Lesson plan of Winter- 2023 (2023-24)
(3RD SEMESTER CSE)

DISCIPLINE:CSE	SEMESTER:3RD	NAME OF THE TEACHING FACULTY:MRS YOGESWARI MAGAR
SUBJECT: Computer System Architecture	NO.OF DAYS/PER WEEK CLASS ALLOTTED: 4	SEMESTER FROM DATE: 01/08/2023 TO DATE: 30/11/2023 NO.OF WEEKS:15
WEEK	CLASS DAY	THEORY/PRACTICAL TOPICS
1ST	1ST	Basic structure of computer hardware
	2ND	Basic Structure of computer hardware
	3RD	Functional Units
	4TH	Computer components
2ND	1ST	Performance measures
	2ND	Memory addressing & Operations
	3RD	Instructions & instruction Sequencing
	4TH	Fundamentals to instructions
3RD	1ST	Fundamentals to instructions
	2ND	Operands
	3RD	Op Codes
	4TH	Instruction formats
4TH	1ST	Addressing Modes
	2ND	Processor System
	3RD	Register Files
	4TH	Complete instruction execution
5TH	1ST	Complete instruction execution
	2ND	Fetch
	3RD	Decode
	4TH	Execution
6TH	1ST	Hardware control
	2ND	Hardware control
	3RD	Micro program control
	4TH	Memory System
7TH	1ST	Memory characteristics
	2ND	Memory characteristics
	3RD	Memory hierarchy
	4TH	Memory hierarchy
8TH	1ST	RAM and ROM organization
	2ND	Interleaved Memory
	3RD	Cache memory
	4TH	Cache memory
9TH	1ST	Virtual memory
	2ND	Input – Output System
	3RD	Input - Output Interface
	4TH	Modes of Data transfer
10TH	1ST	Modes of Data transfer

	2ND	Programmed I/O Transfer
	3RD	Programmed I/O Transfer
	4TH	Interrupt driven I/O
11TH	1ST	Interrupt driven I/O
	2ND	DMA
	3RD	I/O Processor
	4TH	I/O Interface & Bus architecture
12TH	1ST	Bus and System Bus
	2ND	Types of System Bus
	3RD	Data Bus
	4TH	Address Bus Control
13TH	1ST	Bus Structure
	2ND	Bus Structure
	3RD	Basic Parameters of Bus design
	4TH	SCSI
14TH	1ST	USB
	2ND	Parallel Processing
	3RD	Parallel Processing
	4TH	Linear Pipeline
15TH	1ST	Multiprocessor
	2ND	Multiprocessor
	3RD	Flynn"s Classification
	4TH	Flynn"s Classification

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DISCIPLINE:CSE	SEMESTER:3RD	NAME OF THE TEACHING FACULTY: MRS MOUSUMI SUBUDHI
SUBJECT: Data Structure	NO.OF DAYS/PER WEEK CLASS ALLOTTED: 4	SEMESTER FROM DATE: 01/08/2023 TO DATE: 30/11/2023 NO.OF WEEKS:15
WEEK	CLASS DAY	THEORY/PRACTICAL TOPICS
1ST	1ST	Explain Data, Information, data types
	2ND	Define data structure & Explain different operations Explain Abstract data types
	3RD	Discuss Algorithm & its complexity
	4TH	Explain Time, space tradeoff
2ND	1ST	Explain Basic Terminology, Storing Strings
	2ND	State Character Data Type, Discuss String Operations
	3RD	Discuss String Operations
	4TH	Give Introduction about array, Discuss Linear arrays, representation of linear array In memory
3RD	1ST	Explain traversing linear arrays, inserting & deleting elements
	2ND	Discuss multidimensional arrays, representation of two dimensional arrays in memory (row major order & column major order), and
		pointers
	3RD	Discuss multidimensional arrays, representation of two dimensional arrays in memory (row major order & column major order), and pointers
	4TH	Discuss multidimensional arrays, representation of two dimensional arrays in memory (row major order & column major order), and pointers
4TH	1ST	Explain sparse matrices.
	2ND	Explain sparse matrices.
	3RD	Give fundamental idea about Stacks and queues
	4TH	Give fundamental idea about Stacks and queues
5TH	1ST	Explain array representation of Stack
	2ND	Explain arithmetic expression ,polish notation & Conversion
	3RD	Explain arithmetic expression ,polish notation & Conversion
	4TH	Discuss application of stack, recursion
6TH	1ST	Discuss queues, circular queue, priorityqueues.
	2ND	Discuss queues, circular queue, priority queues.
	3RD	Give Introduction about linked list Explain representation of linked list inmemory
	4TH	Discuss traversing a linked list, searching

7TH	1ST	Discuss traversing a linked list, searching,
	2ND	Discuss garbage collection.
	3RD	Explain Insertion into a linked list, Deletion from a linked list, header linked list
	4TH	Explain Insertion into a linked list, Deletion from a linked list, header linked list
8TH	1ST	Explain Insertion into a linked list, Deletion from a linked list, header linked list
	2ND	Explain Insertion into a linked list, Deletion from a linked list, header linked list
	3RD	Explain Basic terminology of Tree
	4TH	Explain Basic terminology of Tree
9TH	1ST	Discuss Binary tree, its representation and traversal, binary search tree, searching,
	2ND	Discuss Binary tree, its representation and traversal, binary search tree, searching,
	3RD	Discuss Binary tree, its representation and traversal, binary search tree, searching,
	4TH	Explain insertion & deletion in a binary search trees
10TH	1ST	Explain insertion & deletion in a binary search trees
	2ND	Explain insertion & deletion in a binary search trees
	3RD	Explain graph terminology & its representation,
	4TH	Explain graph terminology & its representation,
11TH	1ST	Explain graph terminology & its representation,
	2ND	Explain Adjacency Matrix, Path Matrix
	3RD	Explain Adjacency Matrix, Path Matrix
	4TH	Explain Adjacency Matrix, Path Matrix
12TH	1ST	Discuss Algorithms for Bubble sort, Quicksort,
	2ND	Discuss Algorithms for Bubble sort, Quicksort,
	3RD	Discuss Algorithms for Bubble sort, Quicksort,
	4TH	Merging
13TH	1ST	Merging
	2ND	Linear searching, Binary searching
	3RD	Linear searching, Binary searching
	4TH	Linear searching, Binary searching
14TH	1ST	Discuss Different types of files organization and their access method,
	2ND	Discuss Different types of files organization and their access method,
	3RD	Discuss Different types of files organization and their access method,
	4TH	Discuss Different types of files organization and their access method,

15TH

15TH	1ST	Introduction to Hashing, Hash function, collision resolution, open addressing.
	2ND	Introduction to Hashing, Hash function, collision resolution, open addressing.
	3RD	Introduction to Hashing, Hash function, collision resolution, open addressing.
	4TH	Introduction to Hashing, Hash function, collision resolution, open addressing.

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SCIPLINE:CSE	SEMESTER:3RD	NAME OF THE TEACHING FACULTY: MRS LIPIKA SANDHA
SUBJECT: Digital Electronics	NO.OF DAYS/PER WEEK CLASS ALLOTTED: 4	SEMESTER FROM DATE: 01/08/2023 TO DATE: 30/11/2023 NO.OF WEEKS:15
WEEK	CLASS DAY	THEORY/PRACTICAL TOPICS
1ST	1ST	Basics of Digital Electronics
	2ND	Number System-Binary, Octal, Decimal, Hexadecimal - Conversion from one system to another number system.
	3RD	Arithmetic Operation-Addition, Subtraction, Multiplication, Division, 1"s & 2"s complement of Binary numbers& Subtraction using complements method
	4TH	Arithmetic Operation-Addition, Subtraction, Multiplication, Division, 1"s & 2"s complement of Binary numbers& Subtraction using complements method
2ND	1ST	Digital Code & its application & distinguish between weighted & non-weight Code, Binary codes, excess-3 and Gray codes.
	2ND	Digital Code & its application & distinguish between weighted & non-weight Code, Binary codes, excess-3 and Gray codes.
	3RD	Logic gates: AND,OR,NOT,NAND,NOR, Exclusive-OR, Exclusive-NOR--Symbol, Function, expression, truth table & timing diagram
	4TH	Logic gates: AND,OR,NOT,NAND,NOR, Exclusive-OR, Exclusive-NOR--Symbol, Function, expression, truth table & timing diagram
3RD	1ST	Universal Gates& its Realisation
	2ND	Boolean algebra, Boolean expressions, Demorgan"s Theorems.
	3RD	Represent Logic Expression: SOP & POS forms
	4TH	Karnaugh map (3 & 4 Variables)&Minimization of logical expressions ,don"t care conditions
4TH	1ST	Combinational Logic Circuits
	2ND	Half adder, Full adder, Half Subtractor, Full Subtractor, Serial and Parallel Binary 4 bit adder.
	3RD	Half adder, Full adder, Half Subtractor, Full Subtractor, Serial and Parallel Binary 4 bit adder.
	4TH	Half adder, Full adder, Half Subtractor, Full Subtractor, Serial and Parallel Binary 4 bit adder.

5TH	1ST	Multiplexer (4:1), De- multiplexer (1:4), Decoder, Encoder, Digital comparator (3 Bit)
	2ND	Multiplexer (4:1), De- multiplexer (1:4), Decoder, Encoder, Digital comparator (3 Bit)
	3RD	Multiplexer (4:1), De- multiplexer (1:4), Decoder, Encoder, Digital comparator (3 Bit)
	4TH	Multiplexer (4:1), De- multiplexer (1:4), Decoder, Encoder, Digital comparator (3 Bit)
6TH	1ST	Seven segment Decoder
	2ND	Seven segment Decoder
	3RD	Seven segment Decoder
	4TH	Seven segment Decoder
7TH	1ST	Sequential logic Circuits
	2ND	Principle of flip-flops operation, its Types
	3RD	Principle of flip-flops operation, its Types
	4TH	SR Flip Flop using NAND,NOR Latch (un clocked)
8TH	1ST	SR Flip Flop using NAND,NOR Latch (un clocked)
	2ND	SR Flip Flop using NAND,NOR Latch (un clocked)
	3RD	SR Flip Flop using NAND,NOR Latch (un clocked)
	4TH	Clocked SR,D,JK,T,JK Master Slave flip-flops-Symbol, logic Circuit, truth table and applications
9TH	1ST	Clocked SR,D,JK,T,JK Master Slave flip- flops-Symbol, logic Circuit, truth table and applications
	2ND	Clocked SR,D,JK,T,JK Master Slave flip- flops-Symbol, logic Circuit, truth table and applications
	3RD	Concept of Racing and how it can be avoided.
	4TH	Concept of Racing and how it can be avoided.
10TH	1ST	Registers, Memories & PLD
	2ND	Shift Registers-Serial in Serial -out, Serial- in Parallel-out, Parallel in serial out and Parallel in parallel out
	3RD	Shift Registers-Serial in Serial -out, Serial- in Parallel-out, Parallel in serial out and Parallel in parallel out
	4TH	Universal shift registers-Applications
11TH	1ST	Types of Counter & applications

	2ND	Binary counter, Asynchronous ripple counter (UP & DOWN), Decade counter. Synchronous counter, Ring Counter.
	3RD	Concept of memories-RAM, ROM, static RAM, dynamic RAM,PS RAM
	4TH	Basic concept of PLD & applications
12TH	1ST	A/D and D/A Converters
	2ND	Necessity of A/D and D/A converters.
	3RD	D/A conversion using weighted resistors methods.
	4TH	D/A conversion using R-2R ladder (Weighted resistors) network.
13TH	1ST	D/A conversion using R-2R ladder (Weighted resistors) network.
	2ND	A/D conversion using counter method.
	3RD	A/D conversion using Successive approximate method
	4TH	LOGIC FAMILIES
14TH	1ST	Various logic families &categories according to the IC fabrication process
	2ND	Various logic families &categories according to the IC fabrication process
	3RD	Various logic families &categories according to the IC fabrication process
	4TH	Characteristics of Digital ICs- Propagation Delay, fan-out, fan-in, Power Dissipation ,Noise Margin ,Power Supply requirement &Speed with Reference to logic families.
15TH	1ST	Characteristics of Digital ICs- Propagation Delay, fan-out, fan-in, Power Dissipation ,Noise Margin ,Power Supply requirement &Speed with Reference to logic families.
	2ND	Characteristics of Digital ICs- Propagation Delay, fan-out, fan-in, Power Dissipation ,Noise Margin ,Power Supply requirement &Speed with Reference to logic families.
	3RD	Features, circuit operation &various applications of TTL(NAND), CMOS (NAND & NOR)
	4TH	Features, circuit operation &various applications of TTL(NAND), CMOS (NAND & NOR)

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SCIPLINE:CSE	SEMESTER:3RD	NAME OF THE TEACHING FACULTY:MR PRAMOD KUMAR SWAIN
SUBJECT: Object Oriented Methodology	NO.OF DAYS/PER WEEK CLASS ALLOTTED: 4	SEMESTER FROM DATE: 01/08/2023 TO DATE: 30/11/2023 NO.OF WEEKS:15
WEEK	CLASS DAY	THEORY/PRACTICAL TOPICS
1ST	1ST	Programming Languages
	2ND	Object Oriented Programming
	3RD	OOPS concepts and terminology
	4TH	Benefit of OOPS
2ND	1ST	Application of OOPS
	2ND	Introduction to Java ,What is Java
	3RD	Execution Model of Java ,The Java Virtual Machine
	4TH	Benefit of OOPS
3RD	1ST	Primitive Data types & Declarations
	2ND	Numeric , Character Literals and String Literals
	3RD	Arrays, Non-Primitive Data types
	4TH	Casting and Type Casting
4TH	1ST	Widening and Narrowing Conversions
	2ND	Operators and Expressions
	3RD	Control Flow Statements
	4TH	The concept of Objects and Classes Concept and Syntax of class
5TH	1ST	Defining a Class , Concept and Syntax of Methods
	2ND	Defining Methods , Creating an Object
	3RD	Accessing Class Members , Instance Data and Class Data
	4TH	Constructors
6TH	1ST	Access Specifiers
	2ND	Access Modifiers
	3RD	Access Control
	4TH	Use of Java Objects String Builder and String Buffer
7TH	1ST	String Builder and String Buffer
	2ND	Methods and Messages
	3RD	Methods and Messages
	4TH	Parameter Passing
8TH	1ST	Comparing and Identifying Objects
	2ND	The Concept of Inheritance
	3RD	Inheritance in Java
	4TH	Use of Inheritance
9TH	1ST	Types of Inheritance
	2ND	Single Inheritance
	3RD	Multi-level Inheritance
	4TH	Hierarchical Inheritance
10TH	1ST	Hybrid Inheritance
	2ND	The concept of Polymorphism
	3RD	Types of Polymorphism
	4TH	Types of Polymorphism
11TH	3RD	Run time Polymorphism

	4TH	Run time Polymorphism
12TH	1ST	Method Overriding
	2ND	Introduction to Packages
	3RD	Java API Packages, Using System Packages
	4TH	Naming Convention ,Creating Packages
13TH	1ST	Accessing a Package ,Using a Package
	2ND	Adding a Class to Package
	3RD	Hiding Classes ,Static Import
	4TH	Concept of Java Files and I/O Defining a stream
14TH	1ST	Reading and writing to files(only txt files) Input and Output Stream
	2ND	Manipulating Input data 8 Opening and Closing Streams
	3RD	Predefined streams
	4TH	File handling Classes and Methods
15TH	1ST	Exception Handling ,Exceptions Overview
	2ND	Exception Keywords ,Catching Exceptions
	3RD	Using Finally Statement , Exception Methods Declaring Exceptions

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DISCIPLINE:CSE	SEMESTER:3RD	NAME OF THE TEACHING FACULTY:MRS ITUSHREE RANI RATHA
SUBJECT: Environmental Studies	NO.OF DAYS/PER WEEK CLASS ALLOTTED: 4	SEMESTER FROM DATE: 01/08/2023 TO DATE: 30/11/2023 NO.OF WEEKS:15
WEEK	CLASS DAY	THEORY/PRACTICAL TOPICS
1ST	1ST	The Multidisciplinary nature of environmental studies:
	2ND	Definition,
	3RD	scope and importance.
	4TH	Need for public awareness.
2ND	1ST	Natural Resources: Renewable and non- renewable resources: a) Natural resources and associated problems.
	2ND	Forest resources: Use and over-exploitation, deforestation, case studies, Timber extraction mining,damsandtheireffectsonforestsandtribal people.
	3RD	Forest resources: Use and over-exploitation, deforestation, case studies, Timber extraction mining,damsandtheireffectsonforestsandtribal people.
	4TH	Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dam"s benefits and problems.
3RD	1ST	. Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dam"s benefits and problems.
	2ND	Mineral Resources: Use and exploitation, environmental effects of extracting and using mineralresources.
	3RD	Mineral Resources: Use and exploitation, environmental effects of extracting and using mineralresources.
	4TH	Food Resources: World food problems, changes caused by agriculture and over grazing, effects of modern agriculture, fertilizers- pesticides problems, water logging, salinity,.
4TH	1ST	Energy Resources: Growing energy need, renewable and non-renewable energy sources, use of alternate energy sources, case studies.
	2ND	Land Resources: Land as a resource, land degradation, man induces landslides, soil erosion, anddesertification. b) Role of individual in conservation of natural resources. c) Equitable use of resources for sustainable life styles.

	3RD	Systems: Concept of an eco-system.
	4TH	Structure and function of an eco-system.
5TH	1ST	Producers, consumers, decomposers. 3.4. Energy flow in the eco systems.
	2ND	Ecological succession.
	3RD	Food chains, food webs and ecological pyramids.
	4TH	Introduction, types, characteristic features, structure and function of the following eco system:
6TH	1ST	Forest ecosystem:
	2ND	Aquatic eco systems (ponds, streams, lakes, rivers, oceans, estuaries).
	3RD	Biodiversity and it's Conservation: 4.1. Introduction- Definition: genetics, species and ecosystem diversity.
	4TH	Biogeographically classification of India.
7TH	1ST	Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and optin values.
	2ND	Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and optin values.
	3RD	Biodiversity at global, national and local level.
	4TH	Biodiversity at global, national and local level.
8TH	1ST	Threats to biodiversity: Habitats loss, poaching of wild life, man wildlife conflicts.
	2ND	Environmental Pollution: 5.1. Definition Causes, effects and control measures of:
	3RD	a) Air pollution. b) Water pollution.
	4TH	c) Soil pollution d) Marine pollution
9TH	1ST	e) Noise pollution.
	2ND	f) Thermal pollution
	3RD	g) Nuclear hazards.
	4TH	Solid waste Management: Causes, effects and control measures of urban and industrial wastes.
10TH	1ST	Solid waste Management: Causes, effects and control measures of urban and industrial wastes.
	2ND	Role of an individual in prevention of pollution.
	3RD	Role of an individual in prevention of pollution.
	4TH	Disaster management: Floods, earth quake, cyclone and landslides.
11TH	1ST	Disaster management: Floods, earth quake, cyclone and landslides.
	2ND	Social issues and the Environment:
	3RD	Form unsustainable to sustainable development.
	4TH	Urban problems related to energy.

12TH	1ST	Water conservation, rain water harvesting, water shed management.
	2ND	Resettlement and rehabilitation of people; its problems and concern.
	3RD	Environmental ethics: issue and possible solutions.
	4TH	Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, case studies.
13TH	1ST	Air (prevention and control of pollution) Act
	2ND	Water (prevention and control of pollution) Act.
	3RD	Public awareness.
	4TH	Human population and the environment:
14TH	1ST	Population growth and variation among nations.
	2ND	Population explosion- family welfare program.
	3RD	Environment and human health.
	4TH	Human rights.
15TH	1ST	Value education
	2ND	Role of information technology in environment and human health.
	3RD	Role of information technology in environment and human health.
	4TH	Role of information technology in environment and human health.

Shasheree Rani Rath.
Signature of Faculty
01/08/2023.

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1/8/2023
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Lesson plan of Winter-2023(2023-2024)
(5TH SEMESTER CSE)

DISCIPLINE:CSE	SEMESTER:5TH	NAME OF THE TEACHING FACULTY: MRS. ASHRITA NAYAK
SUBJECT: Entrepreneurship and Management Technology	NO.OF DAYS/PER WEEK CLASS ALLOTTED : 4	SEMESTERFROMDATE: 01/08/2023 TO DATE: 30/11/2023 NO.OF WEEKS:15
WEEK	CLASS DAY	THEORY/PRACTICAL TOPICS
1ST	1ST	**Entrepreneurship** Concept /Meaning of Entrepreneurship
	2ND	Need of Entrepreneurship
	3RD	Characteristics, Qualities and Types of entrepreneur, Functions
	4TH	Barriers in entrepreneurship
2ND	1ST	Entrepreneurs vrs. Manager
	2ND	Forms of Business Ownership: Sole proprietorship, partnership forms and others
	3RD	Types of Industries, Concept of Start-ups
	4TH	Entrepreneurial support agencies at National, State, District Level(Sources): DIC, NSIC,OSIC, SIDBI, NABARD, Commercial Banks, KVIC etc.
3RD	1ST	Entrepreneurial support agencies at National, State, District Level(Sources): DIC, NSIC,OSIC, SIDBI, NABARD, Commercial Banks, KVIC etc.
	2ND	Technology Business Incubators (TBI) and Science and Technology Entrepreneur Parks
	3RD	**Market Survey and Opportunity Identification (Business Planning)** Business Planning
	4TH	SSI, Ancillary Units
4TH	1ST	Tiny Units, Service sector Units
	2ND	Time schedule Plan
	3RD	Agencies to be contacted for Project Implementation
	4TH	Assessment of Demand and supply and Potential areas of Growth
5TH	1ST	Identifying Business Opportunity
	2ND	Final Product selection
	3RD	**Project report Preparation** Preliminary project report
	4TH	Detailed project report
6TH	1ST	Techno economic Feasibility
	2ND	Project Viability
	3RD	**Management Principles**
		Definitions of management
	4TH	Principles of management
7TH	1ST	Functions of management (planning, organising, staffing, directing and controlling etc.)
	2ND	Functions of management (planning, organising, staffing, directing and controlling etc.)

	3RD	Level of Management in an Organisation
	4TH	**Functional Areas of Management** a) Production management Functions, Activities
	1ST	Productivity Quality control Production Planning and control
8TH		b) Inventory Management
	2ND	Need for Inventory management
		Models/Techniques of Inventory management
	3RD	c) Financial Management
	4TH	Functions of Financial management Management of Working capital Costing (only concepts)
9TH	1ST	Break even Analysis Brief idea about Accounting Terminologies: Book Keeping, Journal entry, Petty Cash book, P&L Account, Balance Sheets(only Concepts)
	2ND	d) Marketing Management Concept of Marketing and Marketing Management
	3RD	Marketing Techniques (only concepts) Concept of 4P s (Price, Place, Product, Promotion)
	4TH	e) Human Resource Management Functions of Personnel Management Manpower Planning, Recruitment,
10TH	1ST	Sources of manpower, Selection process, Method of Testing, Methods of Training & Development, Payment of Wages
	2ND	**Leadership and Motivation** a) Leadership Definition and Need/Importance
	3RD	Qualities and functions of a leader Manager Vs Leader
	4TH	Style of Leadership (Autocratic, Democratic, Participative)
11TH	1ST	b) Motivation Definition and characteristics Importance of motivation
	2ND	Factors affecting motivation Theories of motivation (Masl Methods of Improving Motivation
	3RD	Importance of Communication in Business
		Types and Barriers of Communication
	4TH	**Work Culture, TQM & Safety** Human relationship and Performance in Organization
12TH	1ST	Relations with Peers, Superiors and Subordinates
	2ND	TQM concepts: Quality Policy, Quality Management, Quali system
	3RD	Accidents and Safety, Cause, preventive measures
	4TH	General Safety Rules , Personal Protection Equipment(PPE
13TH	1ST	**Legislation** a) Intellectual Property Rights(IPR),
	2ND	Patents, Trademarks, Copyrights
	3RD	b) Features of Factories Act 1948 with Amendment (only salient points)
	4TH	b) Features of Factories Act 1948 with Amendment (only salient points)

14TH	1ST	c) Features of Payment of Wages Act 1936 (only salient points)
	2ND	c) Features of Payment of Wages Act 1936 (only salient points)
	3RD	**Smart Technology** Concept of IOT, How IOT works
	4TH	Components of IOT, Characteristics of IOT
15TH	1ST	Categories of IOT
	2ND	Applications of IOT- Smart Cities, Smart Transportation,
	3RD	Smart Home, Smart Healthcare, Smart Industry,
	4TH	Smart Agriculture, Smart Energy Management etc.

Anayan 01/08/23
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DISCIPLINE:CSE	SEMESTER:5TH	NAME OF THE TEACHING FACULTY: MRS. MOUSUMI SUBUDHI
SUBJECT: Internet and Web Technology	NO.OF DAYS/PER WEEKCLASS ALLOTTED:4	SEMESTERFROMDATE: 01/08/2023TO DATE:30/11/2023 NO.OF WEEKS:15
WEEK	CLASS DAY	THEORY/PRACTICAL TOPICS
1ST	1ST	**Internet Basics** Computer network
	2ND	Concept of Internet, Intranet
	3RD	Modem
	4TH	IP Address, Internet Domains
2ND	1ST	CIDR Notation, ISP
	2ND	TCP/IP
	3RD	**Internet Connectivity & WWW** Introduction to connectivity
	4TH	Medium and methods of connectivity, ISDN, VSAT, RF Link
3RD	1ST	Working of Internet
	2ND	Introduction to WWW
	3RD	Application Level Protocol
	4TH	Web Browser, URL, Hyper text
4TH	1ST	Hyperlinks, Hypermedia
	2ND	Search Engine, Proxy sever
	3RD	CGI, URI, Dreamweaver
	4TH	**Internet Security** Introduction to security
5TH	1ST	Types of security
	2ND	Authentication & Authorization
	3RD	Firewalls
	4TH	Encryption & Decryption
6TH	1ST	SSL
	2ND	**Internet Application** E-Mail, Email protocols
	3RD	Telnet, FTP
	4TH	Newsgroup
7TH	1ST	Chartroom Internet Relay Chat
	2ND	Video Conferencing
	3RD	E-Commerce
	4TH	**Website Classifications** Static Websites
8TH	1ST	Dynamic websites Web portals
	2ND	Social Networking Sites RSS Feed, Blog, Netiquette
	3RD	**Development of Portals Using HTML** Design a webpage, Good Web Design
	4TH	HTML Introduction
9TH	1ST	HTML Tags, Anchor Tag

	2ND	Table Tag
	3RD	HTML Frames
	4TH	Forms
10TH	1ST	Disadvantages of HTML
	2ND	Separating style from structure with style sheets
	3RD	CSS Rules, Types of CSS
	4TH	**Client side Scripting with JavaScript**
		Introduction to script, Client side Scripting, Types of Scripting
11TH	1ST	Variables in JavaScript, Built-in Function Arrays in JavaScript, Conditional statements, Loops
	2ND	Document Object Model Creating Functions, objects in JavaScript
		Working with Cookies
	4TH	Connecting database using JavaScript in HTML Page
12TH	1ST	Working with Browser, validating and submitting Forms
	2ND	**Server Side Scripting** Introduction to server side Scripting
	3RD	Components of SSS Difference between CSS and SSS
	4TH	Server side Scripting method
13TH	1ST	JavaScript on server
	2ND	SQL
	3RD	**Server Side Programming using PHP** Introduction to PHP
	4TH	Variables, string
14TH	1ST	operator types
	2ND	operator types
	3RD	Conditional statement
	4TH	Loops
15TH	1ST	Array
	2ND	GET and POST Method
	3RD	GET and POST Method
	4TH	Sessions

PLINE:CSE
JECT: Software gineering
WEEK
1st

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CSE Dept.

CIPLINE:CSE	SEMESTER:5TH	NAME OF THE TEACHING FACULTY: SMT YOGESWARI MAGAR
UBJECT: Software Engineering	NO.OF DAYS/PER WEEK CLASS ALLOTTED:4	SEMESTERFROMDATE: 01/08/2023 TO DATE:30/11/2023 NO.OF WEEKS:15
WEEK	CLASS DAY	THEORY/PRACTICAL TOPICS
1st	1st	1.1 Program vs. Software product 1.2Emergence of Software Engineering.
	2nd	Computer SystemsEngineering Software Life CycleModels
	3rd	1.4.1Classical Water fall model
	4th	1.4.2 Iterative Water fall model
2nd	1st	1.4.3Prototyping model
	2nd	Evolutionarymodel Spiralmodel
	3rd	Responsibility of Project Manager Project Planning
	4th	2.3 Metrics for Project size estimation(LOC and FP)
3rd	1st	2.4 Project Estimation Techniques
	2nd	2.5 COCOMO Models, Basic, Intermediate and complete
	3rd	2.5 COCOMO Models, Basic, Intermediate and complete
	4th	2.6 Scheduling
4th	1st	2.7 Organization and Team structure
	2nd	2.8 Staffing
	3rd	2.9 Risk Management
	4th	2.10 Configuration Management
5th	1st	Requirements gathering andanalysis Software RequirementsSpecification
	2nd	Software Requirements Specification Contents ofSRS
	3rd	3.2.2 Characteristics of Good SRS
	4th	3.2.3 Organization of SRS
6h	1st	3.2.4 Techniques for representing complexing logic
	2nd	3.2.4 Techniques for representing complexing logic
	3rd	What is a Good S/Wdesign Cohesion andcoupling
	4th	Neat arrangement S/W Designapproaches
7th	1st	Structuredanalysis Data Flow Diagrams
	2nd	Symbols used inDFD DesigningDFD
	3rd	4.9Developing DFD model of a system
	4th	4.10Shortcomings of DFD
8th	1st	4.11 Structured design
	2nd	4.12Principles of transformation of DFD to Structure Chart

	3rd	4.13Transform analysis and Transaction Analysis
	4th	4.14 Design Review
9th	1st	5.1 Characteristics of Good Interface
	2nd	5.2 Basic concepts of UID
	3rd	5.2 Basic concepts of UID
	4th	5.3Types of User interfaces
10th	1st	5.3Types of User interfaces
	2nd	5.4 Components based GUI development
	3rd	5.4 Components based GUI development
	4th	5.4 Components based GUI development
11th	1st	6.1 Coding 6.2.Code Review
	2nd	6.2.1 Code walk through
	3rd	6.2.2 Code inspections and software Documentation
	4th	Testing Unit testing
12th	1st	6.5 Black Box Testing
	2nd	6.6 Equivalence class partitioning and boundary value analysis
	3rd	6.7 White Box Testing
	4th	6.8Different White Box methodologies statement coverage branch coverage, condition coverage, path coverage,cyclomatic complexity data flow based testing and mutation testing
13th	1st	6.8Different White Box methodologies statement coverage branch coverage, condition coverage, path coverage,cyclomatic complexity data flow based testing and mutation testing
	2nd	Debuggingapproaches Debuggingguidelines
	3rd	6.11 Integration Testing
	4th	6.11 Integration Testing
14th	1st	7.1 Software Reliability
	2nd	7.2 Different reliability metrics
	3rd	7.2 Different reliability metrics
	4th	7.3 Reliability growth modeling
15th	1st	7.3 Reliability growth modeling
	2nd	7.4 Software quality
	3rd	7.4 Software quality
	4th	7.5 Software Quality Management System

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Signature of Faculty

HoD(I/c) 28/7/2023
CSE Dept.

DISCIPLINE:CSE	SEMESTER:5TH	NAME OF THE TEACHING FACULTY: MR PRAMOD KUMAR SWAIN
SUBJECT: Computer Hardware and Maintenance	NO.OF DAYS/PER WEEK CLASS ALLOTTED:4	SEMESTERFROMDATE: 01/08/2023 TO DATE: 30/11/2023 NO.OF WEEKS:15
WEEK	CLASS DAY	THEORY/PRACTICAL TOPICS
1st	1st	1.1 Need of Management in Computer Centre
	2nd	1.2 Types of Jobs carried out in computers in an organization
	3rd	1.2 Types of Jobs carried out in computers in an organization
	4th	1.3 Duties and responsibilities of personnel involved
2nd	1st	1.3 Duties and responsibilities of personnel involved
	2nd	1.4 Need of Training of Staff
	3rd	1.4 Need of Training of Staff
	4th	1.5 Idea about Various makes of Computers.
3rd	1st	2.1 Layouts of computer centre
	2nd	2.1 Layouts of computer centre
	3rd	2.2 False Roofing, Air Conditioning, Dust Proofing
	4th	2.2 False Roofing, Air Conditioning, Dust Proofing
4th	1st	2.3 Power Conditioning equipments like CVT, UPS, Isolation Circuits with Principles of functioning
	2nd	2.3 Power Conditioning equipments like CVT, UPS, Isolation Circuits with Principles of functioning
	3rd	2.3 Power Conditioning equipments like CVT, UPS, Isolation Circuits with Principles of functioning
	4th	2.3 Power Conditioning equipments like CVT, UPS, Isolation Circuits with Principles of functioning
5th	1st	3.1 Components and slots (Processor socket/slot, memory sockets, Chip sets, Cache, BIOS, Clock Generator, RTC, I/O Controller, power Connector, Key Board/Mouse Connectors, Jumpers, Pin Connectors etc)
	2nd	3.1 Components and slots (Processor socket/slot, memory sockets, Chip sets, Cache, BIOS, Clock Generator, RTC, I/O Controller, power Connector, Key Board/Mouse Connectors, Jumpers, Pin Connectors etc)
	3rd	3.1 Components and slots (Processor socket/slot, memory sockets, Chip sets, Cache, BIOS, Clock Generator, RTC, I/O Controller, power Connector, Key Board/Mouse Connectors, Jumpers, Pin Connectors etc)
	4th	3.1 Components and slots (Processor socket/slot, memory sockets, Chip sets, Cache, BIOS, Clock Generator, RTC, I/O Controller, power Connector, Key Board/Mouse Connectors, Jumpers, Pin Connectors etc)
6h	1st	3.2 Mother architecture and Block Diagram

	2nd	3.3 Processors (Core2 Duo Processor, Quad Core Processor, Core i3,i5,i7 series, AMD A10 series, Xeon Processor)
	3rd	3.3 Processors (Core2 Duo Processor, Quad Core Processor, Core i3,i5,i7 series, AMD A10 series, Xeon Processor)
	4th	3.3 Processors (Core2 Duo Processor, Quad Core Processor, Core i3,i5,i7 series, AMD A10 series, Xeon Processor)
7th	1st	3.3 Processors (Core2 Duo Processor, Quad Core Processor, Core i3,i5,i7 series, AMD A10 series, Xeon Processor)
	2nd	3.4 Chip Sets
	3rd	3.5 Bus Standards: PCI, AGP, USB etc.
	4th	3.6 Colour Codes for Devices/ports
8th	1st	4.1 Primary and secondary Memory
	2nd	4.2 Memory speed , Access time
	3rd	4.3 Hard Disk, Construction, Working Principles
	4th	4.4 File System, Formatting, Partitioning
9th	1st	4.5 Removable Storage and Special devices and their working principles(CD, DVD, External drives, Memory stick, USB flash drive, Solid state drive)
	2nd	4.5 Removable Storage and Special devices and their working principles(CD, DVD, External drives, Memory stick, USB flash drive, Solid state drive)
	3rd	4.6 Key Board(Interfacing, USB, Wireless, Types of keys, Keyboard Matrix, Key Bouncing)
	4th	4.7 Mouse Interfacing
10th	1st	4.8 Printers(Types, operation and Trouble shooting)
	2nd	4.8 Printers(Types, operation and Trouble shooting)
	3rd	4.9 Scanners(Types, operation and Trouble Shooting)
	4th	4.9 Scanners(Types, operation and Trouble Shooting)
11th	1st	5.1 Displays and Graphics Cards
	2nd	5.2 LCD,PLASMA,TFT,LED Displays
	3rd	5.3 SMPS (Basic Principles and operations, O/P voltage)
	4th	5.4 BIOS(Functions, setups, types of BIOS)
12th	1st	5.5 POST(Operation, Faults related to Hardware)
	2nd	6.1 Assembly of Components of Desktop Computers
	3rd	6.2 Configuring Laptops and Power settings

	4th	6.3 Laptop Components(Adapter , Battery, Basic problems, RAM types, CPU types, Laptop Motherboard, block diagram, Laptop Keyboard)
13th	1st	6.3 Laptop Components(Adapter , Battery, Basic problems, RAM types, CPU types, Laptop Motherboard, block diagram, Laptop Keyboard)
	2nd	6.4 Formatting , Partitioning and installation of OS
	3rd	6.5 Trouble shooting of Common ly faced problems in Desktops and Laptops
	4th	6.6 Basic Maintenance concepts(Preventive, Corrective, online)
14th	1st	6.7 Diagnostic programs and tools
	2nd	6.8 Methods of Trouble shooting(symptom observation, analysis, diagnosis, Correction)
	3rd	Up gradation of system and applicationsoftware Virus concepts,Antivirus
	4th	7.1 Network Interface card
15th	1st	7.2 Networking interconnecting devices such as hub, switch, Router
	2nd	7.2 Networking interconnecting devices such as hub, switch, Router
	3rd	7.3 Types of Network cable
	4th	7.4 Types of Network connector

01/08/23
Signature of Faculty

M Subudhi
1/8/2023
HoD (I/c)
CSE Dept.

NE:CSE	SEMESTER:5TH	NAME OF THE TEACHING FACULTY: MRS. PRATIBHA PATNAIK
SUBJECT: Mobile Computing	NO.OF DAYS/PER WEEK CLASS ALLOTTED:4	SEMESTER FROM DATE: 01/08/2023 TO DATE:30/11/2023 NO.OF WEEKS:15
WEEK	CLASS DAY	THEORY TOPICS
1ST	1ST	Networks,
	2ND	Wireless Networks
	3RD	Mobile Computing
	4TH	Mobile Computing Characteristics
2ND	1ST	Application of Mobile Computing
	2ND	Application of Mobile Computing
	3RD	**Introduction to Mobile Development Frameworks** C/S architecture
	4TH	n-tier architecture
3RD	1ST	n-tier architecture and www
	2ND	n-tier architecture and www
	3RD	Peer-to Peer architecture
	4TH	Mobile agent architecture
4TH	1ST	**Introduction to Wireless Transmission** Signals
	2ND	Period, Frequency and Bandwidth. Antennas
	3RD	Signal Propagation
	4TH	Multiplexing
5TH	1ST	Modulation
	2ND	Spread Spectrum Cellular System
	3RD	**Introduction to Medium Access Control** Hidden/ Exposed Terminals
	4TH	The basic Access Method
6TH	1ST	The basic Access Method
	2ND	Near / Far Terminals, SDMA
	3RD	FDMA,TDMA
	4TH	CDMA
7TH	1ST	**WIRELESS LANS** Wireless LAN and communication, Infrared, Radio Frequency
	2ND	IR Advantages and Disadvantages RF Advantages and Disadvantages Wireless Network Architecture Logical
	3RD	Types of WLAN , IEEE802.11,MAC layer
	4TH	Security, Synchronization
8TH	1ST	Power Management, Roaming
	2ND	Bluetooth Overview

	3RD	**Introduction to Ubiquitous Wireless Communication**
	4TH	Scenario of Mobile Communication
9TH	1ST	Mobile Communication Generations 1G to 3G
	2ND	Mobile Communication Generations 1G to 3G
	3RD	3rd Generation Mobile Communication Network
	4TH	Universal Mobile telecommunication System (UMTS
10TH	1ST	**Overview Mobile IP** Working with mobile IP
	2ND	Mobile IP Entities, Mobility Agents
	3RD	Components of Mobile IP Mobile IPv6 Features
	4TH	Mobile IPv6 Address Types
11TH	1ST	Mobile IPv6 Address Scope.
	2ND	Mobile IP Operation.
	3RD	**Mobile Computing** WWW architecture for Mobile computing Need of WAP Benefits of WAP
	4TH	Examples of WAP, WAP- Architecture
12TH	1ST	WML
	2ND	WAP Push architecture
	3RD	Push-Pull based data acquisition
	4TH	I-mode , WAP 2.x
13TH	1ST	**Wireless Telecomm Networks** GSM
	2ND	GPRS
	3RD	IS-95
	4TH	CDMA-2000
14TH	1ST	W-CDMA
	2ND	Wireless Sensor Networks
	3RD	**Messaging Services** Short Message Services (SMS)
	4TH	Short Message Services (SMS)
15TH	1ST	Multimedia Message Services (MMS)
	2ND	Multimedia Message Services (MMS)
	3RD	Multimedia transmission over wireless
	4TH	Multimedia transmission over wireless

Pratibha Patnaik
1/8/2023
Signature of Faculty

MSubudhi
1/8/2023
HoD (I/c)
CSE Dept.