

# 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(2002/2003/2004)

Time: 3 Hours

Date: 25-04-2007

Session: AN

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## PART – A

(10 x 2 = 20)

Answer ALL the Questions

1. Define Multipath Propagation.
2. List out the types of Handoff.
3. What you meant by Path loss?
4. Enumerate different types of Fiber.
5. What is Grated Index Fibre ?
6. Define PITCH, YAW & ROLL.
7. What you meant by STOP KEEPING?
8. What is Co-Channel Interference?
9. What is Trunking & GOS?
10. How Fading affect the signal Transmission?

## PART – B

(5 x 12 = 60)

Answer All the Questions

11. Derive the expression for free space propagation path loss with clear theoretical Explanation.  
(or)
12. (a) Discuss about the various types of Antennas and its Characteristics.  
(b) Discuss the features of attention and dispersion of Glass Fibres.

13. Draw the fiber optic communication system and explain its blocks.

(or)

14. Explain in detail the optical transmitters and Receivers used in Fiber optical communication.

15. Draw the block diagram of earth station and explain the functions of each block

(or)

16. Discuss about the various MAC methods used in Satellite communications systems

17. Explain briefly about the cellular communication system

(or)

18. Explain the structure and working principles of ISDN with neat sketch.

19. Write Short notes on

a. IMTS (5)

b. AMPS Control System and Security. (7)

(or)

20. Discuss about Fax and Data communication, cell cite Equipments in Cellular system.