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*Total number of printed pages – 2*

**B. Tech**  
**PEIT 5402**

**Eighth Semester Back Examination – 2015**

**UBIQUITOUS COMPUTING**

**BRANCH : IT**

**QUESTION CODE : M 219**

**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 GPRS.
  - (b) What is meant by cell splitting ?
  - (c) What are the basic features of WML ?
  - (d) What is tunneling ?
  - (e) What is the difference between orbital and elevation angles of satellite ?
  - (f) What are the basic functions of WAP gateway ?
  - (g) What do you mean by Roaming ?
  - (h) What is the use of EIR in GSM network ?
  - (i) What is CSMA/CA and why is it used in WLAN instead of CSMA/CD ?
  - (j) Differentiate between Pico net and Scatter net.
2. (a) Describe the main steps of inter-BS and inter-MSC handoff procedures. 5
- (b) Differentiate between TCP and wireless TCP. 5

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3. (a) Define and differentiate between Remote Access VPN and Site-to-site VPN? 5
- (b) Describe the protocol stack of Bluetooth. 5
4. (a) Describe the highlights of Symbian OS. Explain Symbian OS architecture. 5
- (b) Describe the WLL architecture. 5
5. (a) Explain the various system access modes used in CDMA 2000. 5
- (b) Explain why cellular IP cannot be used in place of Mobile IP? 5
6. (a) Define Co-channel cell and Co-channel interference. How does co-channel interference become a serious concern in the design of a cellular mobile system? 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 : 5x2
- (a) Components of Cellular System
- (b) Satellite System Architecture
- (c) IMT-2000 Family.

