Lesson Plan

Name of the Faculty : Mr. Deepak Kumar

[Discipline :](file:///C:\Users\LAB6%20PC19\Desktop\6th%20sem%20L%20P\Network%20Security.docx#bookmark2) Computer Engg.

[Semester :](file:///C:\Users\LAB6%20PC19\Desktop\6th%20sem%20L%20P\Network%20Security.docx#bookmark3) 5th

**Subject** : Computer Network

Lesson Plan Duration : 15 weeks (from July 2018 to Nov 2018)

Work Load (Lecture / Practical) per week (in hours): Lectures-03, Practical-03

| **Week** | **Theory** | | **Practical** | |
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| **Lecture day** | **Topic (including assignment / test)** | **Practical Day** | **Topic** |
| **1st** | **1st** | Networks Basics | 1st | Recognize the physical topology and cabling (coaxial, OFC, UTP, STP) of a network.  Recognition and use of various types of connectors RJ-45, RJ-11,BNC and SCST |
| **2nd** | Concept of network  - Models of network computing |
| **3rd** | - Networking models |
| **2nd** | **4th** | - Peer-to –peer Network |
| **5th** | Server Client Network  - Network Services |
| **6th** | Concept of switching  - Switching Techniques |
| **3rd** | **7th** | OSI Model | 2nd | Recognition of network devices (Switches, Hub, Routers of access points for Wi-Fi  Making of cross cable and straight cable |
| **8th** | OSI Reference Model |
| **9th** | OSI Reference Model |
| **4th** | **10th** | OSI Reference Model |
| **11th** | OSI Reference Model |
| **12th** | OSI Reference Model |
| **5th** | **13th** | OSI Reference Model |
| **14th** | Function of various layers in OSI Reference Model |
| **15th** | Function of various layers in OSI Reference Model |
| **6th** | **16th** | - Function of various layers in OSI Reference Model |
| **17th** | - Function of various layers in OSI Reference Model | 3rd | Install and configure a network interface card in a workstation  Identify the IP address of a workstation and the class of the address and configure the IP  Address on a workstation |
| **18th** | - Function of various layers in OSI Reference Model |
|  |  |  |  |  |
| **7th** | **19th** | Introduction to TCP/IP | 4th | Managing user accounts in windows and LINUX |
| **20th** | Concept of physical and logical addressing  - IPV4 addressers- Address space,  . |
| **21st** | Notations, Classful Addressing, Classless  Addressing, Network Address Translation |
| **8th** | **22nd** | - Different classes of IP addressing, special IP address |
| **23rd** | - Different classes of IP addressing, special IP address |
| **24th** | - Sub netting and super netting |
| **9th** | **25th** | - Sub netting and super netting |
| **26th** | - Loop back concept  - IPV4 and IPV6 packet Format |
| **27th** | - Loop back concept  - IPV4 and IPV6 packet Format | 5th | Study and Demonstration of sub netting of IP address  Use of Netstat and its options.  Connectivity troubleshooting using PING, IPCONFIG, IFCONFIG |
| **10th** | **28th** | Network Architecture |
| **29th** | Ethernet Specification and Standardization: |
| **30th** | 10 Mbps (Traditional Ethernet), |
| **11th** | **31st** | 10 Mbps (Fast Ethernet) and 1000 Mbps (Gigabit  Ethernet), Introduction to Media) |
| **32nd** | Connectivity (Leased lines, ISDN, PSTN, RF, |
| **33rd** | DSL, VSAT, Optical and IPLC |
| **12th** | **34th** | Connectivity devices |
| **35th** | Network connectivity Devices  100  - NICs  - Hubs, bridges  - Repeaters, switches  - Routers  - Gateways |
| **36th** | Multiplexers  - Modems |
| **13th** | **37th** | Network Trouble Shooting Techniques | 6th | Installation of Network Operating System(NOS)  Visit to nearby industry for latest networking techniques |
| **38th** | Trouble Shooting process  - Trouble Shooting Tools:, , |
| **39th** | PING,IPCONFIG |
| **14th** | **40th** | PING,IPCONFIG |
| **41st** | IFCONFIG, NETSTAT |
| **42nd** | TRACEROOT, Wiresharp/ Dsniffer/ Pcop |
| **15th** | **43rd** | IEEE 802.11- Architecture |
| **44th** | IEEE 802.11- Architecture |
| **45th** | Bluetooth- Architecture |