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**Question Paper Code: 41204**

M.E. DEGREE EXAMINATION, MAY 2014.

First Semester

Computer Science and Engineering

(Common to Computer Science and Engineering [with specialization in networks])

14PNE103 - MOBILE AND PERVASIVE COMPUTING

(Regulation 2014)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions.

PART A - (5 x 1 = 5 Marks)

- Which one does not come under the role taken by software agents?
  - Service requester
  - Service provider
  - Discovery agency
  - Network resilience
- Principal areas of application of RFID
  - Security
  - Stock market
  - Traffic management
  - Library management
- WSN stands for
  - Wireless sensor networks
  - Wired sensor networks
  - Wireless source networks
  - Wireless sink networks
- Pervasive computing is also called as
  - Autonomic computing
  - Ubiquitous computing
  - Grid computing
  - Cloud computing
- The commonly used operating system in PDA
  - Palm
  - EPOC
  - Linux
  - Newton

PART - B (5 x 3 = 15 Marks)

6. Define middleware and gateway. Give examples.
7. Write short notes on third generation (3G) networks.
8. List out the applications of wireless sensor networks.
9. Write short note on ICNM. Elaborate on service plane and global function plane.
10. Discuss about speech applications and security.

PART - C (5 x 16 = 80 Marks)

11. (a) (i) Explain in detail about the mobile applications and services. (8)  
(ii) Discuss in detail about security implementation in mobile computing. (8)  
Or  
(b) Draw the architecture of the mobile computing and explain every component. (16)
12. (a) (i) Discuss on mobile computing through telephony. (8)  
(ii) Explain wireless broadband (Wimax) and RFID. (8)  
Or  
(b) (i) Write short notes on IPV6 and java card. (6)  
(ii) Draw the architecture of GSM and explain the functionalities of its components. (10)
13. (a) Explain Palm OS and Symbian OS in detail. (16)  
Or  
(b) Explain the formation and functional procedures of mobile adhoc networks. (16)
14. (a) (i) Write the key enablers for m-business applications. (4)  
(ii) Explain how operating system issues are handled in pervasive computing. (12)  
Or  
(b) (i) Explain the concept of biometrics and its utilization. (8)  
(ii) Differentiate WABA virtual machine platform with java development tools used for pervasive devices. (8)
15. (a) (i) With neat diagram explain WAP session security. (8)  
(ii) Discuss about WML. (8)

Or

- (b) (i) What is CC/PP configurations and explain its profile by using smart phone. (10)
- (ii) Explain pervasive web application architecture with neat sketch. (6)
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