

GOVERNMENT GIRLS POLYTECHNIC BILASPUR

DEPARTMENT OF COMPUTER SCIENCE

LESSON PLAN

Session : Jan-June 2025

Session start date as per University Calendar-20/01/2025

Course Name : COMPUTER NETWORK LAB

Course Code : 2033462(033)

Name of Subject teacher : ASHA MIRI

Lecture plus Tutorial/Week : 3

SESSION:Jan-June 2025

Discipline : CSE

Semester : 4th

Class room Instruction Start Date :- 10/02/2025

| S.No. | Topics/Subtopics to be covered under this unit | No. of periods planned | Actual no. of period taken | Date of class conduction | Remarks if any |
|-------|--|------------------------|----------------------------|--------------------------|----------------|
| 1 | Demonstrate the topology used with the computer network. | 4 | 04 | 10/02/25 17/02/25 | |
| 2 | Prepare and testing a straight UTP cable for data transfer. | 2 | 02 | 18/02/25 | |
| 3 | Prepare and testing a cross UTP cable for data transfer. | 2 | 02 | 24/02/25 | |
| 4 | Perform different types of mode of communications | 2 | 02 | 25/02/25 | |
| 5 | Prepare a layout demonstrating data transfer aspects as per OSI model between computing devices. | 2 | 04 | 24/03/25 15/04/25 | |
| 6 | Install, configure and Testing of Repeaters for networking. | 2 | 02 | 21/04/25 | |
| 7 | Explain different types of transmission media. | 2 | 02 | 22/04/25 | |

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|---------------------|---|-----------|-----------|----------------------|
| 8 | Install, configure and Testing of Router for networking. | 4 | 04 | 28/04/25 29/04/25 |
| 9 | Install, configure and Testing of Gateway for networking. | 4 | 04 | 05/05/25 06/05/25 |
| 10 | Install and configure a network adapter of a computer system. | 4 | 04 | 19/05/25 20/05/25 |
| Total Period | | 28 | 30 | |

Class room Instruction End date:- 20/05/2025
 Subject Teacher : Asha Miri

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| LESSON PLAN | | | | | |
|--|--|------------------------|----------------------------|--|---------------------|
| SESSION : Jan-June 2025 | | | | | |
| Discipline : CSE | | Semester : 4th | | Class room Instruction Start Date : 03/02/25 | |
| Course Outcomes. | Topics/Subtopics to be covered under this unit | No. of periods planned | Actual no. of period taken | Date of class conduction | Use of AV resources |
| CO-1 Explain basics of Computer Networking | Definition and history of networks. | 1 | 01 | 03/02/25 | |
| | Application of computer networks. | | | | |
| | Standard Organization and protocols. | 1 | 01 | 04/02/25 | |
| | Line Configurations Point to Point Connection Multipoint Connection | 1 | 01 | 05/02/25 | |
| | Network Topology Bus Topology Ring Topology Star Topology Mesh Topology Hybrid Topology | 1 | 02 | 07/02/25 | |
| | | | | 08/02/25 | |
| | Categories of Networks 1) Based on physical scope a) LAN b) MAN c) WAN | 2 | 02 | 10/02/25 | |
| | | | | 14/02/25 | |
| 2) Based on connection a) Connection oriented b) Connection less | 1 | 01 | 15/02/25 | | |
| Assignment Given Date- 15/02/2025 | | | | | |

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|--|--|---|----|----------|
| CO-2 Describe Reference models of computer network with its function in each layer. | OSI models and its main function, feature of each layer | 2 | 03 | 17/02/25 |
| | Physical Layer | | | |
| | Data Link Layer | | | 18/02/25 |
| | Network Layer | | | 24/02/25 |
| | Transport Layer | | | |
| | Session Layer | | | |
| | Presentation Layer | | | |
| | Application Layer | | | |
| | TCP/IP models and its main function, feature and protocol of each layers | 2 | 02 | 25/02/25 |
| | Physical Layer | | | |
| | Network Layer | | | 28/02/25 |
| | Transport Layer | | | |
| | Application Layer | | | |
| | Compare OSI and TCP/IP models | 1 | 01 | 10/03/25 |

Assignment Given Date- 10/03/2025

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| CO-3 Prepare different type of Transmission mediator data communication. | Basic Concept- Communication channels characteristics | 2 | 02 | 22/03/25 |
| | Band Width | | | |
| | Attenuation | | | 24/03/25 |
| | Bit rate and Baud rate | | | |
| | Types of transmission media | 2 | 02 | 28/03/25 |
| | 1) Guided media | | | |
| a) Twisted pair | 11/04/25 | | | |
| b) Coaxial cable | | | | |
| c) Optical Fiber | | | | |
| 2) Unguided media | 2 | 03 | 15/04/25 | |
| a) Electromagnetic spectrum | | | | |
| b) Radio Transmission | | | 21/04/25 | |
| c) Microwave Transmission | | | 22/04/25 | |
| d) Infrared Transmission | | | | |
| e) Setellite Communication | | | | |
| Mode of Communication | 1 | 01 | 25/04/25 | |
| 1) Simplex | | | | |
| 2) Half Duplex | | | | |
| 3) Full Duplex | | | | |

Assignment Given Date- 25/04/2025

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| CO-4 install various communication devices of networking for data communication. | Network Communication Devices | 2 | 02 | 28/04/25 |
| | 1) Repeater | | | |
| | 2) Hub | | | 29/04/25 |
| | 3) Switch | | | |
| | 4) Router | 2 | 02 | 02/05/25 |
| | 5) Bridge | | | |
| | 6) Access Point | | | |
| | 7) Gateway | 2 | 02 | 05/05/25 |
| | 8) RS 232 | | | |
| | 9) RJ 45 and RJ 11 | | | 06/05/25 |
| 10) NIC | 2 | 02 | 06/05/25 | |
| 11) Bluetooth | | | | |
| Wifi IEEE 802.11 | | | 07/05/25 | |

Assignment Given Date- 07/05/2025

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|---|----------------------------|---|----|----------|--|
| CO-5 Establish Subnet, IPv4 and IPv6 in computer networks and different protocols. | IP Protocol- IPv4 and IPv6 | 1 | 01 | 09/05/25 | |
| | Addressing Schemes | 2 | 02 | 09/05/25 | |
| | Subnet and Sub masking | | | 10/05/25 | |
| | DNS | 1 | 02 | 19/05/25 | |
| | Email | | | | |
| | FTP | | | | |
| | HTTP | | | | |
| | TCP and UDP | 2 | 02 | 20/05/25 | |
| | NETBIOS Protocol | | | | |
| | ARP and RARP | | | | |
| ICMP | | | | | |
| SMTP | | | | | |

Assignment Given Date- 20/05/2025

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| Total Class | 33 | 37 | | |
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Class room Instruction End date:- 20/05/2025

Subject Teacher : Asha Miri

Ashamiri

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