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16190(D) 0 DEC 2016

B. Tech 7th Semester Examination

Wireless Communication & Mobile Computing (NS)

CS-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 : Candidates are required to attempt five questions in all selecting one questions from each sections A, B, C & D of the question paper and all the sub-parts of the questions in Section E.

SECTION - A

1. (a) Differentiate between guided and unguided transmission. Discuss the frequencies and properties of wireless transmission in VHF and UHF ranges. (10)
- (b) Draw a neat sketch and explain mobile computing architecture for a mobile device. (10)
2. (a) Explain the interfacing between different subsystems in GSM architecture. (10)
- (b) Describe four kinds of control data bursts. (10)

SECTION - B

3. How is a packet delivered to a computer on LAN after reaching a destination router on a subnet? Explain subnet mask, ARP and RARP. (20)
4. (a) Discuss the problems associated with wireless communication. (10)
- (b) Briefly explain network protocols. (10)

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SECTION - C

5. (a) List and explain the components of network architectures. (10)
- (b) What are WLAN standards? Explore. (10)
6. Discuss the network architecture of Wireless Metropolitan Area Networks. Also explore potential applications of WMAN. (20)

SECTION - D

7. (a) What do you mean by routing in Ad Hoc networks? Discuss. (10)
- (b) Discuss Wireless Mesh Networks. (10)
8. Differentiate between WLAN and WMAN. Discuss the internetworking of WLAN and WMAN. Explain the application environments of WMAN. (20)

SECTION - E

9. (a) Write a note on super and hyper frame.
- (b) What do you mean by modulation? Briefly explain different type of modulation.
- (c) What is IPsec suite of protocol?
- (d) What is frequency reuse?
- (e) Briefly explain extended service set.
- (f) What is 802.11p?
- (g) What do you understand by cellular networks?
- (h) Briefly discuss Vehicular AdHoc Networks.
- (i) What is 3G and 4G?
- (j) Explain packet delivery. (10×2=20)