SATHYABAMA UNIVERSITY
(Established under section 3 of UGC Act,1956)

Course & Branch: B. E/B.Tech - CSE/IT
Title of the paper: Data Communication & Computer Networks
Semester: V   Max. Marks: 80
Sub.Code: 11504/12502 (2002/2003/2004)   Time: 3 Hours
Date: 29-11-2006   Session: FN

PART – A   (10 x 2 = 20)
Answer ALL the Questions

1.   What are the characteristics of LAN?
2.   Which topology requires a multipoint connection? Why?
3.   What is the spectrum of a signal?
4.   What is the major disadvantage of using NRZ encoding?
5.   What is data transparency in BSC?
6.   List out the advantages of FDDI over a basic token ring.
7.   Why is the R interface standard not defined by ISDN?
8.   Why is multiplexing more efficient if all the data units are the same size?
9.   How is a repeater different from an amplifier?
10. Why is the domain name reversed when searching for the IP address?

PART – B   (5 x 12 = 60)
Answer ALL the Questions

11. (a) Discuss the five basic components of a data communication system.

     (b) Compare and contrast the delivery of data units in the data link layer, the network layer and the transport layer.

                              (or)

12. (a) Explain the functions of OSI layers in a computer network.(8)

(b) Differentiate the computer networks internet and internet. (4)

13. (a) Explain the principles of digital to analog encoding techniques.

(b) Discuss the error correction mechanisms used for data communication.

(or)

14. (a) Describe the specifications of any two interface standards.

(b) Discuss the principles and construction of Guided Media.

15. (a) What is flow control? Discuss the mechanisms used to control the flow of data across communication links.

(b) Write note on SMDS.

(or)

16. (a) What is multiplexing? Explain the types of multiplexing and its applications. (8)

(b) Explain on connectionless services. (4)

17. (a) Discuss the channels defined in ISDN.

(b) Draw a diagram and explain the design of ATM protocol architecture.

(or)

18. (a) Explain the principle and architecture of ISDN.

(b) Give an example for packet layer protocol and explain.

19. Describe the role and configurations of Internetworking devices.

(or)

20. (a) Explain the duties of transport layer. (7)

(b) Discuss any one routing algorithm. (8)