Reg. No. : | | | | | | | | | | |

Question Paper Code: 92041

M.E. DEGREE EXAMINATION, MAY 2014.

Elective

Computer Science and Engineering (with Specialization in Networks)

01PNE505 - MOBILE COMPUTING

(Regulation 2013)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions.

PART A - (10 x 2 = 20 Marks)

1. Mention the properties of Radio waves.
2. What factors determine antenna gain?
3. What does the SIM card contain?
4. How can the users of GPRS specify a QoS - Profile?
5. What features made Bluetooth a commercial success?
6. How power saving is achieved in WLAN?
7. Compare proactive and reactive routing protocols.
8. List the advantages of reverse tunneling.
9. Mention the features of WML.
10. List the merits and demerits of Indirect TCP.

PART - B (5 x 14 = 70 Marks)

11. (a) Explain the different types of multiple access mechanisms. (14)

Or

(b) (i) Write a note on Cellular Networks. (7)

(ii) Describe the different types of Spread spectrum techniques. (7)

12. (a) Explain in detail about the GSM system architecture. (14)

Or

(b) (i) How calls are routed among GSM mobile devices? (7)

(ii) Describe the security measures used in GSM. (7)

13. (a) Explain in detail about 802.11 protocol architecture. (14)

Or

(b) (i) List the challenges faced by an Ad-Hoc network. Also specify its applications. (7)

(ii) Write short notes on Bluetooth. (7)

14. (a) Explain the process of registration procedures and location management in handover. (14)

Or

(b) (i) With a neat diagram describe the operations of DHCP. (7)

(ii) Compare the working principle of DSR and AODV. (7)

15. (a) (i) Describe any two techniques of TCP enhancements for mobility. (9)

(ii) Write a note on the standard libraries for WML Script. (5)

Or

(b) Describe the layered architecture of WAP protocol suite. (14)

PART - C (1 x 10 = 10 Marks)

16. (a) Imagine an application that requires sending audio, video and text messages from one node to another. Which type of traffic is to be given higher priority? What actions can be taken to deliver the contents with good quality? (10)

Or

(b) Draw and explain the scenario of how the voice box message is sent to the mobile client. (10)