Roll No...................................

EC-802

B.E. VIII Semester
Examination, June 2014

Advanced Communication System

Time : Three Hours

Maximum Marks : 70

Note : Attempt one question from each unit. All questions carry equal marks.

Unit-I

1. a) With the help of block diagram explain the working of frequency hopped spread spectrum technique.

   b) Discuss about the multiuser detection technique.

OR

2. a) With the help of block diagram explain the working of Direct sequence spread spectrum technique. Also explain processing gain.

   b) Discuss about the multiuser detection technique.

Unit-II

3. a) Discuss the working principle of OFDM.

   b) How is channel estimation done in OFDM? Determine the peak to average power ratio.

OR

4. a) Discuss the principle of multicarrier code division multiple access.

   b) What is inter carrier interference? How can it be reduced?

Unit-III

5. Explain in detail the principle working of smart antenna.

OR

6. Explain in detail the principle of multi input multi output system also explain multi user MIMO.

Unit-IV

7. a) Discuss the principle of inter weaving in cognitive radio.

   b) How is spectrum sharing done in cognitive radio.

OR

8. a) Explain about the cognitive transceiver architecture.

   b) What do you understand by overlay and underlay.

Unit-V

9. Write short notes of the following:

   a) Routing and resource allocation in multi hop networks.

   b) Network Coding.

OR

10. Write short notes of the following:

    a) Relaying with multiple parallel relays.

    b) Routing and resource allocation in collaborative networks.

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