

Aryan College

Computer Network and Mobile Computing

Unit I: **OSI model, Type of CN and Topology**

1. Discuss about various data transmission modes. (2017)
2. Why switching is needed in networking? Explain various types of switching used in network. (2017)
3. What is OSI model? Explain the significance of layer model. (2016)
4. What is framing architecture ? Explain. (2016)
5. What is topology ? Explain different type of topology in detail. (2016)
6. What is guided media ? Explain in detail. (2016)
7. Explain the type of computer network in detail. (2016)
8. Explain in detail what is switching in Networks. (2016)
9. Explain in detail the functionality of :
 - a. Data link layer
 - b. Network layer
10. Explain the functioning of 7 layers of OSI model. What is the necessity of using 7 layer concept in OSI model. (2015)
11. Differentiate between Guided and Unguided transmission media. Give one example of each. Also describe any one guided transmission media in detail. (2015)
12. Explain network topology with diagram. (2015)
13. What is protocol ? Explain OSI model in detail. (2014)
14. Write short notes on
 - a. Network topology (2014)
 - b. Types of network (2014)
 - c. Data transmission technique (2014)
15. Explain function of each Layer of OSI model. (2013)
16. Discuss various types of network topologies. (2013)

Unit II: **Multiplexing and Telecommunication**

1. What do you mean by multiplexing? Explain any two type of multiplexing. (2017)
2. Discuss various types of cables used for network connections. (2017)
3. What is TCP/IP model in computer network ? Describe in detail. (2016)
4. What is cordless telephony system ? Explain digital enhanced cordless telecommunication. (2016)
5. Write short notes on
 - a. Ethernet (2017)
 - b. Cordless telephony (2014), (2015)
 - c. FDMA (2015)
 - d. CDMA (2015)
 - e. Switch and Hub (2015)
 - f. Private and Public Network. (2015)
 - g. Bridges (2016), (2013)
 - h. Routers (2016), (2013)
6. Explain working of DMA (2015)
7. Differentiate between TDMA and FDMA. (2015)
8. Discuss various types of network components. (2014)
9. Explain CSMA/CD protocol for MAC, with the help of flow chart. (2013), (2014)
10. Explain digital Enhanced Cordless telecommunication. (2013)
11. Explain CDMA technique in detail. (2013)

Unit III: **Wireless Technology**

1. What do you understand by hand off? How does it work? (2017)
2. Write short notes on
 - a. Satellite Communication. (2017)
 - b. Microwave transmission (2016)

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- c. Radio transmission (2016)
3. Explain cellular telephony and capacity improvement techniques in cellular system. (2017)
4. Explain WLAN network in detail. (2017)
5. Describe in detail about Personal Communication System Architecture. (2015)
6. What is the difference between Synchronous communication and Asynchronous communication? Also state the difference between serial and parallel data transmission. (2015)
7. What is land mobile and satellite communication? Give difference between land mobile and inbuilding communication. (2014)
8. Explain cellular architecture of mobile communication. (2014)
9. Define and compare land mobile and satellite communication. (2013)

Unit IV:

Mobile Computing

1. Explain wireless architecture for mobile computing. (2015), (2017)
2. Explain the difference between unicast, broadcast and multicast. (2017)
3. Explain architecture of IEEE 802.11 based multi-channel wireless mesh network. (2016)
4. Write short notes on
 - a. Mobile IP (2013), (2014), (2015), (2017)
 - b. Scatter net (2017)
 - c. End user devices. (2015)
 - d. Unicast and multicast communication. (2016), (2015)
 - e. Wireless TCP (2016), (2013), (2014)
 - f. Hand of adhoc network (2016), (2013)
 - g. Bluetooth (2016), (2013)
5. Explain the protocol architecture IEEE 802.11 standards. (2014), (2015)
6. Explain Bluetooth technology. (2015)
7. Explain in detail about Ad hoc Network and also describe MAC Protocol. (2015)
8. What are the routing metrics in wireless adhoc network ? Explain MAC layer Bluetooth system (2014)
9. Discuss with the help of suitable diagram the wireless architecture of mobile computing. (2013)