

(Lib)

B.E. (EXTC) Sem VIII (CR)

29-5-09

Wireless Network

11 a.m to 2 p.m.

Con. 3016-09.

(REVISED COURSE)

VR-4282

(3 Hours)

[Total Marks : 100]

N.B. : (1) Question No. 1 is **compulsory**.(2) Attempt any **four** questions from remaining Q. Nos. 2 to 7.

(3) Draw neat sketches wherever required.

(4) Assume suitable data if **required**.

1. (a) Explain RAKE receiver in CDMA. 20
 (b) Explain various states in Bluetooth system.
 (c) List the major technical differences between cdma-2000 and W-CDMA.
 (d) Explain authentication procedures used in IS-95.
2. (a) What are hand off messages in IS-95 ? Explain them with threshold. 10
 (b) Describe the three search windows used by the mobile to track the received pilot signals in CDMA system. 10
3. (a) Draw and explain architecture of WAP. 10
 (b) Draw the architecture of airloop WLL system. Explain each block in detail. 10
4. (a) Explain various functionalities of LAC sublayers on common and dedicated channels. 10
 (b) Explain in detail Bluetooth security features and security levels with proper diagrams. 10
5. Explain in detail with their flow diagrams, various call processing states in CDMA. 20
6. (a) "CDMA is an interference limited system". Give proper justification to support this statement. Also explain in short methods used for power control in CDMA environment. 10
 (b) List forward link features for CDMA-2000. Explain each in brief. 10
7. Write short notes on :— 20
 - (a) Cell loading
 - (b) Gold, Kasami and Walsh Sequences
 - (c) FHSS used in IEEE 802.11
 - (d) OFDM used in WLL.