(14)

QP Code : **2991**

(3 Hours)   [Total Marks : 100

N.B. :   (1)   Question No. **1** is **compulsory**
         (2)   Attempt **any four** out of remaining **q.no. 2 to 7**
         (3)   Draw neat Sketches wherever required.
         (4)   Assume suitable data if required.

1. (a) Why is power control is important in CDMA?   5
    (b) What is the difference between an ESS and a BSS in the IEEE 802.11?   5
    (c) Discuss two evolution paths for the GSM to offer 3G Services.   5
    (d) What is HSDPA?   5

2. (a) Differentiate between frequency hopping and direct-sequence spread spectrum.   10
    (b) What are various states in Bluetooth System? Explain difference between them. 10

3. (a) What is a WPAN? What is the difference between WPAN and WLAN? Name two   10
         example technologies for WPAN.
    (b) What is WAP? Discuss WAP architecture in brief.   10

4. (a) What is the UMTS? List important features of the UMTS air interface.   10
    (b) Discuss forward and reverse link channels in the cdma 2000   10

5. (a) Explain Bluetooth protocol stack   10
    (b) Explain sensor network protocol stack in detail.   10

6. (a) Explain link budget analysis and requirements of wireless networks.   10
    (b) Discuss WiMAX. What are the main differences between the IEEE 802.116 (Wi-Fi) 10
         and WiMAX?

7. Write short notes on
        (a)   IEEE Project 802   10
        (b)   RFID   10

QP-Con. 12121-15.