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Total number of printed pages – 2

B. Tech
PEIT 5402

Eighth Semester Regular Examination – 2015

UBIQUITOUS COMPUTING

BRANCH : IT

QUESTION CODE : J 245

Full Marks – 70

Time : 3 Hours

*Answer Question No. 1 which is compulsory and any **five** from the rest.
The figures in the right-hand margin indicate marks.*



1. Answer the following questions :

2×10

- (a) List the limitation of GSM Network.
- (b) What is a Cell ? How do you define the size of a cell ?
- (c) Explain the mechanism of Packet delivery in Mobile IP.
- (d) What is the difference between soft handoff and hard handoff ?
- (e) What is the difference between Mobile IP and Cellular IP ?
- (f) What are the basic functions of WAP gateway ?
- (g) What do you mean by BSS in Wireless LAN ?
- (h) What are the advantages of WML Script over WML ?
- (i) What is VPN and why it required ?
- (j) Differentiate between Pico net and Scatter net.

2. (a) Give an account of the three tier mobile computing architecture. 5

(b) Differentiate between TCP and wireless TCP. 5

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3. (a) What is Tunneling ? What are the tunneling protocols that are used in a VPN network ? Discuss. 5
- (b) Describe the working of Mobile IP with respect to the foreign agent and home agent. 5
4. (a) Describe the WAP protocol stack. 5
- (b) Compare GEO, MEO and LEO. 5
5. (a) Explain the architecture of an infrastructure based IEEE802.11 wireless LAN with suitable example. 5
- (b) Explain the Bluetooth protocol stack, in detail, with suitable diagram. 5
6. (a) What are the different channel allocation strategies ? Explain them by justifying their suitability over variant user load distributions. 5
- (b) Illustrate the difference between frequency hopping spread spectrum and direct sequence spread spectrum. 5
7. Write the GPRS architecture reference model. Further explain the network signaling reference model for GPRS, in detail, with suitable diagram. 10
8. Write short notes on any **two** of the following : 5×2
- (a) PCS Architecture
- (b) Difference between Windows CE and Windows Mobile Operating System
- (c) Features of WCDMA.

