

16194(D) - 0 DEC 2016

B. Tech 7th Semester Examination

Wireless and Mobile Communication (NS)

EC-414

Time : 3 Hours

Max. Marks : 100

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Attempt any one question each from section A, B, C and D. All parts of section E are compulsory.

SECTION - A

1. Explain different wireless media and frequency spectrum of wireless communication systems. (20)
2. Describe WPAN, its architecture and protocols. (20)

SECTION - B

3. Explain design requirements of WLAN and its applications. (20)
4. Explain wireless sensor networks and their applications. (20)

SECTION - C

5. (a) Explain the evolution of wireless communication systems.
(b) Describe architecture of a basic cellular system. (2×10=20)
6. How can we improve the coverage and capacity of cellular systems? (20)

SECTION - D

7. Compare frequency hopped spread spectrum and time hopped spread spectrum. (20)
8. Explain IS 95 system and how call processing is done in CDMA IS 95 systems. (20)

SECTION - E

9. Explain following terms:
 - (a) Cell splitting.
 - (b) Trunking and Grade of service.
 - (c) Types of handoff.
 - (d) Wireless Mesh networks.
 - (e) Frequency re-use.
 - (f) GSM.
 - (g) Mobile ad hoc networks.
 - (h) CDMA.
 - (i) Vehicular ad-hoc networks.
 - (j) Call blocking. (2×10=20)