
12 <sup>TH</sup>	1 <sup>ST</sup>	Security in SDN
	2 <sup>ND</sup>	Integrating SDN in IoT
	3 <sup>RD</sup>	Smart Homes. Origin and example of Smart Home Technologies
	4 <sup>TH</sup>	Smart Home Implementation
13 <sup>TH</sup>	1 <sup>ST</sup>	Home Area Networks(HAN)
	2 <sup>ND</sup>	Home Area Networks(HAN)
	3 <sup>RD</sup>	Smart Home benefits and issues
	4 <sup>TH</sup>	Smart Cities.Characteristics of Smart Cities . Smart city Frameworks
14 <sup>TH</sup>	1 <sup>ST</sup>	Challenges in Smart cities
	2 <sup>ND</sup>	Data Fusion
	3 <sup>RD</sup>	Smart Parking
	4 <sup>TH</sup>	Energy Management in Smart cities

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15 <sup>TH</sup>	1 <sup>ST</sup>	Industrial IoT. IIoT requirements
	2 <sup>ND</sup>	Design considerations
	3 <sup>RD</sup>	Applications of IIoT .Benefits of IIoT .
	4 <sup>TH</sup>	Challenges of IIoT
<b>DISCIPLINE:CSE</b>	<b>SEMESTER:6<sup>th</sup></b>	<b>NAME OF THE TEACHING FACULTY: SMT SUMITRA MAHAPATRA</b>
<b>SUBJECT:CC</b>	<b>NO.OF DAYS/PER WEEK CLASS ALLOTTED:4</b>	<b>SEMESTER FROM DATE: 14/02/2023 TO DATE: 23/05/2023 NO.OF WEEKS:15</b>
<b>WEEK</b>	<b>CLASS DAY</b>	<b>THEORY/PRACTICAL TOPICS</b>
1 <sup>st</sup>	1 <sup>st</sup>	1.1. Historical development 1.2. Vision of Cloud Computing
	2 <sup>nd</sup>	1.3. Characteristics of Cloud computing 1.4. Cloud computing Reference model
	3 <sup>rd</sup>	1.5. Cloud computing environment 1.6. Cloud Service requirements
	4 <sup>th</sup>	1.7. Cloud and Dynamic Infrastructure 1.8. Cloud Adoption
2 <sup>nd</sup>	1 <sup>st</sup>	1.9. Cloud applications
	2 <sup>nd</sup>	2.1. Introduction 2.2. Cloud Reference Model
	3 <sup>rd</sup>	2.1. Introduction 2.2. Cloud Reference Model
	4 <sup>th</sup>	2.3. Types of Clouds
3 <sup>rd</sup>	1 <sup>st</sup>	2.3. Types of Clouds
	2 <sup>nd</sup>	2.4. Cloud Interoperability and standards
	3 <sup>rd</sup>	2.4. Cloud Interoperability and standards
	4 <sup>th</sup>	2.5. Cloud computing Interoperability use cases
4 <sup>th</sup>	1 <sup>st</sup>	2.6. Role of standards in Cloud Computing environment
	2 <sup>nd</sup>	3.1. Introduction 3.2. Scalability and Fault Tolerance
	3 <sup>rd</sup>	3.1. Introduction 3.2. Scalability and Fault Tolerance

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	4 <sup>th</sup>	3.3. Cloud solutions 3.4. Cloud Ecosystem
5 <sup>th</sup>	1 <sup>st</sup>	3.5. Cloud Business process management 3.6. Portability and Interoperability
	2 <sup>nd</sup>	3.7. Cloud Service management 3.8. Cloud Offerings
	3 <sup>rd</sup>	3.9. Testing under Control 3.10. Cloud service Controls
	4 <sup>th</sup>	3.11. Virtual desktop Infrastructure
6 <sup>h</sup>	1 <sup>st</sup>	3.11. Virtual desktop Infrastructure
	2 <sup>nd</sup>	4.1. Create a virtualised Architecture 4.2. Data Centre
	3 <sup>rd</sup>	4.3. Resilience 4.4. Agility
	4 <sup>th</sup>	4.5. Cisco Data Centre Network architecture
7 <sup>th</sup>	1 <sup>st</sup>	4.6. Storage 4.7. Provisioning
	2 <sup>nd</sup>	4.8. Asset Management 4.9. Concept of Map Reduce
	3 <sup>rd</sup>	4.9. Concept of Map Reduce
	4 <sup>th</sup>	4.10. Cloud Governance 4.11. Load Balancing
8 <sup>th</sup>	1 <sup>st</sup>	4.12. High Availability 4.13. Disaster Recovery
	2 <sup>nd</sup>	5.1. Virtualisation 5.2. Network Virtualisation
	3 <sup>rd</sup>	5.3. Desktop and Application Virtualisation
	4 <sup>th</sup>	5.4. Desktop as a service
9 <sup>th</sup>	1 <sup>st</sup>	5.5. Local desktop Virtualisation 5.6. Virtualisation benefits
	2 <sup>nd</sup>	5.7. Server Virtualisation

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	3 <sup>rd</sup>	5.8. Block and File level Storage Virtualisation
	4 <sup>th</sup>	5.9. Virtual Machine Monitor 5.10. Infrastructure Requirements
10 <sup>th</sup>	1 <sup>st</sup>	5.11. VLAN and VSAN
	2 <sup>nd</sup>	6.1. Cloud Security Fundamentals
	3 <sup>rd</sup>	6.2. Cloud security services
	4 <sup>th</sup>	6.2. Cloud security services
11 <sup>th</sup>	1 <sup>st</sup>	6.3. Design Principles
	2 <sup>nd</sup>	6.3. Design Principles
	3 <sup>rd</sup>	6.4. Secure Cloud software requirements
	4 <sup>th</sup>	6.5. Policy Implementation
12 <sup>th</sup>	1 <sup>st</sup>	6.6. Cloud Computing Security Challenges
	2 <sup>nd</sup>	7.1. Architectural Considerations 7.2. Information Classification
	3 <sup>rd</sup>	7.3. Virtual Private Networks 7.4. Public Key and Encryption Key management
	4 <sup>th</sup>	7.5. Digital certificates 7.6. Key management 7.7. Memory Cards
13 <sup>th</sup>	1 <sup>st</sup>	7.6. Key management 7.7. Memory Cards
	2 <sup>nd</sup>	7.8. Implementing Identity Management 7.9. Controls and Autonomic System
	3 <sup>rd</sup>	8.1. Cloud Information security vendors
	4 <sup>th</sup>	8.2. Cloud Federation, characterization
14 <sup>th</sup>	1 <sup>st</sup>	8.3. Cloud Federation stack
	2 <sup>nd</sup>	8.4. Third Party Cloud service
	3 <sup>rd</sup>	8.5. Case study
	4 <sup>th</sup>	9.1. Introduction
15 <sup>th</sup>	1 <sup>st</sup>	9.2. Data Source

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	2 <sup>nd</sup>	9.2. Data Source
	3 <sup>rd</sup>	9.3. Data storage and Analysis
	4 <sup>th</sup>	9.4. Comparison with other system
<b>DISCIPLINE:CSE</b>	<b>SEMESTER: 6<sup>th</sup></b>	<b>NAME OF THE TEACHING FACULTY: Smt Kshirabdh Tanaya Acharya</b>
<b>SUBJECT:E-Commerce</b>	<b>NO.OF DAYS/PER WEEK CLASS ALLOTTED:4</b>	<b>SEMESTER FROM DATE: 14/02/2023 TO DATE: 23/05/2023 NO.OF WEEKS:15</b>
<b>WEEK</b>	<b>CLASS DAY</b>	<b>THEORY/PRACTICAL TOPICS</b>
1 <sup>ST</sup>	1 <sup>ST</sup>	Introduction, What is E-commerce
	2 <sup>ND</sup>	Introduction, What is E-commerce
	3 <sup>RD</sup>	E-Business
	4 <sup>TH</sup>	Categories of E-Commerce Applications
2 <sup>ND</sup>	1 <sup>ST</sup>	Global Trading Environment & Adoption of E-commerce
	2 <sup>ND</sup>	Comparison between traditional and E-commerce
	3 <sup>RD</sup>	Comparison between traditional and E-commerce
	4 <sup>TH</sup>	Advantage and Disadvantage
3 <sup>RD</sup>	1 <sup>ST</sup>	Introduction of <b>Business Models of E-Commerce</b>
	2 <sup>ND</sup>	Business Models of E-Commerce
	3 <sup>RD</sup>	B2C
	4 <sup>TH</sup>	B2B
4 <sup>TH</sup>	1 <sup>ST</sup>	Difference between B2C and B2B
	2 <sup>ND</sup>	C2C
	3 <sup>RD</sup>	Introduction of Need for B2B
	4 <sup>TH</sup>	Need for B2B
5 <sup>TH</sup>	1 <sup>ST</sup>	EDI
	2 <sup>ND</sup>	Paperless Transaction
	3 <sup>RD</sup>	EDI standards
	4 <sup>TH</sup>	Data Standards used in EDI
6 <sup>TH</sup>	1 <sup>ST</sup>	Cost of EDI , Reasons for Slow acceptability
	2 <sup>ND</sup>	Electronic Fund Transfer (Canada case eliminated)
	3 <sup>RD</sup>	XML and its application , Comparison of HTML and XML
	4 <sup>TH</sup>	Advantage of XML as a Technology
7 <sup>TH</sup>	1 <sup>ST</sup>	Introduction of <b>Business Applications of E-Commerce</b> , Trade Cycle
	2 <sup>ND</sup>	Supply Chain
	3 <sup>RD</sup>	E-Procurement

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	4 <sup>TH</sup>	Implementing E-Procurement
8 <sup>TH</sup>	1 <sup>ST</sup>	Competitive Advantage
	2 <sup>ND</sup>	E-Commerce Application in Manufacturing
	3 <sup>RD</sup>	E-Commerce Application in Wholesale
	4 <sup>TH</sup>	E-Commerce Application in Retail, E-Commerce Application in Service Sector
9 <sup>TH</sup>	1 <sup>ST</sup>	Introduction of <b>E-Commerce in Technology</b> , IT infrastructure, Contents
	2 <sup>ND</sup>	Internet, Intranet
	3 <sup>RD</sup>	Middleware
	4 <sup>TH</sup>	Extranet, VPN
10 <sup>TH</sup>	1 <sup>ST</sup>	Firewall, Cryptography
	2 <sup>ND</sup>	Digital Signature
	3 <sup>RD</sup>	Digital Envelope , Digital certificates
	4 <sup>TH</sup>	Introduction of <b>Electronic Payment System</b> , Electronic Payment Mechanism
11 <sup>TH</sup>	1 <sup>ST</sup>	Types of Payment System
	2 <sup>ND</sup>	Risks Associated with Electronic Payment
	3 <sup>RD</sup>	Risk Management option , Payment Gateway
	4 <sup>TH</sup>	Issues of Electronic Payment Technology
12 <sup>TH</sup>	1 <sup>ST</sup>	Recommendations
	2 <sup>ND</sup>	Security Requirement
	3 <sup>RD</sup>	Secure Socket Layer , Biometrics
	4 <sup>TH</sup>	Internet Banking
13 <sup>TH</sup>	1 <sup>ST</sup>	Introduction of <b>Security Issues in E-Commerce</b>
	2 <sup>ND</sup>	E-commerce security issues
	3 <sup>RD</sup>	Risks involved in e-commerce
	4 <sup>TH</sup>	Protecting e-commerce system
14 <sup>TH</sup>	1 <sup>ST</sup>	Common E-commerce Security Tools
	2 <sup>ND</sup>	Client server Network security
	3 <sup>RD</sup>	Data and Message Security
	4 <sup>TH</sup>	<b>Current Trends in Electronic World</b>
15 <sup>TH</sup>	1 <sup>ST</sup>	E-waste
	2 <sup>ND</sup>	E-Surveillance
	3 <sup>RD</sup>	E-governance
	4 <sup>TH</sup>	E-care
DISCIPLINE:CSE	SEMESTER: 6 <sup>th</sup>	NAME OF THE TEACHING FACULTY: SMT REETANJALI PANDA & SASMITA PANIGRAHI
SUBJECT:NS LAB	NO.OF DAYS/PER WEEK CLASS ALLOTTED:4	SEMESTER FROM DATE: 14/02/2023 TO DATE: 23/05/2023 NO.OF WEEKS:15



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<b>WEEK</b>	<b>CLASS DAY</b>	<b>THEORY/PRACTICAL TOPICS</b>
1 <sup>st</sup>	1 <sup>st</sup>	1. Installation and comparison of various anti virus software
	2 <sup>nd</sup>	1. Installation and comparison of various anti virus software
	3 <sup>rd</sup>	1. Installation and comparison of various antivirus software
	4 <sup>th</sup>	1. Installation and comparison of various anti virus software
2 <sup>nd</sup>	1 <sup>st</sup>	1. Installation and comparison of various anti virus software
	2 <sup>nd</sup>	1. Installation and comparison of various anti virus software
	3 <sup>rd</sup>	1. Installation and comparison of various anti virus software
	4 <sup>th</sup>	1. Installation and comparison of various anti virus software
3 <sup>rd</sup>	1 <sup>st</sup>	2. Installation and study of various parameters of firewall.
	2 <sup>nd</sup>	2. Installation and study of various parameters of firewall.
	3 <sup>rd</sup>	2. Installation and study of various parameters of firewall.
	4 <sup>th</sup>	2. Installation and study of various parameters of firewall.
4 <sup>th</sup>	1 <sup>st</sup>	2. Installation and study of various parameters of firewall.
	2 <sup>nd</sup>	2. Installation and study of various parameters of firewall.
	3 <sup>rd</sup>	2. Installation and study of various parameters of firewall.
	4 <sup>th</sup>	2. Installation and study of various parameters of firewall.
5 <sup>th</sup>	1 <sup>st</sup>	3. Writing program in C to Encrypt/Decrypt using XOR key.
	2 <sup>nd</sup>	3. Writing program in C to Encrypt/Decrypt using XOR key.
	3 <sup>rd</sup>	3. Writing program in C to Encrypt/Decrypt using XOR key.
	4 <sup>th</sup>	3. Writing program in C to Encrypt/Decrypt using XOR key.

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6 <sup>h</sup>	1 <sup>st</sup>	3. Writing program in C to Encrypt/Decrypt using XOR key.
	2 <sup>nd</sup>	3. Writing program in C to Encrypt/Decrypt using XOR key.
	3 <sup>rd</sup>	3. Writing program in C to Encrypt/Decrypt using XOR key.
	4 <sup>th</sup>	3. Writing program in C to Encrypt/Decrypt using XOR key.
7 <sup>th</sup>	1 <sup>st</sup>	3. Writing program in C to Encrypt/Decrypt using XOR key.
	2 <sup>nd</sup>	3. Writing program in C to Encrypt/Decrypt using XOR key.
	3 <sup>rd</sup>	3. Writing program in C to Encrypt/Decrypt using XOR key.
	4 <sup>th</sup>	3. Writing program in C to Encrypt/Decrypt using XOR key.
8 <sup>th</sup>	1 <sup>st</sup>	4. Study of VPN.
	2 <sup>nd</sup>	4. Study of VPN.
	3 <sup>rd</sup>	4. Study of VPN.
	4 <sup>th</sup>	4. Study of VPN.
9 <sup>th</sup>	1 <sup>st</sup>	4. Study of VPN.
	2 <sup>nd</sup>	4. Study of VPN.
	3 <sup>rd</sup>	4. Study of VPN.
	4 <sup>th</sup>	4. Study of VPN.
10 <sup>th</sup>	1 <sup>st</sup>	4. Study of VPN.
	2 <sup>nd</sup>	5. Study of various hacking tools.
	3 <sup>rd</sup>	5. Study of various hacking tools.
	4 <sup>th</sup>	5. Study of various hacking tools.
11 <sup>th</sup>	1 <sup>st</sup>	5. Study of various hacking tools.
	2 <sup>nd</sup>	5. Study of various hacking tools.
	3 <sup>rd</sup>	5. Study of various hacking tools.
	4 <sup>th</sup>	5. Study of various hacking tools.

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12 <sup>th</sup>	1 <sup>st</sup>	5. Study of various hacking tools.
	2 <sup>nd</sup>	5. Study of various hacking tools.
	3 <sup>rd</sup>	5. Study of various hacking tools.
	4 <sup>th</sup>	5. Study of various hacking tools.
13 <sup>th</sup>	1 <sup>st</sup>	5. Study of various hacking tools.
	2 <sup>nd</sup>	5. Study of various hacking tools.
	3 <sup>rd</sup>	6. Practical applications of digital signature
	4 <sup>th</sup>	6. Practical applications of digital signature
14 <sup>th</sup>	1 <sup>st</sup>	6. Practical applications of digital signature
	2 <sup>nd</sup>	6. Practical applications of digital signature
	3 <sup>rd</sup>	6. Practical applications of digital signature
	4 <sup>th</sup>	6. Practical applications of digital signature
15 <sup>th</sup>	1 <sup>st</sup>	6. Practical applications of digital signature
	2 <sup>nd</sup>	6. Practical applications of digital signature
	3 <sup>rd</sup>	6. Practical applications of digital signature
	4 <sup>th</sup>	6. Practical applications of digital signature
<b>DISCIPLINE:CSE</b>	<b>SEMESTER:6TH</b>	<b>NAME OF THE TEACHING FACULTY: SMT SUMITRA MAHAPATRA &amp; NAYANA PATEL</b>
<b>SUBJECT:IOT LAB</b>	<b>NO.OF DAYS/PER WEEK CLASS ALLOTTED:4</b>	<b>SEMESTER FROM DATE: 14/02/2023 TO DATE: 23/05/2023 NO.OF WEEKS:15</b>
<b>WEEK</b>	<b>CLASS DAY</b>	<b>THEORY/PRACTICAL TOPICS</b>
1 <sup>st</sup>	1 <sup>st</sup>	Basics of C language using Arduino IDE Understating basics of Arduino IDE
	2 <sup>nd</sup>	Basics of C language using Arduino IDE Understating basics of Arduino IDE
	3 <sup>rd</sup>	<ul style="list-style-type: none"> <li>Variables, datatype, loops, control statement, function</li> </ul>

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	4 <sup>th</sup>	<ul style="list-style-type: none"> <li>• Variables, datatype, loops, control statement, function</li> </ul>
2 <sup>nd</sup>	1 <sup>st</sup>	<ul style="list-style-type: none"> <li>• Variables, datatype, loops, control statement, function</li> </ul>
	2 <sup>nd</sup>	<ul style="list-style-type: none"> <li>• Variables, datatype, loops, control statement, function</li> </ul>
	3 <sup>rd</sup>	<ul style="list-style-type: none"> <li>• Variables, datatype, loops, control statement, function</li> </ul>
	4 <sup>th</sup>	<ul style="list-style-type: none"> <li>• Variables, datatype, loops, control statement, function</li> </ul>
3 <sup>rd</sup>	1 <sup>st</sup>	<ul style="list-style-type: none"> <li>• Variables, datatype, loops, control statement, function</li> </ul>
	2 <sup>nd</sup>	<ul style="list-style-type: none"> <li>• Variables, datatype, loops, control statement, function</li> </ul>
	3 <sup>rd</sup>	Practical using Arduino-interfacing sensors Interfacing Light Emitting Diode(LED)- Blinking LED
	4 <sup>th</sup>	Practical using Arduino-interfacing sensors Interfacing Light Emitting Diode(LED)- Blinking LED
4 <sup>th</sup>	1 <sup>st</sup>	Practical using Arduino-interfacing sensors Interfacing Light Emitting Diode(LED)- Blinking LED
	2 <sup>nd</sup>	Practical using Arduino-interfacing sensors Interfacing Light Emitting Diode(LED)- Blinking LED
	3 <sup>rd</sup>	Practical using Arduino-interfacing sensors Interfacing Light Emitting Diode(LED)- Blinking LED
	4 <sup>th</sup>	Practical using Arduino-interfacing sensors Interfacing Light Emitting Diode(LED)- Blinking LED
5 <sup>th</sup>	1 <sup>st</sup>	<ul style="list-style-type: none"> <li>• Interfacing Button and LED – LED blinking when button is pressed</li> </ul>
	2 <sup>nd</sup>	<ul style="list-style-type: none"> <li>• Interfacing Button and LED – LED blinking when button is pressed</li> </ul>
	3 <sup>rd</sup>	<ul style="list-style-type: none"> <li>• Interfacing Button and LED – LED blinking when button is pressed</li> </ul>
	4 <sup>th</sup>	<ul style="list-style-type: none"> <li>• Interfacing Button and LED – LED blinking when button is pressed</li> </ul>
6 <sup>h</sup>	1 <sup>st</sup>	<ul style="list-style-type: none"> <li>• Interfacing Button and LED – LED blinking when button is pressed</li> </ul>

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	2 <sup>nd</sup>	<ul style="list-style-type: none"> <li>• Interfacing Button and LED – LED blinking when button is pressed</li> </ul>
	3 <sup>rd</sup>	<ul style="list-style-type: none"> <li>• Interfacing Light Dependent Resistor (LDR) and LED, displaying automatic</li> </ul>
	4 <sup>th</sup>	<ul style="list-style-type: none"> <li>• Interfacing Light Dependent Resistor (LDR) and LED, displaying automatic</li> </ul>
7 <sup>th</sup>	1 <sup>st</sup>	<ul style="list-style-type: none"> <li>• Interfacing Light Dependent Resistor (LDR) and LED, displaying automatic</li> </ul>
	2 <sup>nd</sup>	<ul style="list-style-type: none"> <li>• Interfacing Light Dependent Resistor (LDR) and LED, displaying automatic</li> </ul>
	3 <sup>rd</sup>	<ul style="list-style-type: none"> <li>• Interfacing Light Dependent Resistor (LDR) and LED, displaying automatic</li> </ul>
	4 <sup>th</sup>	<ul style="list-style-type: none"> <li>• Interfacing Light Dependent Resistor (LDR) and LED, displaying automatic</li> </ul>
8 <sup>th</sup>	1 <sup>st</sup>	<ul style="list-style-type: none"> <li>• Night lamp Interfacing Temperature Sensor(LM35) and/or humidity sensor (e.g.DHT11</li> </ul>
	2 <sup>nd</sup>	<ul style="list-style-type: none"> <li>• Night lamp Interfacing Temperature Sensor(LM35) and/or humidity sensor (e.g.DHT11</li> </ul>
	3 <sup>rd</sup>	<ul style="list-style-type: none"> <li>• Night lamp Interfacing Temperature Sensor(LM35) and/or humidity sensor (e.g.DHT11</li> </ul>
	4 <sup>th</sup>	<ul style="list-style-type: none"> <li>• Night lamp Interfacing Temperature Sensor(LM35) and/or humidity sensor (e.g.DHT11</li> </ul>
9 <sup>th</sup>	1 <sup>st</sup>	<ul style="list-style-type: none"> <li>• Night lamp Interfacing Temperature Sensor(LM35) and/or humidity sensor (e.g.DHT11</li> </ul>
	2 <sup>nd</sup>	<ul style="list-style-type: none"> <li>• Night lamp Interfacing Temperature Sensor(LM35) and/or humidity sensor (e.g.DHT11</li> </ul>
	3 <sup>rd</sup>	<ul style="list-style-type: none"> <li>• Interfacing Liquid Crystal Display(LCD) – display data generated by sensor</li> </ul>
	4 <sup>th</sup>	<ul style="list-style-type: none"> <li>• Interfacing Liquid Crystal Display(LCD) – display data generated by sensor</li> </ul>

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10 <sup>th</sup>	1 <sup>st</sup>	<ul style="list-style-type: none"> <li>• Interfacing Liquid Crystal Display(LCD) – display data generated by sensor</li> </ul>
	2 <sup>nd</sup>	<ul style="list-style-type: none"> <li>• Interfacing Liquid Crystal Display(LCD) – display data generated by sensor</li> </ul>
	3 <sup>rd</sup>	<ul style="list-style-type: none"> <li>• Interfacing Liquid Crystal Display(LCD) – display data generated by sensor</li> </ul>
	4 <sup>th</sup>	<ul style="list-style-type: none"> <li>• Interfacing Liquid Crystal Display(LCD) – display data generated by sensor</li> </ul>
11 <sup>th</sup>	1 <sup>st</sup>	<ul style="list-style-type: none"> <li>• On LCD Interfacing Air Quality Sensor-pollution (e.g. MQ135) – display data on LCD</li> </ul>
	2 <sup>nd</sup>	<ul style="list-style-type: none"> <li>• On LCD Interfacing Air Quality Sensor-pollution (e.g. MQ135) – display data on LCD</li> </ul>
	3 <sup>rd</sup>	<ul style="list-style-type: none"> <li>• On LCD Interfacing Air Quality Sensor-pollution (e.g. MQ135) – display data on LCD</li> </ul>
	4 <sup>th</sup>	<ul style="list-style-type: none"> <li>• On LCD Interfacing Air Quality Sensor-pollution (e.g. MQ135) – display data on LCD</li> </ul>
12 <sup>th</sup>	1 <sup>st</sup>	<ul style="list-style-type: none"> <li>• On LCD Interfacing Air Quality Sensor-pollution (e.g. MQ135) – display data on LCD</li> </ul>
	2 <sup>nd</sup>	<ul style="list-style-type: none"> <li>• On LCD Interfacing Air Quality Sensor-pollution (e.g. MQ135) – display data on LCD</li> </ul>
	3 <sup>rd</sup>	<ul style="list-style-type: none"> <li>• Switch on LED when data sensed is higher than specified value. Interfacing Bluetooth module (e.g. HC05)- receiving data from mobile phone</li> </ul>
	4 <sup>th</sup>	<ul style="list-style-type: none"> <li>• Switch on LED when data sensed is higher than specified value. Interfacing Bluetooth module (e.g. HC05)- receiving data from mobile phone</li> </ul>
13 <sup>th</sup>	1 <sup>st</sup>	<ul style="list-style-type: none"> <li>• Switch on LED when data sensed is higher than specified value. Interfacing Bluetooth module (e.g. HC05)- receiving data from mobile phone</li> </ul>
	2 <sup>nd</sup>	<ul style="list-style-type: none"> <li>• Switch on LED when data sensed is higher than specified value. Interfacing Bluetooth module (e.g. HC05)- receiving data from mobile phone</li> </ul>
	3 <sup>rd</sup>	<ul style="list-style-type: none"> <li>• Switch on LED when data sensed is higher than specified value. Interfacing Bluetooth module (e.g. HC05)- receiving data from mobile phone</li> </ul>

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	4 <sup>th</sup>	,• Switch on LED when data sensed is higher than specified value. Interfacing Bluetooth module (e.g. HC05)- receiving data from mobile phone
14 <sup>th</sup>	1 <sup>st</sup>	,• Switch on LED when data sensed is higher than specified value. Interfacing Bluetooth module (e.g. HC05)- receiving data from mobile phone
	2 <sup>nd</sup>	• On Arduino and display on LCD Interfacing Relay module to demonstrate Bluetooth based home automation• application. (using Bluetooth and relay).
	3 <sup>rd</sup>	• On Arduino and display on LCD Interfacing Relay module to demonstrate Bluetooth based home automation• application. (using Bluetooth and relay).
	4 <sup>th</sup>	• On Arduino and display on LCD Interfacing Relay module to demonstrate Bluetooth based home automation• application. (using Bluetooth and relay).
15 <sup>th</sup>	1 <sup>st</sup>	• On Arduino and display on LCD Interfacing Relay module to demonstrate Bluetooth based home automation• application. (using Bluetooth and relay).
	2 <sup>nd</sup>	• On Arduino and display on LCD Interfacing Relay module to demonstrate Bluetooth based home automation• application. (using Bluetooth and relay).
	3 <sup>rd</sup>	• On Arduino and display on LCD Interfacing Relay module to demonstrate Bluetooth based home automation• application. (using Bluetooth and relay).
	4 <sup>th</sup>	• On Arduino and display on LCD Interfacing Relay module to demonstrate Bluetooth based home automation• application. (using Bluetooth and relay).