

1. QPSK. Explain how QPSK can transmit 2 bits at the same frequency?
2. Explain how time, frequency and code division methods control the simultaneous access to the medium by multiple source or channels of mobile terminals and base transceivers.
3. Show that any two of the three codes are mutually orthogonal. $-1, -1, 1, 1, -1, -1, 1, 1$;
 $-1, 1, 1, -1, -1, 1, 1, -1$; $-1, -1, -1, -1, 1, 1, 1, 1$
4. Describe the DSSS technique. Explain how it mitigate narrow band interference.
5. What are the functions of a rake receiver?
6. Explain the basic features of CDMA systems. Explain soft handover.
7. Explain the use of multiple carriers by orthogonal coding. How does an OFDMA system differ from a CDMA system?