Group Formation & Topic Allocation list

AY: 2020-2021

Class: TEIT-A&B

Group No	Name of Group Members	Roll No	Dept/ Class/ Div	Subject Assigned	Module No	Topic name	List of sub topics
1	Manav Agarwal	1	A	Operating System	1	Introduction to Operating Systems	Basics of Operating System:
	Mohit Gupta	21					Operating system services and interface
	Jyoti Khare	51					Operating System Design, OS structure, System calls, OS types, Process states , Process State transitions
2	Dev Jindani	46	A	Operating System	2	Process Management	Process Control Block ,Context switching – Threads – Concept of multithreads.
	Manu Khandelwal	50					Process Scheduling, Types of Schedulers ,Scheduling criteria : CPU utilization, Throughput, Turnaround Time, Waiting Time, Response Time (Definition only) , Scheduling algorithms : Preemptive and Non-preemptive , FCFS ,SJF ,RR, Thread Scheduling and Multiple Processor Scheduling
	Ritesh Mishra	62					
3	Hinal Deriya	17	A	Operating System	3	Process coordination	Synchronization: The critical Section Problem, Peterson's Solution, synchronization Hardware and semaphores,
	Khushi Joshi	47					Classic problems of synchronization: Reader's & Writer Problem, Dinning Philosopher Problem, Producer Consumer Problem; Deadlocks: System Model, Deadlock Characterization, Methods for Handling Deadlocks, Deadlock Prevention, Deadlock Avoidance, Deadlock Detection, Recovery from Deadlock.
4	Darshil Ajudia	3	A	Operating System	4	Memory Management	Memory Management strategies: Background, Logical and Physical address map , Memory allocation : Contiguous Memory allocation – Fixed and variable partition –
	Akshat Chandel	9					Internal and External fragmentation and Compaction ,Swapping,

							Contiguous Memory Allocation,
	Hinal Kuvadiya	40					Paging , Structure of the Page Table, Segmentation; Virtual Memory – Basics of Virtual Memory – Hardware and control structures – Locality of reference, Page fault Page Replacement, Allocation of Frames, Thrashing.
5	Rohit Das	15	A	Operating System	5	File Systems in OS	File system: File Concept , Access Methods, Directory and Disk Structure, File-System Mounting, File Sharing, Protection;
	Chanchal Gupta	26					Implementing file System: File-System Structure, File-System Implementation,
	Suman Gupta	33					Directory Implementation, Allocation Methods, Free-Space Management, Efficiency and Performance, Recovery, NFS
6	Pratik Jain	38	A	Operating System	6	Secondary Storage Structure	Overview of Mass-Storage Structure, Disk Structure, Disk Attachment, Disk Scheduling, Disk Management, RAID Structure,
	Priyansh Jain	39					Stable-Storage Implementation, Tertiary-Storage Structure, Swap-Space Management;
	Jainam Jagani	41					I/O systems: Overview I/0 Hardware, Application I/0 Interface, Kernel I/0 Subsystem
7	Vaibhav Kumar	12	A	Cryptography & Network Security	1	Introduction & Classical Cryptography	Principle of security, Service Mechanisms and attacks-the OSI security architecture-Network security model-Classical Encryption techniques (Symmetric cipher model,
	Nidhi Gupta	28					mono-alphabetic and poly-alphabetic substitution techniques: Vignere cipher, playfair cipher, Affine cipher,Hill cipher,
	Aditya Singh	52					transposition techniques: keyed and keyless transposition ciphers, steganography).

8	Richa Gupta	30	A	Cryptography & Network Security	2	Block Ciphers & Public Key Cryptography	Block cipher principles-block cipher modes of operation, Data Encryption Standard, Triple DES, Advanced Encryption Standard (AES)-Blowfish-RC5 algorithm.
	Chaithanya Moozhickal	63					Public key cryptography: Principles of public key cryptosystems-The RSA Cryptosystem, Rabin Cryptosystem, Elgamal Cryptosystem, Elliptic Curve Cryptosystems.
	Shilpi Char	43					Key management – Diffie Hellman Key exchange
9	Ritika Chaube	10	A	Cryptography & Network Security	3	Cryptographic Hashes & Digital Signatures	Authentication requirement – Authentication function , Types of Authentication,
	Pratik Bhatt	6					MAC – Hash function – Security of hash function and MAC MD5 Message Digest Algorithm, Secure Hash Algorithm, Digital signature and
	Parth Desai	18					authentication protocols: Needham Schroeder Authentication protocol, Digital Signature Schemes – RSA, EI Gamal. Digital Certificate: X.509, PKI
10	Vanshita Agarwal	2	A	Cryptography & Network Security	4	Protection of Computing Resources and Security Features	Secure Programs , Non-malicious Program Errors – Buffer Overflows, Incomplete Mediation; Viruses and Other Malicious Code – Methods of Control – Developmental Controls, Objects to be Protected;
	Saloni Dalvi	13					User Authentication – Use of Passwords, Additional Authentication Information, Attacks on Passwords, Exhaustive Attack, Password Selection Criteria.
	Sayantani Das	16					
11	Ritik Gupta	31	A	Cryptography & Network Security	5	Network Security	Network security basics: TCP/IP vulnerabilities (Layer wise), Packet Sniffing, ARP spoofing, port scanning, IP spoofing, TCP syn flood, DNS Spoofing.
	Ritesh Dewoolkar	19					Denial of Service: Classic DOS attacks, Source Address spoofing, ICMP flood, SYN flood, UDP flood, Distributed Denial of Service,

	Rohan Kuckian	36					Defenses against Denial of Service Attacks. Firewalls, Intrusion Detection Systems: Host Based and Network Based IDS, Honey pots.
12	Suraj Jha	45	A	Cryptography & Network Security	6	Network Security Applications	Authentication Applications, Kerberos, Internet Security Protocols: SSL, TLS,
	Aniket Jha	44					IPSEC: AH, ESP, Secure Email: PGP and S/MIME, Key Management.
13	Shubham Jain	5	A	Automata Theory	1	Introduction to Automata Theory	Alphabets, Strings and Languages, automata and Grammars. Finite. Automata (FA) -its behavior; DFA - Formal definition, simplified notations (state transition diagram, transition table), Language of a DFA.
	Aman Khairwar	66					NFA -Formal definition, Language of an NFA. An Application: Text Search, FA with epsilon-transitions,
	Abhishek Tripathi	69					Eliminating epsilon-transitions, Equivalence of DFAs and NFAs.
14	Shivam Gupta	32	A	Automata Theory	2	Regular Expression & Finite Automata	Regular expressions (RE) - Definition, FA and RE, RE to FA, FA to RE, algebraic laws for RE, applications of REs, Regular grammars and FA, FA for regular grammar
	Rinkesh Kumavat	53					Regular grammar for FA, DFA Minimization Some decision properties of Regular languages -emptiness,
	Mohammad Ali Khan	49					finiteness, membership, equivalence of two DF As or REs, Finite automata with output.
15	Kripa Damania	14	A	Automata Theory	3	Regular languages & Pumping Lemma	Proving languages to be non-regular - Pumping Lemma, and its applications. Some closure properties of Regular languages
	Aman Gupta	25					- Closure under Boolean operations, reversal, homomorphism, inverse homomorphism, etc.
	Pratik Gupta	29					Myhill-Nerode Theorem.

	Ashish Anand	4					Formal definition, sentential forms, leftmost and rightmost derivations, the language of a CFG. Derivation tree or Parse tree- Definition, Relationship between parse trees and derivations.
16	Aditya Lohumi	56	A	Automata Theory	4	Context-free Grammar and Context Free Language	Parsing and ambiguity, Application of CFGs, Ambiguity in grammars and Languages. Simplification of CFGs - Removing useless symbols, epsilon-Productions, and unit productions, Normal forms - CNF and GNF. Proving that some languages are not context free -Pumping lemma for CFLs, applications. Some closure properties of CFLs -Closure under union, concatenation, Kleene closure, substitution, Inverse homomorphism, reversal, intersection with regular set, etc.
	Ravindra Chabhadia	64					Some more decision properties of CFLs, Review of some undecidable CFL problems. Context sensitive Grammar and linear bounded Automata
17	Shubham Gadia	22	A	Distibuted systems	3	Processes	Threads, Code Migration: Approaches to Code Migration, Migration and Local Resources, Migration in Heterogeneous Systems
	Heeth Jain	37					
	Pritesh Jain	42					
18	Neeraj Chauhan	11	A	Automata Theory	6	Turing Machines, Undecidability and Recursively Enumerable Languages	Formal definition and behavior, Transitions (diagrams, Functions and Tables) Language of a TM,Design of TM as generator, decider and acceptor. , etc. Variants of TM: Non-deterministic, Multitrack, Multitape, Universal TM.
	Nilesh Gond	23					Equivalence of Single and Multi Tape TMs, Power and Limitations of TMs, Design of Single and Multi Tape TMs as a computer of simple functions: Unary, Binary (Logical and Arithmetic), String operations (Length,

							Concat, Match, Substring Check, etc)
	Rahul Kurmi	54					Recursive and recursively enumerable languages, Properties of recursive and recursively enumerable languages, A language that is not recursively enumerable. The universal language, Undecidability of the universal language, The Halting problem, Post's Correspondence Problem (PCP) -Definition, Undecidability of PCP.
19	Vivek Gupta	34	A	Web Programming	1	Introduction to web technologies & Client-Side Programming : HTML, CSS and JavaScript	Basic of HTML: Web System architecture-1,2,3 and n tier architecture, URL, domain name system, overview of HTTP and FTP, Cross browser compatibility issues, W3C Validators. Formatting and Fonts, Anchors, images, lists, tables, frames and forms.
	Eshaan Kushwaha	55					Introduction to CSS: Syntax of CSS, Exploring CSS Selectors, Inserting CSS in an HTML Document, Set Up Web Pages with CSS, Styling Text, Font, and Properties, Page Backgrounds.
	Varun Mewada	59					Introduction to JavaScript: JavaScript language constructs, Objects in JavaScript- Built in, Browser objects and DOM objects, event handling, form validation and cookies.
20	Pranali Darekar	58	A	Web Programming	2	HTML5 and Responsive Web Design with CSS3 & Bootstrap	HTML 5: Structure of a Web Page, HTML5 DOCTYPE, Page Encoding, HTML5 Tags/Elements - Audio and Video, Micro data and Custom data, Accessibility, Geo-location, Canvas, HTML5 And CSS3, Browser Support.
	Anurag Mishra	60					CSS3 and Responsive Web Design: Introducing CSS3, Fonts and Text Effects,Borders and Box Effects, CSS3 Transitions, Transformations and Animations, Media Queries.

	Ashutosh Mishra	61					Bootstrap: Overview of Bootstrap, need to use Bootstrap, Bootstrap Grid System, Grid Classes, Basic Structure of a Bootstrap Grid, Typography, Tables, Images, Jumbotron, Wells, Alerts, Buttons, Button Groups, Badges/Labels, Progress Bars, Pagination, List Groups, Panels, Dropdowns, Collapse, Tabs/Pills, Navbar, Forms, Inputs, Bootstrap Grids, Grid System, Stacked/Horizontal, Bootstrap Themes, Templates.
21	Nidhi Chaubey	8	A	Web Programming	3	JSON and JAVASCRPIT Frameworks	JSON: Introduction to the JavaScript Object Notation (JSON), JSON vs XML, Need of JSON, JSON Syntax Rules, JSON Data, JSON Objects, JSON Arrays, JSON Uses, JSON Files, AJAX, Rich Internet Application using AJAX and JSON Node.js: Introduction to Node.js, Node modules, Selectors Syntax, Developing node.js web application, Event-driven I/O server-side JavaScript.
	Harsh Mangukiya	57					Express: Introduction to Express, First Express Application, Request and Response Objects, Implementing MVC Pattern, Express application configuration, Rendering Views.
	Amit Mishra	68					Angular.js: Introduction, Angular 2 Architecture, Language Choices, Introduction to Components, Templates, Interpolation, and Directives, Data Bindings and Pipes, Building Nested Components Services and Dependency Injection, Retrieving Data Using HTTP, Navigation and Routing Basics, Angular Modules.
22	Raj jadhav	35	A	Web Programming	4	Server-Side Programming : PHP	Introduction to PHP- Data types, control structures,
	Saurabh Dubey	20					built in functions, building web applications using PHP- tracking users, PHP and

							Mysql database connectivity with example
	Harika Moparty	48					Introduction to PHP Framework.
23	Hridyansh Gupta	27	A	Web Programming	5	Web Extensions and Web Services	Web Services: Web service architecture, Components, Benefits, XML, SOAP,
	Priyal Dumralia	65					WSDL, UDDI, RESTful Web Services, Comparison between SOAP and REST based Web services,
	Sakshi Madkholkar	67					Security in Web Services, API vs Web Service, REST-ful web services, Resource Oriented Architecture.
24	Sajjad shaikh	67	B	Web Programming	6	Python Web Framework: Django	Introduction, Web Frameworks,
	Prince Pandey	4					Introduction to Django,
	Anita Uniyal	61					Projects and Apps, “Hello World” Application.
25	Sanket Muchhala	2	B	No SQL	1	Introduction to No SQL	Overview, and History of NoSQL Databases,Database Features of NoSQL,Difference Between RDBMS and NoSQL,Benefits of NoSQL Databases NoSQL business drivers,NoSQL
	Aastha Shah	70					case studies,Keeping components simple to promote reuse, Using application tiers to simplify design, Speeding performance by strategic useof RAM, SSD, and disk
	Avisha Jain	69					Using consistent hashing to keep your cache current Comparing ACID and BASE , How to minimize downtime with database sharding, Brewer’s CAP theorem
26	Aniket Singh	36	B	No SQL	2	NoSQL data architecture patterns	NoSQL data Architecture patterns and its types:Key/Value stores, Graph stores, Column oriented stores and Document stores.
	Darsh Shetty	27					Document stores using MongoDB, Features, Consistency, Transactions, Availability, Query Features, Scaling, Suitable Use Cases, Event Logging, Content Management Systems,

							Blogging Platforms, Web Analytics or Real-Time Analytics, E-Commerce Applications,
	Sudhanshu Rai	13					When Not to Use, Complex Transactions Spanning Different Operations, Queries against Varying Aggregate Structure.
27	Vivek Shah	20	B	IT Strategy and Standards	1	Business Models, Competitive Strategy and Organization Mission	How businesses are modeled, and how they compete. The mission of businesses and other organizations, and the relationship between an organization's mission and its strategy. Competitive Domains, Competitive Consequences of Technological Change – Creation of New Products, Changes in the Value Chain, Changes in the Value Constellation, Competitive Rivalry. Technological Characteristics of Competitive Domains – Technological Opportunity, Resource Requirements, Collateral Assets, Institutional Milieu, Speed.
	Vishal Singhaniya	41					
	Ashutosh Sanghvi	17					
28	Hardik Sodhani	43	B	Green IT	4	Green Data Canters	Data Centres and Associate Energy Challenges, Data Centre IT Infrastructure,
	Kavin Parikh	60					Data Centre Facility Infrastructure: Implications for Energy Efficiency,
	Riddhi Umap	49					IT Infrastructure Management, Green Data Centre Metrics
29	Suyash Sawant	18	B	IT Strategy and Standards	2	Technology Intelligence	Signals of New Technology, What is Technology Intelligence, Importance of Technology Intelligence, Levels of Technology Intelligence, External versus Internal Technology Intelligence. Mapping the Technology Environment – Steps in Mapping, Mapping the Macrolevel and Industry Level Environment. Mechanisms for Data Collection – Challenges,
	Abhijeet Pawar	8					
	Siddeshwari Patil	7					

							Organizational Arrangements and Key Principles for Data Collection
30	Tanisha rai	14	B	No SQL	3	Column-oriented NoSQL database	Column- oriented NoSQL databases using Apache HBASE, Column-oriented NoSQL databases using Apache Cassandra,
	Vidhi Rana	15					Architecture of HBASE, What Is a Column-Family Data Store? Features, Consistency, Transactions, Availability, Query Features, Scaling, Suitable Use Cases, Event Logging
	Aditi singh	33					Content Management Systems, Blogging Platforms, Counters, Expiring Usage, When Not to Use
31	Nandini Yadav	55	B	Green IT	2	Software development and data centers	Software: Introduction, Energy-Saving Software Techniques, Evaluating and Measuring Software Impact to Platform Power. Sustainable Software, Software Sustainability Attributes, Software Sustainability Metrics, Sustainable Software Methodology, Sustainability Hierarchy Models, Product Level Information, Individual Level Information, Functional Level Information, Organizational Level Information, Regional/CityLevel Information related to software development with relevant examples .
	Pratyaksha Ambast	42					
	Rahul singh	63					
32	Ganesh Verma	52	B	IT Strategy & Standards	3	Business Strategy and Technology Strategy	Business Strategy , Strategic Analysis and Decision Making using Product Evaluation Matrix, Market-Growth-Market-Share Analysis Matrix, X-Y Coordinating Method, M-by-N Matrix, SWOT Matrix, Formulation of Technology Strategy, Core Competencies, Exploitation of Core Competencies, Integration, Linking Technology & Business Strategies.
	Yash Pancholi	3					
	Ravi Upadhyay	51					
33	Abhishek Pandita	6	B	Green IT	3	Data Storage and	Storage Media Power Characteristics, Energy

	Saakshi Pawar	9				communicati on	Management Techniques for Hard Disks, System-Level Energy Management, Objectives of Green Network Protocols, Green Network Protocols and Standards. Case studies of various industries
	Deeksha Rai	12					
34	Arpit Sharma	74	B	IT Strategy and Standards	4	IT and the Digital Organization	The functionality of the digital organization, and the role that IT plays in supporting it. Competitive and operational perspectives on IT, including analysis of both benefits and risk.
	Yash Panchal	64					
	Tanay Dadhra	22					
35	Vikas Tiwari	47	B	No SQL	5	Using NoSQL to manage big data	Big data NoSQL solution, relationship between scalability and expressivity, Types of big data problems, Analyzing big data with a shared-nothing architecture,
	Bimalesh Seth	66					master-slave versus peer-to-peer models, Using MapReduce to transform your data over distributed systems, Different ways that NoSQL systems handle big data problems,
	Durgesh Tiwari	46					Case study: event log processing with Apache Flume, computer-aided discovery of health care fraud
36	Abhishek Mishra	58	B	Microprocesso r-Microcontrolle r Embedded System	1	Introduction to 8086 Microprocess or	8086 Architecture, Pin Diagram, Register Organization, Memory Segmentation, Physical address generation mechanism, Memory bank, Signal Description, Minimum Mode, Maximum mode
	Aditya Shetkar	62					
	Ruchit Yadav	56					
37	Rohan Vishwakarma	53		No SQL	4	NoSQL Key-Value database & Graph NoSQL databases	NoSQL Key/Value databases using Riak, Key-Value Databases, What Is a Key-Value Store, Key-Value Store Features, Consistency, Transactions, Query Features, Structure of Data, Scaling, Suitable Use Cases, Storing Session Information, User Profiles, Preferences, Shopping Cart Data,

	Hetansh Shah	72					When Not to Use, Relationships among Data, Multioperation Transactions, Query by Data, Operations by Sets.Graph NoSQL databases using Neo4, NoSQL database development tools and programming languages, Graph Databases,
	Nidhi Shetty	68					What is a Graph Database? Features, Consistency, Transactions, Availability, Query Features, Scaling, Suitable Use Cases, Connected Data, Routing, Dispatch, and Location-Based Services, Recommendation Engines, When Not to Use
38	Dhanashree Shripatwar	29	B	IT Strategy and Standards	5	Alignment of IT with Business strategy	IT and Michael Porter's Competitive Forces Framework and its relevance in the context of New age Businesses IT and Value Chain Framework IT and Business Process Reengineering; Virtual Organizations IT and Competitive Advantage
	Harsh Mukesh Sharma	23					
	Bhavanish Dhamnaskar	16					
39	Prabhat Upadhyay	50	B	IT Strategy and Standards	6	IT Standards, Enterprise architecture & strategic planning	IT Service Management System (ITSM) ISO/IEC 20000-1:2011, Information Security Management System (ISMS) , Cloud Security ISO/IEC 27017:2015, IT Strategy Initiation, IT management best practicesControl Objectives for Information and related Technology (COBIT) framework , IT Strategy Planning, Outsourcing, Offshoring & IT Subsidy,Critical success factors of IT strategy
	Rahul Tandel	59					
	Ashish Suthar	44					
40	Urvi Sharma	26	B	No SQL	6	Developing Web Application with NOSQL and NOSQL Administration	Php and MongoDB, Python and MongoDB, Creating Blog Application with PHP, NoSQL Database Administration
	Janhavi Shetty	28					
	Smruti Singh	40					
41	Hasti Shah	19	B	Distributed Systems	1	Fundamentals of	Introduction, Distributed Computing Models, Software Concepts, Issues in designing
	Rishabh Sharma	24					

	Sourav Tripathi	48				Distibuted systems	Distributed System, Client – Server Model
42	Rohan Sharma	25	B	Microprocessor-Microcontroller Embedded System	2	Instruction set of 8086 Microprocessor	Instruction Set – Arithmetic, Logical, String and Branch instruction. Addressing Modes, Procedure & Macro, Assemble Directives, Assembly language programming of 8086.
	Pratishtha Singh	38					
	Laxmi Yadav	54					
43	Vishal Mourya	1	B	Microprocessor-Microcontroller Embedded System	3	Interrupt & memory interfacing to 8086 Microprocessor	Interrupt structure, Interrupt vector table, Interrupt service Routine, Memory mapping, Memory interfacing to 8086 microprocessor.
	Sanjay Shukla	30					
	Adarsh Singh	32					
44	Umar Qureshi	73	B	Microprocessor-Microcontroller Embedded System	4	Introduction to 8051 Microcontroller	Features, Architecture of 8051 microcontroller, Special function registers (SFRs), I/O Ports, Pin Diagram, Register bank, Memory Organization, TIMER / COUNTER, Serial communication, Power down modes
	Rishabh Singh	71					
	Megh Poddar	10					
45	Amar Singh	35	B	Microprocessor-Microcontroller Embedded System	5	Instruction set & programming of 8051 microcontroller	Addressing Mode, Arithmetic and Logical instruction, Call and branch instruction, Boolean Processor instruction, TIMER / COUNTER programming, Serial Communication Programming
	Parth Singh	37					
	Shubham Singh	39					
46	Zoheb Siddiqui	31	B	Microprocessor-Microcontroller Embedded System	6	Interrupts & I/O interfacing to 8051 microcontroller	Interrupt structure, Interrupt service routine, Interfacing of D/A and A/D convertor, Stepper motor interfacing
	Pratik Thakur	45					
	Ankit Tiwari	57					
47	Hitarth Patel	65	B	Distributed System	2	Communication	Message Passing , Introduction to Message Passing, Advantages and features of Message Passing, Message Format, Message Buffering, Multi Data gram Messaging , Group Communication, Remote Procedure Call (RPC): Basic RPC Operations, Parameter Passing, Extended RPC Models Remote Object Invocation: Distributed Objects, Binding a Client to an Object, Static
	Prasad Nayak	11					
	Ritesh Pandey	5					

							Vs Dynamic RMI, Parameter, Passing, Java RMI Message Oriented Communication: Persistence and synchronicity in communication, Message Oriented Transient and Persistent Communications
	Ritesh Mishra	62					

Sd/-

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