Lesson Plan (Odd Semester)

Name of the Faculty : Rakesh Gupta
Discipline : Computer Engineering
Department : Computer Engineering
Semester : 5th
Subject : Computer Networks
Lesson Plan Duration : 15 weeks (from July, 2018 to Dec., 2018)

****Work load (Lecture / Practical) per week(in hours): Lectures-04, practicals -02**

Week	Theory		Practical	
	Lect. day	Topic (Including assignment / test)	Pract. Day	Topic
1st	1st	**1. Networks Basics** :Concept of network Models of network computing	1st	Recognize the physical topology of a network
	2nd	Networking models Peer-to –peer Network Server Client Network		
	3rd	Network Services	2nd	Recognize the cabling (coaxial, OFC, UTP, STP) of a network
	4th	Concept of switching Switching Techniques		
2nd	1st	Revision	1st	Recognition and use of various types of connectors RJ-45, RJ-11
	2nd	**2. OSI Model** : OSI Reference Model		
	3rd	OSI Reference Model	2nd	Recognition and use of various types of connectors BNC and SCST
	4th	Function of various layers in OSI Reference Model		
3rd	1st	Function of various layers in OSI Reference Model	1st	Recognition of network devices like Switches, Hub of access points for Wi-Fi
	2nd	Function of various layers in OSI Reference Model		
	3rd	Revision	2nd	Recognition of network devices like Routers of access points for Wi-Fi
	4th	**3. Introduction to TCP/IP** : Concept of physical addressing		
4th	1st	Concept of logical addressing	1st	Making of cross cable
	2nd	IPV4 addressers- Address space, Notations		
	3rd	Classful Addressing, Classless Addressing, Network Address Translation	2nd	Making of straight cable
	4th	Different classes of IP addressing		
5th	1st	special IP address	1st	Install a network interface card in a workstation.
	2nd	Sub netting		
	3rd	super netting	2nd	Configure a network interface card in a workstation.
	4th	Loop back concept		
6th	1st	IPV4 packet Format	1st	Identify the IP address of a workstation and the class of the address
	2nd	IPV6 packet Format		
	3rd	Revision	2nd	Configure the IP Address on a workstation
	4th	**4. Network Architecture** :Ethernet Specification		
7th	1st	Ethernet Standardization	1st	Revision
	2nd	10 Mbps (Traditional Ethernet)		

	3rd	10 Mbps (Fast Ethernet)	2nd	Managing user accounts in windows
	4th	1000 Mbps (Gigabit Ethernet)		
8th	1st	Introduction to Media Connectivity	1st	Managing user accounts in LINUX
	2nd	Leased lines		
	3rd	ISDN	2nd	Study of sub netting of IP address
	4th	PSTN		
9th	1st	RF	1st	Demonstration of sub netting of IP address
	2nd	DSL		
	3rd	VSAT	2nd	Revision
	4th	Optical and IPLC		
10th	1st	Revision	1st	Use of Netstat
	2nd	**5. Connectivity devices :**Network connectivity Devices		
	3rd	NICs	2nd	Use of Netstat and its options.
	4th	Hubs, bridges		
11th	1st	Repeaters, switches	1st	Revision
	2nd	Multiplexers		
	3rd	Modems	2nd	Connectivity troubleshooting using PING
	4th	Routers		
12th	1st	Gateways	1st	Connectivity troubleshooting using IPCONFIG
	2nd	Revision		
	3rd	**6. Network Trouble Shooting Techniques :** Introduction	2nd	Connectivity troubleshooting using IFCONFIG
	4th	Trouble Shooting process		
13th	1st	Trouble Shooting Tools: PING	1st	Revision
	2nd	IPCONFIG		
	3rd	IFCONFIG	2nd	Installation of Network Operating System(NOS)
	4th	NETSTAT		
14th	1st	TRACEROOT	1st	Installation of Network Operating System(NOS)
	2nd	Wiresharp/ Dsniffer/ Pcop		
	3rd	Revision	2nd	Installation of Network Operating System(NOS)
	4th	**7. IEEE :** 802.11- Architecture		
15th	1st	802.11- Architecture	1st	Visit to nearby industry for latest networking techniques
	2nd	Bluetooth- Architecture		
	3rd	Bluetooth- Architecture	2nd	Revision
	4th	Revision		

Lesson Plan (Odd Semester)

Name of the Faculty : Dharmveer Saini
Discipline : Computer Engineering
Department : Computer Engineering
Semester : 5th
Subject : Software Engineering
Lesson Plan Duration : 15 weeks (from July, 2018 to Dec., 2018)
****Work load (Lecture / Practical) per week(in hours): Lectures-03, practicals -NIL**

Theory

Week	Lecture day	Topic (Including assignment / test)
1st	1st	Introduction to Software Engineering: Introduction, Programmes v/s Software Products
	2nd	Emergence of Software Engineering- Early Computer Programming, High- level
	3rd	Control flow based Design
2nd	4th	Data Structure Oriented Design
	5th	Object Oriented Design
	6th	Revision of unit I
3rd	7th	Software Life Cycle Models
	8th	Requirement of Life Cycle Model
	9th	Classic Waterfull Model
4th	10th	Advantages and Limitations of Classical model
	11th	Prototyping Model
	12th	Evolutionary Model
5th	13th	Spiral Model
	14th	Comparison of different Life Cycle Models
	15th	Revision of Unit II
6th	17th	Software Planning: Responsibilities of Software Project Manager
	18th	Metrics for Project Size Estimation- LOC(Lines of Code)
	19th	Function Point Metric
7th	20th	Project estimation Techniques: Need and Types
	21st	COCOMO Model and its variants.
	22nd	Halstead's Software
8th	23rd	Revision of Unit III
	24th	Class Test of Unit I, II, III
	25th	Requirement Analysis and Specification
9th	26th	Requirement gathering and Analysis
	27th	Software Requirement Specifications(SRS)
	28th	Characteristics of good SRS
10th	29th	Formal Specification Technique
	30th	Revision of Unit IV
	31st	Software Design and Implementation
11th	32nd	Characteristics and features of good Software Design Cohesion and Coupling,
	33rd	Software design Approache- Function Oriented Design
12th	34th	Software design Approache- Object Oriented Design
	35th	Structured Coding Techniques
	36th	Coding Styles, documentation
13th	37th	Software Testing:Concept of Testing
	38th	Verification v/s Validations
	39th	Types of testing : Unit Testing
14th	41st .	BlackBox Testing,White Box Testing
	42nd	Integration testing
	43rd	System testing
15th	44th	Software Quality and Maintenance
	45th	Introduction to Capability Maturity Model
	46th	ISO9000 and Six Sigma, Configuration

Name of the Faculty : Krishan Singh
Discipline : Computer Engineering
Department : Computer Engineering
Semester : 5th
Subject : RDBMS
Lesson Plan Duration : 15 weeks (from July, 2018 to Dec., 2018)
****Work load (Lecture / Practical) per week(in hours): Lectures-03, practicals -04**

Week	Theory		Practical	
	Lect. day	Topic (Including assignment / test)	Pract. Day	Topic
1st	1st	**1. Relational Model**: Relational Model Concepts: Domain, Attributes, Tuples and Relations.	1st	Installing SQL Server.
	2nd	Relational constraints and relational database schemes	2nd	
	3rd	Domain constraints, Key constraints and constraints on Null.	3rd	
			4th	UnInstalling SQL Server.
2nd	1st	Relational databases and relational database schemes	1st	Creating database objects.
	2nd	Entity integrity, referential integrity and foreign key	2nd	Creating database objects.
	3rd	**2. Functional dependencies and Normalization:** Concept of Normalization, Need of Normalization,	3rd	Creating database objects.
			4th	Creating database objects.
3rd	1st	Non-loss decomposition and functional dependencies, Trivial and Non Trivial dependencies	1st	Creating database objects.
	2nd	Closure of a set of dependencies and attributes.	2nd	Modifying database objects.
	3rd	Normalization: First, Second and Third normal forms, Boyce/Codd normal form	3rd	Modifying database objects.
			4th	Modifying database objects.
4th	1st	Multi Valued dependency 5 NF.	1st	Modifying database objects.
	2nd	**3. Relational Calculus and Algebra:** Operations, Tuple Calculus, Domain Calculus	2nd	Modifying database objects.
	3rd	Example of Query language based on tuple	3rd	Modifying database objects.
			4th	Modifying database objects.
5th	1st	Example of Query language based on domain	1st	Modifying database objects.
	2nd	**4. SQL Components and Data Definition Language:** SQL's basic objects, data types	2nd	Modifying database objects.
	3rd	Aggregate functions	3rd	Removing database objects.
			4th	Removing database objects.
6th	1st	Scalar functions, null values	1st	Working with queries involving joins, correlation
	2nd	Creating database objects	2nd	Working with queries involving joins, correlation
	3rd	Modifying database objects	3rd	Working with queries involving joins, correlation
			4th	Working with queries involving joins, correlation
7th	1st	Removing database objects.	1st	Working with queries involving joins, correlation
	2nd	**5. Queries and Data Manipulation Language :** Insert statement	2nd	Working with Subqueries
	3rd	Update statement	3rd	Working with Subqueries
			4th	Working with Subqueries
8th	1st	Delete statement, Select statement	1st	Working with Subqueries

	2nd	Queries and sub- queries, different clauses of select statement	2nd	Working with Subqueries
	3rd	Join operator	3rd	Working with set operators.
			4th	Working with set operators.
9th	1st	Correlated sub-queries, derived tables.	1st	Working with set operators.
	2nd	**6. Stored procedures and User defined functions :** Procedural extensions	2nd	Working with set operators.
	3rd	IF statement	3rd	Working with set operators.
			4th	Creating and using stored procedures
10th	1st	WHILE statement	1st	Creating and using stored procedures
	2nd	Local variables	2nd	Creating and using stored procedures
	3rd	Try and catch statements	3rd	Creating and using stored procedures
			4th	Creating and using stored procedures
11th	1st	Stored procedures	1st	User defined functions.
	2nd	User defined functions, system catalog.	2nd	User defined functions.
	3rd	**7. Indexes, Views and Security:** Guidelines for creating and using indexes	3rd	User defined functions.
			4th	User defined functions.
12th	1st	Creating and using views	1st	User defined functions.
	2nd	Advantages and disadvantages of views, security system of database engine, database security	2nd	Creating indexes.
	3rd	Roles, authorization: grant, deny, revoke statements.	3rd	Creating indexes.
			4th	Creating indexes.
13th	1st	**8. Triggers:** Introduction to triggers	1st	Creating and using views
	2nd	Creating and using triggers	2nd	Creating and using views
	3rd	Creating and using triggers	3rd	Creating and using views
			4th	Using and understanding grant statement
14th	1st	Database level triggers	1st	Using and understanding grant statement
	2nd	Database level triggers	2nd	Using and understanding revoke statement
	3rd	Server level triggers	3rd	Using and understanding deny statement
			4th	Creating database triggers.
15th	1st	Server level triggers	1st	Creating database triggers.
	2nd	Revision	2nd	Using database triggers
	3rd	Revision	3rd	Using database triggers
			4th	Using database triggers

Lesson Plan of Odd Semester				
	Name of the Faculty : Ajay Singh			
	Discipline : Computer Engg.			
	Semester : 5th			
	Subject : VISUAL BASIC			
	Lesson Plan Duration : 16 Weeks (From July, 2018 to Nov, 2018)			
Work Load (Lecture/Practical) per week (In Hours): Lectures-03, Practical - 06)				
		Theory		**Practical**
Week	**Lecture**	**Topic(Including assignment/test)**	**Practical**	
	Day		Day	
1st	1st	Introduction to Visual Basic	1st	Introduction to Visual Basic
	2	Features Visual Basic	2nd	Introduction Features of VB
	3	history of Visual Basic		
2nd	4	Revision	3rd	Exercise on all the menus of
				opening window of VB
	5	Assignment		
	6	applications of VB	4th	Revision
3rd	7	concept of integrated development	5th	Practical checking and
		environment (IDE)		testing
	8	Assignment		
	9	project application like standard Exe	6th	Exercise on opening
				projects like standard Exe
4th	10	ActiveX EXE application , ActiveX DLL	7th	Active-X EXE and Active-X
				control
	11	Class test	8th	Revision
	12	VB Structure Variable declaration types		
5th	13	user defined data types - scope and life of	9th	Exercise on all basic
		a variable		controls
	14	Arrays - constructors		
	15	control flow statements	10th	Revision
6th	16	Procedures and functions.	11th	Practical checking and
				testing
	17	Revision		
	18	Test	12th	Exercise on design form like
				calculators,
7th	19	Designing the User Interface	13th	Practical checking and
				testing
	20	Design aspects of VB forms		
	21	Elements of user Interface	14th	Exercise on design form like
				traffic lights
8th	22	properties of controls -	15th	Practical checking and
		textbox, label, command button,		testing
	23	check box, list box, picture, image shape		
		timer		
	24	designing forms and displaying messages	16th	Exercise on small
		using above controls -		application using

				appropriate commands
9th	25	control arrays	17th	Practical checking and
				testing
	26	Class test		
	27	Menus and Common Dialogue Control	18th	Exercise on small
				application using
				appropriate commands
10th	28	Creating menus at design time using	19th	Practical checking and
		menu design window		testing
	29	control menus and runtime		
	30	create shortest keys for pop up menus	20th	Writing programs using
				arrays
11th	31	Revision	21th	Practical checking and
				testing
	32	Common Dialogue control.		
	33	Display date, time,	22th	Exercise on menus
12th	34	string type conversion and Printing	23th	Practical checking and
		Information		testing
	35	Data reports and environments		
	36	display tabular data in report form	24th	Exercise on Common
				Dialogue control
13th	37	fundamentals of	25th	Revision
		printing		
	38	printing with print form method.		
	39	Data Base Programming	26th	Practical checking and
				testing
14th	40	Connecting with database, using DAO,	27th	Exercise on creating reports
	41	Connecting with database, using RDO		
	42	Connecting with database, using ADO	28th	Practical checking and
				testing
15th	43	Revision and Class test	29th	Exercise on Data base
				connectivity
	44	Working with inbuilt Active X,		
	45	Windows common control,	30th	Practical checking and
				testing
16th	46	creating own Active X	31th	Exercise on creating own
		through Active X control,		active X, component
	47	Active X EXE,		
	48th	difference between EXE and DLL	32th	Practical checking and Testing