Lesson Plan

Name of the Faculty:	**Dr. Navdeep Kumar Chopra/ Dr. Gaganpreet/ Er. Ritu Sheoran**
Discipline:	**B.Tech CSE**
Semester:	**6th**
Subject:	**Mobile Ad-hoc and Wireless Sensor Networks (PE-CS-S308)**
Work Load(Lecture/Practical) per week (In hours):	**Lecture - 3**

Sl No.	**Lecture No.**	**Theory**	
		Topic(Including Assignment/Test/Quiz)	**Pedagogy (PPT& Chalk-Board and Board/Video Recording /Activity/Case Study)**
1	L1	**Unit 1 -** Introduction to MANET	Chalk-Board
2	L2	Mobility Management	Chalk-Board
3	L3	Characteristics & Attributes related to MANETs	PPT
4	L4	Modelling distributed applications for MANETs	PPT
5	L5	MAC Mechanisms & Protocols	PPT & Chalk-Board
6	L6	MAC Mechanisms & Protocols Continued.	PPT & Chalk-Board
7		**Class Test – Unit-1**	Offline
8	L8	**Unit 2** – Introduction to MANET Routing Protocols	PPT
9	L9	Destination Sequenced Destination Vector Algorithm	PPT & Chalk-Board
10	L10	Cluster Based Gateway switch routing Algorithm	PPT & Chalk-Board
11	L11	Global State Routing Algorithm	PPT & Chalk-Board
12	L12	Fish-eye State Routing Algorithm	PPT & Chalk-Board
13	L12	Fish-eye State Routing Algorithm Continued	PPT & Chalk-Board
14	L13	Dynamic Source Routing Algorithm	PPT & Chalk-Board
15	L14	Ad-hoc On-Demand Routing Algorithm	PPT & Chalk-Board
16	L14	Ad-hoc On-Demand Routing Algorithm Continued	PPT & Chalk-Board
17	L15	OLSR & TORA Algorithm	PPT & Chalk-Board
18	L16	Location Aided Routing Algorithm	PPT & Chalk-Board
19	L16	Location Aided Routing Algorithm Continued	PPT & Chalk-Board
20	L17	Zonal Routing Algorithm	PPT & Chalk-Board
21		**Query Session Unit-2**	Offline
22		**Assignment -1**	Offline
23	L20	**Unit 3** – Introduction to Ad-hoc Network Security	PPT
24	L21	Link Layer & Network Layer Level	PPT & Chalk-Board
25	L22	Link Layer & Network Layer Level continued	PPT & Chalk-Board

26	L23	Trust & Key Management in Security	PPT & Chalk-Board
27	L24	Trust & Key Management in Security continued	Case Study
28	L25	Self-policing MANET	PPT
29	L26	Node misbehaviour	PPT & Chalk-Board/Example
30	L27	Secure Routing & Reputation System	PPT
31	L28	WSN Design issues & Clustering	PPT/Case Study
32	L29	Application of WSN	PPT
		Query Session Unit-3	Offline
		Class Test Unit 3	Offline
33	L30	**Unit 4** – Introduction to MAC Layer & Routing Protocols in WSN	PPT/Case Study
34	L31	Introduction to MAC Layer & Routing Protocols in WSN Continued	PPT/Case Study
35	L32	Data Management: Retrieval Techniques in WSN	PPT & Chalk-Board
36	L33	Sensor Database & Distributed Query Processing	PPT & Chalk-Board
37	L34	Data dissemination & Aggregation schemes	PPT
38	L35	Operating System for WSN	PPT
39	L36	Security issues in WSN	PPT
38		**Query Session Unit-4**	Offline
40		**Assignments -2**	Offline

Lesson Plan

Name of the Faculty:	**Er. Sonia Sharma/ Er. Meenakshi/ Er.Pinki Tanwar**
Discipline:	**B.Tech CSE**
Semester:	**6th**
Subject:	**Compiler design (PC-CS-302A)**
Work Load (Lecture/Practical)Per week(in hours):	**Lecture - 3**

Sr No.	**Lecture No.**	**Theory**	
		Topic(Including Assignment/Test/Quiz)	**Pedagogy (PPT& Chalk-Board and Board/Video Recording /Activity/Case Study)**
1	L1	Unit 1 -Analysis of the source program, Phases of a compiler	Chalk-Board
2	L2	Cousins of the Compiler, Grouping of Phases	Chalk-Board
3	L3	Compiler construction tools	PPT
4	L4	Lexical Analysis –Regular Expression	Chalk-Board
5	L5	Introduction to Finite Automata, Regular expression,Conversion	Chalk-Board
6	L6	Role of Lexical Analyzer,	Chalk-Board
7	L7	Input Buffering, Specification of Tokens	
8		Class Test – Unit-1	Offline
9	L8	Unit 2 -Role of the Parser, Writing Grammars	Chalk-Board
10	L9	Context-Free Grammars	Chalk-Board
11	L10	Top Down Parsing with Backtracking	Chalk-Board
12	L11	Top Down Parsing without Backtracking	Chalk-Board
13	L12	Recursive Descent Parsing	Chalk-Board
14	L13	Non-Recursive Descent Parsing	Chalk-Board
15	L14	Bottom Up Parser Shift reduce parser	Chalk-Board
16	L15	Operator precedence parser	Chalk-Board
17	L16	LR Parser	Chalk-Board
18	L17	SLR Parser	Chalk-Board
19	L18	Canonical LR Parser	Chalk-Board
20	L19	LALR Parser	Chalk-Board
21		**(Assignment based on Bottom Up Parser)**	Offline

22	L20	Unit 3 -Synthesized attributes, Static Allocation, Stack Allocation	PPT & Chalk-Board
23	L21	Heap Allocation, Activation Trees, Symbol Table	PPT & Chalk-Board
24	L22	Intermediate languages, Declarations	PPT & Chalk-Board
25	L23	Assignment Statements	PPT & Chalk-Board
26	L24	Boolean Expressions	PPT & Chalk-Board
27	L25	DAG representation of Basic Blocks	PPT & Chalk-Board
28	L26	DAG representation of Basic Blocks	PPT & Chalk-Board
29	L27	A simple Code generator from DAG	PPT & Chalk-Board
30	L28	Issues in the design of code generator	PPT & Chalk-Board
31		Class Test Unit 3	Offline
32	L29	Unit 4- The target machine	PPT & Chalk-Board
33	L30	Issues in the design of code generator, Error Handling- Type checking	PPT & Chalk-Board
34	L31	Principal Sources of Optimization, Optimization of Basic Blocks	PPT & Chalk-Board
35	L32	Peephole Optimization,	PPT & Chalk-Board
36	L33	Introduction to Global Data Flow Analysis	PPT & Chalk-Board
37	L34	Source Language issues, Storage Organization	PPT & Chalk-Board
38	L35	Static, Heap Storage Management	PPT & Chalk-Board
39	L36	Access to non-Local Names, Parameter Passing	PPT & Chalk-Board
40		**Query Session Unit-4**	

Lesson Plan

Name of the Faculty:	**Dr. Gaurav Sharma/ Dr.Shabhnam/ Er. Kamal**
Discipline:	**B.Tech (CSE)**
Semester:	**6th**
Subject:	**Computer Networks(PC-CS304A)**
Work Load (Lecture/Practical) per week (In hours):	**Lecture-3,Practical -2**

S.No	Lecture No.	Theory	
		Topic (Including Assignment/Test/Quiz)	**Pedagogy (PPT/Chalk and Board/Video Recording /Activity/Case Study)**
1.	L1.	Introduction To Computer Networks: Data Communication System And Its Components	Chalk and Board and PPT
2.	L2.	Types Of Computer Networks: LAN, MAN, WAN(Teaching and assignment).	PPT, Chalk and Board
3.	L3.	Wireless And Wired Networks	Chalk and Board and PPT
4.	L4.	Data Flow, Computer Network And Its Goals	Chalk and Board and PPT
5.	L5.	Broadcast And Point-To-Point Networks	Chalk and Board and PPT
6.	L6.	Network Topologies, Protocols	PPT, Chalk and Board
7.	L7.	Interfaces And Services, ISO-OSI Reference Model	Chalk and Board and PPT
8.	L8.	TCP/IP Architecture	Chalk and Board and PPT
9.		**Assignment Topic: Unit-1 and Test**	**On Paper and Oral Test**
10.	L9.	Physical Layer: Concept Of Analog & Digital Signal	PPT, Chalk and Board
11.	L10.	Bandwidth, Transmission Impairments	Chalk and Board and PPT
12.	L11.	:Attenuation, Distortion, Noise,	Chalk and Board and PPT
13.	L12.	Multiplexing: Frequency Division, Time Division, Wavelength Division	Chalk and Board and PPT
14.	L13.	Transmission Media: Twisted Pair, Coaxial Cable, Fiber Optics, Wireless Transmission (Radio, Microwave, Infrared)	Chalk and Board and PPT
15.	L14.	Switching: Circuit Switching, Message Switching, Packet Switching & Comparisons	Chalk and Board and PPT
16.	L15.	Narrowband ISDN, Broadband ISDN.	Chalk and Board and PPT

17.	L16.	Data Link Layer: Error Multiple access Protocols, Error Detection & Correction Methods	Chalk and Board and PPT
18.	L17.	Flow Control; Protocols: Stop & Wait ARQ, Go-Back-N ARQ,Sliding Window Protocols,Selective Repeat ARQ,	Chalk and Board and PPT
19.	L18.	HDLC; Medium Access Sub Layer: Point To Point Protocol	Chalk and Board and PPT
20.	L19.	Control, Types Of Errors, Framing (Character And Bit Stuffing), FDDI, Token Bus, Token Ring; Reservation, Polling,(Teaching and assignment).	Chalk and Board and PPT
21.	L20.	Pure Aloha, Slotted Aloha, Csma, Csma/Cd, Fdma, Tdma, Cdma, Llc ,Traditional Ethernet, Fast Ethernet	Chalk and Board and PPT
22.		**Assignment Topic: Unit-2 and Test**	**On Paper and Oral test**
23.	L21.	Network Devices-Repeaters, Hubs, Switches, Bridges, Router, Gateway, Network Layer: Addressing: Internet Address, Sub-Netting, Protocols	Chalk and Board and PPT
24.	L22.	Routing Techniques, Static Vs. Dynamic Routing, Routing Table, DHCP, IEEE Standards 802.X	Chalk and Board and PPT
25.	L23.	Routing Algorithms: Shortest Path Algorithm	Chalk and Board and PPT
26.	L24.	Flooding, Distance Vector Routing, Link State Routing	Chalk and Board and PPT
27.	L25.	Arp, Rarp, Ip, Icmp, Igmp, Ipv6, Unicast And Multicast Routing Protocols , ATM	Chalk and Board and PPT
28.	L26.	Transport Layer: Process To Process Delivery, SNMP	Chalk and Board and PPT
29.	L27.	Bluetooth, Email	Chalk and Board and PPT
30.	L28.	S/MIME, IMAP, Network, TCP, RPC	Chalk and Board and PPT
31.	L29.	Congestion Control Algorithm: Leaky Bucket Algorithm,	Chalk and Board and PPT
32.	L30.	Token Bucket Algorithm, Choke Packets	Chalk and Board and PPT
33.	L31.	Quality Of Service: Techniques To Improve Qos, UDP Application Layer: DNS,SMTP	Chalk and Board and PPT
34.	L32	Ftp, Http & Www; Firewalls, SNMP Bluetooth, Email,	Chalk and Board and PPT

35.	L33	S/MIME, IMAP,Network Security	Chalk and Board and PPT
36.	L34	Security: Cryptography, User Authentication, Security Protocols In Internet	Chalk and Board and PPT
37.	L35	Public Key Encryption algorithm	Chalk and Board and PPT
38.	L36	Digital Signatures	Chalk and Board and PPT

Lesson Plan

Name of the Faculty:	**Dr. Meenakshi/ Er. Pinki Tanwar/ Er. Mukesh Kumar**
Discipline:	**B.Tech (CSE)**
Semester:	**6th**
Subject:	**Mobile Computing (PE-CS-S312A)**
Work Load (Lecture/Practical) per week (In hours):	**Lecture-3**

S.No	**Lecture No.**	**Theory**	
		Topic (Including Assignment/Test/Quiz)	**Pedagogy (PPT/Chalk and Board/Video Recording /Activity/Case Study)**
1	L1	Introduction, issues in mobile computing	PPT
2	L2	Overview of wireless telephony: cellular concept	PPT
3	L3	Mobile computing Architecture	Chalk and Board
4	L4	Design considerations for mobile computing,	PPT
5	L5	Mobile Computing through Internet, Making existing applications mobile enabled	PPT
6	L6	GSM: air-interface, channel structure	Chalk and Board
7	L7	location management: HLR-VLR	PPT
8	L8	Handoffs and types of handoffs	PPT
9	L9	Channel allocation in Cellular systems	Chalk and Board
10	L10	WCDMA, 3G, 4G	PPT
11	L11	GPRS	
12		**Assignment Unit 1**	
13	L12	Wireless Networking, Wireless LAN Overview: MAC issues	Chalk and Board
14	L13	Traditional TCP	Chalk and Board
15	L14	IEEE 802.11: System architecture and protocol architecture	Chalk and Board
16	L15	Blue Tooth	PPT
17	L16	Wireless multiple access protocols, TCP over wireless	PPT
18	L17	Wireless applications, Data broadcasting	PPT
19	L18	Mobile IP, WAP : Architecture,	PPT
20	L19	Issues improvements in WAP, WAP applications	PPT
21	L20	Data management issues	PPT
22	L21	Data replication for mobile computers	Chalk and Board
23	L23	Adaptive clustering for mobile wireless networks	PPT

24	L24	File system, Disconnected operations	PPT
25	L25	Mobile Agents computing, security and fault tolerance	Chalk and Board
26	L26	Transaction processing in mobile computing environment	PPT
27	L27	Cloud Architecture model, Types of Clouds: Public Private & Hybrid Clouds.	Chalk and Board
28	L28	Resource management and scheduling.	PPT
29	L29	Clustering, Data Processing in Cloud.	Chalk and Board
29	L30	Introduction to Map Reduce for Simplified data processing on Large clusters	Chalk and Board
30		**Assignment from Unit3**	
31	L31	Ad hoc networks	PPT
32	L32	localization, MAC issues	PPT
33	L33	Destination sequenced distance vector routing (DSDV)	Chalk and Board
34	L34	Dynamic source routing (DSR)	PPT
35	L35	AODV (Ad-hoc on demand distance vector routing)	PPT
36	L36	TORA (Temporary ordered routing algorithm)	Chalk and Board
37	L37	QoS in Ad Hoc Networks, applications	PPT
38	L38	Radio Interface (Um Interface)	PPT

Lesson Plan

Name of the Faculty:	**Dr. Bhawna/ Er. Upma/ Er. Ikshita**
Discipline:	**B.Tech(CSE)**
Semester:	**6th**
Subject:	**Management Information System(OE-CS-304A)**
Work Load(Lecture/Practical) per week (In hours):	**Lecture-3**

S. No	**Lecture No.**	**Theory**	
		Topic(Including Assignment/Test/Quiz)	**Pedagogy (PPT/Chalk and Board/Video Recording /Activity/Case Study)**
1.	L1.	Definition information system, role and impact of MIS.	Chalk-Board
2.	L2.	The challenges of Information system, Nature of MIS, Characteristics of MIS, Myths regarding MIS.	Chalk-Board
3.	L3.	Requirements of MIS, Problems & Solutions in implementing MIS, Benefits of MIS.	PPT & Chalk-Board
4.	L4.	Limitations of MIS, Significance of MIS, Components of MIS.	PPT & Chalk-Board
5.	L5.	Role of MIS, Major Management challenge to building and using information system in Organization.	PPT & Chalk-Board
6.	L6.	Functions of management.	PPT & Chalk-Board
7.	L7.	**Revised Unit-1**	PPT & Chalk-Board
8.		**Assignment-1**	Offline
9.	L8.	The relationship between Organization and Information System.	PPT & Chalk-Board
10.	L9.	Information needs of different organization levels: Information concept as quality product.	PPT & Chalk-Board
11.	L10.	Classification and value of information.	PPT
12.	L11.	Methods of data and information collection.	PPT & Chalk-Board
13.	L12.	Strategic role of information system, Salient features of Organization.	PPT & Chalk-Board
14.	L13.	Information, management and decision making,	PPT & Chalk-Board
15.	L14.	How Organization affect Information Systems, How Information system affect Organization.	PPT & Chalk-Board
16.	L15.	Ethical and Social impact of information system.	PPT & Chalk-Board
17.	L16.	**Revised Unit-2**	PPT & Chalk-Board
18.		**Assignment-2**	Offline

19.	L17.	Foundation Concepts Information systems in Business: Information system and technology.	PPT & Chalk-Board
20.	L18.	Business Applications, Development and Management.	PPT & Chalk-Board
21.	L19.	The internet worked E-business Enterprise: Internet and Extranet in business.	PPT & Chalk-Board
22.	L20.	Electronic Commerce System: Electronics commerce Fundamentals.	PPT & Chalk-Board
23.	L21.	Commerce Application and issues.	PPT & Chalk-Board
24.	L22.	E-business Decision Support: Decision support in E-Business.	PPT & Chalk-Board
25.	L23.	Artificial Intelligence Technologies in business.	PPT & Chalk-Board
26.	L24.	Technical Foundation of Information System: Computers and information processing.	PPT & Chalk-Board
27.	L25.	Computer Hardware, Computer software, Managing data resources, Telecommunication.	PPT & Chalk-Board
28.	L26.	Enterprise: wide computing and networking.	PPT & Chalk-Board
29.	L27.	**Revised Unit-3**	PPT & Chalk-Board
30.		**Assignment-3**	Offline
31.	L28.	Strategic Information System: Introduction, Characteristics of Strategic Information Systems.	PPT & Chalk-Board
32.	L29.	Strategic Information Systems (SISP), Strategies for developing an SIS.	PPT & Chalk-Board
33.	L30.	Potential Barriers to developing a Strategic Information System (SIS).	PPT & Chalk-Board
34.	L31.	Decision Support System (DSS): Decision making concepts, methods, tools and procedures.	PPT & Chalk-Board
35.	L32.	Managing Information Resources: Introduction, IRM.	PPT & Chalk-Board
36.	L33.	Principal of Managing Information Resources, IRM functions.	PPT & Chalk-Board
37.	L34.	Computer Security: Introduction, Computer Security.	PPT & Chalk-Board
38.	L35.	Types of Computer Security.	PPT & Chalk-Board
39.	L36.	Disaster Recovery Plan.	PPT & Chalk-Board
40.	L37.	**Revised Unit-4**	PPT & Chalk-Board