

Roll No

CS - 8303

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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.

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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?
