B.E. (Sem VII) (CBSGS) (Information Technology) 31st May 2016
Wireless Technology 11.00 am to 2.00 pm

Q.P. Code : 31422

(2½ Hours) **[Total Marks : 80**

N.B. : (1) All questions are compulsory.
(2) Solve any three questions out of the remaining five questions

1. A) Consider a cellular network with 64 cells. Each hexagonal cell has an appropriate area of 10 km^2. The total number of radio channels allotted for the network is 336. Find the total number of channels of the network, if **10**
   a) N = 4
   b) N = 7
   c) N = 12. Where N denotes cell reuse.

   B) Illustrate FHSS and DSSS with suitable examples. **10**

2. A) Explain in detail functional architecture of a GSM system. **10**
   B) Explain in detail MMDS and LMDS working in WLL based technology. **10**

3. A) Explain in detail IEEE 802.11 WLAN Architecture. **10**
   B) Explain in detail Hidden Terminal and Exposed terminal problem with respect to WLAN. **10**

4. A) Explain in wireless security offered by IEEE 802.11 in detail with neat diagram. **10**
   B) Explain in detail Bluetooth Protocol architecture with neat diagram. **10**

5. A) Explain Bluetooth security aspect. **10**
   B) Explain WEP protocol in detail. **10**

6. Write short note : **20**
   a. OFDM
   b. WLL Architecture
   c. Satellite Systems
   d. MACA