**NAME OFTHE FACULTY** : HIMANSHU YADAV

**DISCIPLINE** : ECE

**SEMESTER** : 5th

**SUBJECT** : COMPUTER NETWORKS

**LESSONPLANDURATION** : 15 weeks (from Sep-2022 to Jan-2023)

WORK LOAD (LECTURE/PRACTICAL) PER WEEK (IN HOURS):- LECTURE-**04**, PRACTIACL-- PER GROUP

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| **WEEK** | **THEORY** | |
| **Lecture**  **/ Hrs** | **TOPIC**  **(Including Assignment/Test/Quiz)** |
| 1st | 1 | What isnetwork |
|
| 2 | Peer-to –peerNetwork |
|
| 3 | Server ClientNetwork |
| 4 | LAN, MAN andWAN |
|
| 2nd | 5 | NetworkServices |
|
| 6 | Topologies |
|
| 7 | Topologies |
| 8 | Topologies |
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| 3rd | 9 | SwitchingTechniques |
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| 10 | SwitchingTechniques |
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| 11 | OSIModelStandards |
| 12 | OSI ReferenceModel |
|
| 4th | 13 | OSI Physical layerconcepts |
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| 14 | OSI Data-link layerconcepts |
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| 15 | OSI Networks layerconcepts |
| 16 | OSI Networks layerconcepts |
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| 5th | 17 | OSI Transport layerconcepts |
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| 18 | OSI Session layerconcepts |
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| 19 | OSI presentation layerconcepts |
| 20 | OSI Application layerconcepts |
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| 6th | 21 | **Assignment-1** |
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| 22 | **Sessional Test-1** |
|
| 23 | IntroductiontoTCP/IP  Concept of physical and logicaladdressing |
| 24 | Different classes of IP addressing, special IPaddress |
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| 7th | 25 | Different classes of IP addressing, special IPaddress |
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| 26 | Sub netting and supernetting |
|
| 27 | Loop backconcept |
| 28 | IPV4 and IPV6 packetFormat |
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| 8th | 29 | IPV4 and IPV6 packetFormat |
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| 30 | Configuring IPV4 andIPV6 |
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| 31 | Configuring IPV4 andIPV6 |
| 32 | CablesandConnectors  Types of Cables(Coaxial, Twisted Pair), Shielded and Unshielded Pair of Cables (Straight wire Cable, CrossOver Cables) with colourcoding. |
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| 9th | 33 | Types of Cables(Coaxial, Twisted Pair), Shielded and Unshielded Pair of Cables (Straight wire Cable, CrossOver Cables) with colourcoding. |
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| 34 | Types of Cables(Coaxial, Twisted Pair), Shielded and Unshielded Pair of Cables (Straight wire Cable, CrossOver Cables) with colourcoding. |
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| 35 | Types of Cables(Coaxial, Twisted Pair), Shielded and Unshielded Pair of Cables (Straight wire Cable, CrossOver Cables) with colourcoding. |
| 36 | Ethernet Specification andStandardization:  10 Mbps (Traditional Ethernet), 100 Mbps (Fast Ethernet) and 1000 Mbps (Gigabit Ethernet),Leased lines. |
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| 10th | 37 | Ethernet Specification andStandardization:  10 Mbps (Traditional Ethernet), 100 Mbps (Fast Ethernet) and 1000 Mbps (Gigabit Ethernet),Leased lines. |
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| 38 | Use of RJ45, RJ11,BNC,SCST. |
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| 39 | Use of RJ45, RJ11,BNC,SCST. |
| 40 | Use of RJ45, RJ11,BNC,SCST. |
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| 11th | 41 | Use of RJ45, RJ11,BNC,SCST. |
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| 42 | Revision |
| 43 | **Assignment-2** |
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| 44 | **Sessional Test-2** |
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| 12th | 45 | Network connectivityDevices |
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| 46 | NICs |
| 47 | Hubs |
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| 48 | Repeaters |
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| 13th | 49 | Switches |
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| 50 | Routers and RoutingProtocols. |
| 51 | Configuring ofRouters.  VOIP and Net-to-PhoneTelephony |
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| 52 | Network Administration / Security  Client/ServerTechnology |
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| 14th | 53 | Network Administration / Security  Client/ServerTechnology |
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| 54 | ServerManagement  RAID management andmirroring |
| 55 | Cryptography |
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| 56 | EthicalHacking |
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| 15th | 57 | Basics of Wireless: Wireless MAN, Networking, Wireless LAN, |
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| 58 | Wi-Fi, WiMax (Broad- band Wireless) and Li-Fi. |
| 59 | **Assignment- 3** |
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| 60 | **Sessional Test- 3** |
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