SATHYABAMA UNIVERSITY

(Established under section 3 of UGC Act, 1956)

Course & Branch: B.Tech - IT
Title of the paper: Telecommunication Systems
Semester: V Max. Marks: 80
Sub.Code: 12505 (2002/2004/2005) Time: 3 Hours
Date: 28-04-2008 Session: AN

PART – A (10 x 2 = 20)

Answer All the Questions

1. List the different types of antennas?

2. Define bandwidth.

3. How does attenuation arise in optic fiber?

4. Why is laser diode preferred over LED for communication application?

5. What are the factors which alter the altitude of a satellite?

6. Sketch the structure of TDMA frame.

7. What is meant by guarding?

8. What is the function of the lowest most layer of ISDN protocol?

9. What is meant by IMTS?

10. What are the basic services provided by ISDN?

PART – B (5 x 12 = 60)

Answer All the Questions

11. (a) Write short notes on mobile environment. (5)
    (b) Briefly explain about RADAR. (7)

(or)

12. Explain in detail about different types of antennas and their characteristics.

13. Discuss in detail how the fiber dispersion is measured?

(or)

14. (a) Draw the block diagram of optical fiber communication system and explain the function of each block. (7)
    (b) Discuss the merits of fiber optic communication system. (5)

15. (a) Write short notes on SS – TDMA.
    (b) Explain the frame and burst formats of preassigned TDMA system.

(or)

16. (a) Explain the FDMA in multibeam environment. (7)
    (b) Write short notes on ALOHA. (5)

17. Explain the objectives, user interface and architecture of ISDN.

(or)

18. (a) Write short notes on paging system.
    (b) Briefly explain about Facsimile.

19. Describe the operation of cellular telephone and give some specifications.

(or)

20. (a) Write short notes on AMPS control system.
    (b) Write short notes on Digital cellular systems.