Register Number | | | | | | | |

SATHYABAMA UNIVERSITY

(Established under section 3 of UGC Act, 1956)

Course & Branch: B.Tech-IT
Title of the Paper: Telecommunication Systems Max. Marks: 80
Sub. Code: 412505-512505-612503 Time: 3 Hours
Date: 15/11/2010 Session: FN

PART - A (10 X 2 = 20)

Answer ALL the Questions

1. Define Antenna Bandwidth.

2. What do you mean by free space path loss?

3. List the advantage of optical fibers.

4. Write the formula for attenuation.

5. Define the terms apogee and perigee?

6. What do you mean by multiple accesses?

7. Define paging system?

8. Why is the cellular system used in hexagonal shapes?

9. Abbreviate the following term (a) MIN (b) ESN

10. Determine the transmitter and receiver carrier frequency for AMPs channel 3.

PART – B (5 x 12 = 60)

Answer All the Questions

11. (a) Explain in detail about Antenna arrays (8)
    (b) Define the following terms
        (i) Antenna Beamwidth (ii) Antenna input impedance. (4)

(or)

12. Explain in detail about space wave propagation.

13. Illustrate the basic optical fiber transmission.

(or)

14. Write short note on mode theory of optical fibers.

15. Discuss in detail about CDMA technology.

(or)

16. Explain in detail about satellite system.

17. Explain the working principle of cellular telephone system with suitable diagram.

(or)

18. Draw the architecture of ISDN and explain its working principle.

19. Describe the digital cellular system.

(or)

20. Write short notes on cordless telephone system.