**UNIT II**

**SESSION I**

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| --- | --- |
| **Activity**  | **Board Activity** |
| **Topic**  | Recap: Link Level flow control  |
|  | Definition, concept |
| **Activity**  | Presentation |
| **Topic**  | Medium Access |
|  | Definition, addressing mechanism |
| **Weblink** | http://en.wikipedia.org/wiki/Media\_Access\_Control |
| **Activity**  | Questions and Answers |
| **Topic**  | Conclusion |
|  | 1. What is the primary function of medium access?
2. Define medium access control.
3. Define MAC address.
4. Define channel access.
5. Define multiple access.
6. Define Ethernet.
7. Functions performed in the MAC Sub layer.
8. Define address resolution protocol.
9. Define wireless interference.
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**SESSION II**

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| --- | --- |
| **Activity**  | Writing Board  |
| **Topic**  | Recap : Medium Access |
|  | Definition and concepts |
| **Activity**  | Writing Board  |
| **Topic**  | CSMA |
|  | Definition, CSMA with collision detection and avoidance |
| **WebLink**  |  http://en.wikipedia.org/wiki/Carrier\_sense\_multiple\_access |
| **Activity**  | Show and tell activity |
| **Topic**  | Conclusion |
|  | https://encrypted-tbn1.gstatic.com/images?q=tbn:ANd9GcSq6Zc8vLPILlQw7H1OkjBv5Ss2PoKuIDuwGFJbi6X4tV_btKvqCghttp://www.teco.edu/%7Ekrohn/csma.jpg  |

**SESSION III**

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| **Activity**  | Board activity  |
| **Topic**  | Recap: CSMA |
|  | Definition and concepts |
| **Activity**  | Board activity  |
| **Topic**  | **Ethernet** |
|  | Definition, Three generations of Ethernet. |
| **WebLink**  |  <http://compnetworking.about.com/cs/ethernet1/g/bldef_ethernet.htm>  |
| **Activity**  | Board activity  |
| **Topic**  | Physical properties |
|  | concepts |
| **WebLink** | [**https://facultystaff.richmond.edu/~dszajda/classes/cs150/Fall\_2009/**](https://facultystaff.richmond.edu/~dszajda/classes/cs150/Fall_2009/)**www/lectures/networking\_slides/EthernetSlides.pdf**  |
| **Activity**  | Word scramble |
| **Topic**  | Conclusion |
|  |

|  |  |
| --- | --- |
| atmrobcfee lret |  |
| olocnlisi |  |
| smca |  |
| srnehtte efat |  |
| aolah |  |

**Answer:**Robert MetcalfeCollisionCsmaFast Ethernetaloha |

**SESSION IV**

|  |  |
| --- | --- |
| **Activity**  | Writing Board |
| **Topic**  | Access Control Algorithm |
|  | MAC, concepts |
| **WebLink** | http://www.erg.abdn.ac.uk/~gorry/eg3561/lan-pages/mac.html |
| **Activity**  | Writing Board |
| **Topic**  | Frame format |
|  | Ethernet frame format |
| **WebLink**  | <http://compnetworking.about.com/cs/ethernet1/g/bldef_ethernet.htm> |
| **Activity**  | Quiz |
| **Topic**  | Conclusion |
|  | https://encrypted-tbn3.gstatic.com/images?q=tbn:ANd9GcTX2FQxHw0iiYOWpTUZHDSBxoMHjGiaUrKocEaPJHBvUmCkbVfCaQ1. Identify this above diagram.
2. Define Ethernet.
3. What is meant by fast Ethernet?
4. Define collision.
5. Define collision detection.
6. What is meant by 10Base2?
7. Define switched Ethernet.
8. State the different Data rate for Ethernet.
9. Define cabling.
10. Define the frame format for Ethernet.
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**SESSION V**

|  |  |
| --- | --- |
| **Activity**  | Board activity |
| **Topic**  | **Token Ring 802.5,** Physical properties |
|  | Definition, Conceptshttps://encrypted-tbn2.gstatic.com/images?q=tbn:ANd9GcRS2s9AlIPIlJA0kE_ggxeHHEqQFJ4Y8SzTrQlhrgSxLJsBWZly |
| **WebLink** | [**http://pluto.ksi.edu/~cyh/cis370/ebook/ch03e.htm**](http://pluto.ksi.edu/~cyh/cis370/ebook/ch03e.htm) |
| **Activity**  | Analogy  |
| **Topic**  | Token Ring Media Access Control |
|  | **Relay game** In relay we are using stick, in similar manner in Token ring uses token to send one particular packet. |
| **WebLink**  | <http://www.webopedia.com/TERM/T/token_ring_network.html>http://www.textfiles.com/bitsavers/pdf/apollo/010005-00\_ Apollo\_Token\_Ring\_Media\_Access\_Control\_Layer\_and\_Physical\_Layer\_Protocols\_Oct87.pdf |
| **Activity**  | Board activity |
| **Topic**  | Token ring maintenance, Frame Format |
|  | Concept, 802.5 token ring frame format |
| **WebLink** | <http://homepages.uel.ac.uk/u0306091/TOKEN_RING.htm>  |
| **Activity**  | Board activity |
| **Topic**  | **Ubiquitous Networking (content beyond the syllabus)** |
|  | http://en.wikipedia.org/wiki/Ubiquitous\_computing |
| **WebLink** |  |

http://www.textfiles.com/bitsavers/pdf/apollo/010005-00\_ Apollo\_Token\_Ring\_Media\_Access\_Control\_

Layer\_and\_Physical\_Layer\_Protocols\_Oct87.pdf

**SESSION VI**

|  |  |
| --- | --- |
| **Activity**  | Board activity |
| **Topic**  | Recap : Token Ring 802.5 |
|  | Frame format, concepts |
| **Activity**  | Board activity |
| **Topic**  | **FDDI** Physical properties |
|  | Dual fiber ring a) normal operation b) Failure of the primary ring. |
| **WebLink**  |  <http://en.wikipedia.org/wiki/Fiber_Distributed_Data_Interface> |
| **Activity**  | Board activity |
| **Topic**  | Timed Token Algorithm, Token Maintenance, Frame Format  |
|  | TRT- Token Rotation Time, TTRT- Target Token Rotation time, FDDI frame format |
| **WebLink**  | https://www.google.co.in/search?sclient=psy-ab&q=Wi-Fi&oq=Wi-Fi&gs\_l=hp.3...206370.206370.10.207249.1.1.0.0.0.0.0.0..0.0....0...1c.. 26.hp..58.5.24.wghNyrkVGJ0&bav=on.2,or.r\_qf.&bvm=bv.52164340,d.bmk&biw=1280&bih=696&dpr=1&emsg=NCSR&noj=1&ei=zng1UveqDYOMrQei14H4BA |

**SESSION VII**

|  |  |
| --- | --- |
| **Activity**  | Presentation, Board activity |
| **Topic**  | Wireless LAN |
|  | Wireless 802.11 physical properties, example wireless network |
| **WebLink** | <http://simple.wikipedia.org/wiki/Wireless_LAN> |
| **Activity**  | Analogy  |
| **Topic**  | Bluetooth Technologies |
|  | Data transfer using cell phones |
| **WebLink**  |  <http://www.cisco.com/web/IN/solutions/en/wireless_lan/index.html> |
| **Activity**  | Presentation, Board activity |
| **Topic**  | Wi-Fi |
|  | **http://en.wikipedia.org/wiki/Wi-Fi** |
| **Activity**  | Recall by keywords |
| **Topic**  | Conclusion |
|  | 1. Frequency hopping
2. Infrared signals
3. Wireless
4. Bluetooth
5. Wireless fidelity
6. Direct sequence
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**SESSION VIII**

|  |  |
| --- | --- |
| **Activity**  | Presentation |
| **Topic**  | **Bridges and Switches,** Learning Bridges, Spanning Tree Algorithm |
|  | Definition and concepts |
| **WebLink** | <http://jpkc.ncwu.edu.cn/jsjwl/net/kurose/ethernet/transparent_bridges.htm> |
| **Activity**  | Presentation |
| **Topic**  | Broadcast and MulticastLimitations of Bridges |
|  | Types of addressing schemes |
| **WebLink**  |  http://www.google.co.in/url?sa=t&rct=j&q=&esrc=s&source=web&cd=5&cad= rja&ved=0CEcQFjAE&url=http%3A%2F%2Fwww.comptechdoc.org%2 Findependent%2Fnetworking%2Fguide%2Fnetbroadcasting.html&ei= uXw1Up3lIMSGrgf8yoHwCQ&usg=AFQjCNGKsUz0F8IIaCuWjuDiuU1G8fiexg&bvm=bv.52164340,d.bmk |
| **Activity**  | Show and tell |
| **Topic**  | Conclusion |
|  |   |

**SESSION IX**

|  |  |
| --- | --- |
| **Activity**  | Presentation |
| **Topic**  | Recap: Bridges and Switches |
|  | concepts |
| **Activity**  | Presentation |
| **Topic**  | Cell Switching (ATM) |
|  | Cells, cell format, segmentation and reassembly |
| **WebLink**  |  http://en.wikipedia.org/wiki/Asynchronous\_Transfer\_Mode |
| **Activity**  | Word scramble |
| **Topic**  | Conclusion |
|  | nnasooucrhsy rsftrane omed igdrbeLAeNdd txnee**Answer Key:**nnasooucrhsy asynchronous rsftrane transfer omed mode igdrbe bridge LAeNdd txnee extended LAN |