

Application of Telecommunication: Assignment 1

Homework 1 due 13th Feb 2013 : Dead Line (14:00)

This assignment is 'individual work' only.

1. What is GPS. How many satellites are involved in GPS operation . Which country developed GPS system . What is Galileo System
2. Why Downlink frequency is always kept low as compared to uplink frequency
3. How can be FDM and TDM be represented graphically
4. Explain following terms
 1. Half Duplex , Simplex, MSC, Handoff, Roaming, Paging
5. What is guard band. How does the changing of size of guard band , effects the cost of equipment other resources in network
6. Give at least TWO examples of wireless networks using the following modulation schemes:
 - a. ASK – PSK – FSK – PCM – AM – FM – MSK – GMSK – OFDM – QPSK
7. If 0 dBm is equal to 1 mW over 50 ohms load, express 10W in units of dBm? (5 points)
8. Create a table that lists all 1G, 2G, 2.5G, 3G, 3.5G, 4G mobile telephone standards. Carefully research the latest sources to determine the following parameters: RF channel bandwidth, peak data rate, typical data rate, responsible standards body, maximum number of current users, modulation type.
9. What is AMPS. Provide a comparison table between AMPS and GSM

Book Problem

Problem 1.4, 1.6, 1.7, 1.8, 1.13