

Roll No .....

**CS - 8303****B.E. VIII Semester**

Examination, June 2016

**Wireless Network**

(Elective-III)

Time : Three Hours

Maximum Marks : 70

- Note:* i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.  
 ii) All parts of each question are to be attempted at one place.  
 iii) All questions carry equal marks, out of which part A and B (Max. 50 words) carry 2 marks, part C (Max. 100 words) carry 3 marks, part D (Max. 400 words) carry 7 marks.  
 iv) Except numericals, Derivation, Design and Drawing etc.

1. a) Discuss the difference between wireless Network Vs conventional network.
- b) Explain difference generation of wireless networks.
- c) Describe Two-Ray model for mobile radio Environment in short.
- d) What are the effect of multipath and DOPPLER in cellular systems. How can you compensate it.

OR

What is the received power (in dBm) in the free space of a signal whose transmit power is 1w and carrier frequency is 2.4 GHz 1 if the receiver at a distance of 1 mile (1.6km) from the transmitter. Assume that the transmitter and receiver antenna gains are 1.

2. a) What do you mean by Hand off?
- b) Why is hexagonal cell shape preferred over square or triangular cell shapes to represent the cellular architecture?
- c) Compare peer to peer and multihop Ad-hoc topologies.
- d) What are the issues in CDMA network planning.

OR

Why power control mechanism is important in wireless networks?

3. a) What are incentives for power control in a TDMA network.
- b) What are the new elements added to the GSM infrastructure to support GPRS?
- c) What is short messaging service in GPRS.
- d) Discuss protocol layers in CDPD.

OR

Is it possible to jam CDMA, Explain clearly also explain concept of FSK and QPSK.

4. a) Enlist the advantages and disadvantages of wireless LANs.
- b) What do you mean by wireless ATM.
- c) Explain the specifics challenges for the design of HAN.
- d) What are the difference between IEEE 802.11 and HIPERLAN standards?

OR

Explain the layered protocol architecture of 802.11 standards.

5. a) What is AD-hoc network?
- b) Write short note on Home RF.
- c) What do you mean by 2.5 G and 3G
- d) Explain the protocol Architecture of Bluetooth.

OR

Elaborate the main aim of 802.15 WPAN group?

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