

sem - VII (CBSGS) / IT- / Wireless Technology
31/5/16

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
 - a) $N = 4$
 - b) $N = 7$
 - c) $N = 12$. Where N denotes cell reuse.
- B) Illustrate FHSS and DSSS with suitable examples.
- A) Explain in detail functional architecture of a GSM system.
- B) Explain in detail MMDS and LMDS working in WLL based technology.
- A) Explain in detail IEEE 802.11 WLAN Architecture.
- B) Explain in detail Hidden Terminal and Exposed terminal problem with respect to WLAN.
4. A) Explain in wireless security offered by IEEE 802.11 in detail with neat diagram.
- B) Explain in detail Bluetooth Protocol architecture with neat diagram.
- A) Explain Bluetooth security aspect.
- B) Explain WEP protocol in detail.
5. Write short note :
 - a. OFDM
 - b. WLL Architecture
 - c. Satellite Systems
 - d. MACA

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