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B. Tech. EXAMINATION, 2018

Semester VII (CBS)

WIRELESS AND MOBILE COMPUTING

CS-702

Time : 3 Hours *Maximum Marks : 60*

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 *Five* questions in all, selecting *one* question from each Section A, B, C and D. Section E is compulsory.

Section A

1. Define Mobile Computing. What are the needs for Mobile Computing ? Explain in detail about Mobile and Wireless devices with simplified reference mobile.

2. (a) Discuss the localisation and handover features of GSM network system.

   (b) Explain he bearer service, teleservices and supplementary services of GSM networks.

Section B

3. Write notes on the following :

   (a) Wireless Network Standards

   (b) WBAN Technology.

4. Describe the mobile IP packet delivery strateiges, registration and tunnelling with neat diagram.

Section C

5. Explain the network components, interface and design requirements of WLAN with the help of diagrams.

6. Explain in detail about IEEE 802.11 protocol architecture, features and applications with diagrams.

Section D

7. Explain the following in detail :

   (a) Wireless Sensor Network

   (b) Wireless Mesh Networks.

8. Discuss, how mobile Ad-hoc-networks differs from a wires network in aspects of routing. Explain any *two* on demand routing protocols used for routing in this network. https://www.hptuonline.com

Section E

9. Explain the following :

   (a) Define the term Mobile Node.

   (b) Give the security offered by GSM.

   (c) What is meant by Tunnelling ?

   (d) Give the basic objective of WBAN technologies.

   (e) Under what situation can collision occurs in IEEE802.11 protocol ?

   (f) What are the different routing strategies in Mobile Ad-hoc-N/W ?

   (g) Mention the message needed for optimized mobile IP.

   (h) What are the two basic groups of logical channels in GSM ?

   (i) State the requirements of WLAN.

   (j) Why is the PHY layer in IEEE802.11 subdivided ?