

## University of Sargodha

M. Sc. 2<sup>nd</sup> Term Exam 2016.

Subject: I. T    Paper: Computer Communication & Network (CMP: 2540)

Time Allowed: 2:30 Hour

Maximum Marks: 80

### **Objective Part Compulsory**

Q1. Write short answers of the following questions. (16\*2=32)

1. Why is trailer necessary to be attached at data link layer?
2. What is difference between attenuation and distortion?
3. Name the associated protocols at transport layer.
4. Name types of propagation modes used by fiber optics cable.
5. What is meant by peer to peer processing?
6. Give an example of circuit switching.
7. The loss in cable usually defined in decibels per kilometer, if the signal at the beginning of a cable with -0.4db/km has a power of 3mW. What is power of signal at 7km?
8. What is difference between hub and switch?
9. What is delay?
10. What is CSMA/CA?
11. What is difference between traditional Ethernet and high speed Ethernet?
12. Why do we experience delays in packet switching?
13. Why the MAC addresses of frame changes from one hop to another hop?
14. Name the antenna being used to transmit and receive the microwave signals?
15. What is FDM?
16. Why do we use logical addresses?

### **Subjective Part**

Attempt any four questions out of six questions: (4\*12=48)

- Q2. What are different types of unguided media? Give details.
- Q3. What are the various characteristics of sine waves? Explain all.
- Q4. Write notes on:
  1. TDM
  2. WDM
- Q5. What is difference between:
  1. Baseband and broadband transmission
  2. Star and Bus topology
- Q6. Consider the string 10101101 draw the signaling diagram using unipolar, polar, Bipolar, Manchester and Differential Manchester.
- Q7. Given the dataword 1010011110 and the divisor 10111
  1. Show the generation of the codeword at the sender site (using binary division).
  2. Show the checking of the codeword at the receiver site (assume no error).