University of Sargodha

BSIT Term System 3rd Term Exam 2014

Subject: I.T **Paper: Computer Communication and Networks (CMP-2540)**

Time Allowed: 2:30 Hours **Maximum Marks: 80**

Objective Part (Compulsory)

Q.No.1: Attempt all parts and each require answer 2 – 3 lines (16*2=32)

i. List primary responsibilities of session layer.
ii. Differentiate between error detection and error correction.
iii. What is meant by high SNR?
iv. Differentiate between TCP and UDP.
v. What function does a modem perform?
vi. What is a parity bit?
vii. What is encryption? Which layer of OSI model is responsible to do this?
viii. What is attenuation?
ix. Differentiate between 3G and 4G GSM networks.
x. Why it is helpful to have periodic signal.
xi. What is meant by line of sight communication?
xii. What is responsibility of HDLC?
xiii. What is meant by softswitch?
xiv. What is DSL?
xv. Which layer is responsible for ARP and RARP?
xvi. What is meant by modulation?

Subjective Part

Note: Attempt four out of six questions. **(4*12=48)**

Q.2. Differentiate between synchronous and asynchronous transmission with suitable example..
Q.3. Write a descriptive note on unguided media.
Q.4. What is multiplexing? Explain different types of multiplexing with suitable examples.
Q.5. Discuss OSI model in detail. Briefly explain each layer.
Q.6. Explain wireless LAN IEEE 802.11 technology along with architecture and services of wireless LAN
Q.7. Discuss LAN topology in detail and also provide suitable example from real world, where it can be deployed.

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University of Sargodha

BS 4th Term Examination 2014.

Subject: I. T Paper: Computer Communication & Network (CMP-330)

Time Allowed: 2:30 Hours **Session: 2012-16** **Maximum Marks: 80**

Note: **Objective part is compulsory. Attempt any four questions from subjective part.**

Objective Part

Q.1. Write short answers of the following questions in 2-3 lines only (2*16)

i. Explain SNR with example.
ii. What is MAC, write name of two protocols of MAC layer?
iii. What is the difference between ISO and OSI?
iv. Explain the difference between frequency domain and time domain with example.
v. Why two units for bandwidth are used i.e. bps or Hz?
vi. What is latency?
vii. Explain multiplexing with suitable example.
viii. Why attenuation is much higher in twisted pair cable with lesser number of twists?
ix. Is Circuit switched network is efficient than packet switched network? Justify your answer.
x. What is meant by flow control and which layer is responsible for this.
xi. Explain the difference between TCP and UDP.
xii. Explain scrambling with suitable example.
xiii. What is encryption? Which layer of OSI model is responsible to do this?
xiv. What is the difference between signal rate and data rate?
xv. Describe the drawbacks of Infra-red network.
xvi. What are the different types of optical fiber?

Subjective Part (4*12)

Q.2. Consider Telecommunication Company 'ZTEL' has thought to deploy infrastructure they have 5 main offices and in each main office they have 10 computers. One of the main office is handling security. Security office should not have any point of failure, Draw topological diagram for given situation. Clearly mention assumptions that you are using for above mentioned deployment scenario, along with the design and proper justification.

Q.3. Explain switching in detail along with circuit switching and packet switching.

Q.4. Discuss Network Security Issues in detail.

Q.5. Write a note on:

a. Virtual circuit network b. Delta modulation

Q.6. Discuss noise impairments in detail.

Q.7. Discuss network topologies with appropriate examples.