Question Paper Code : 91773

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2019

Sixth Semester

Information Technology

IT6601 – MOBILE COMPUTING

(Common to Computer Science and Engineering)

(Regulations 2013)

(Also Common to PTIT6601 – Mobile Computing for B.E. (Part-Time) – Fifth Semester – Computer Science and Engineering – Regulations – 2014)

Time : Three Hours   Maximum : 100 Marks

Answer ALL questions

PART – A   (10×2=20 Marks)

1. Define mobile computing.

2. What are the issues present in MAC ?

3. What is the need for Mobile IP ?

4. What is Route Optimization ?

5. Name the teleservices provided by GSM.

6. In which way GPRS is better than GSM ?

7. Why routing in a MANET a complex task ?

8. Distinguish VANET and MANET.

9. What are the special constraints and requirements of Mobile O/S ?

10. What is M-commerce ?

PART – B   (5×13=65 Marks)

11. a) i) Explain with a neat diagram the structure of Mobile Computing.   (8)

       ii) Distinguish between Mobile Computing and Wireless Networking.   (5)

(OR)

   b) List different fixed assignment scheme with a neat diagram.   (13)

12. a) What problems would occur if the traditional TCP is used in mobile wireless environments ? Discuss how TCP can be adapted to work efficiently in mobile network environment.   **(13)**

(OR)

b) What are the main functions of DHCP ? Why is DHCP needed ? Can it be used when nodes are mobile ? Explain your answer.   **(13)**

13. a) What is handoff ? Explain the GSM architecture in detail.   **(13)**

(OR)

b) Discuss briefly about GPRS.   **(13)**

14. a) Briefly explain why the traditional packet routing protocols for wired networks cannot be used straight way in a MANET. Discuss how the routing protocols for traditional wired networks have been extended to work in a MANET.   **(13)**

(OR)

b) Explain the factors that make mobile ad-hoc networks more vulnerable to security attacks compared to the traditional networks. Also explain the major types of security attacks that are possible in a mobile ad-hoc network. How can each of these types of attacks be overcome ?   **(13)**

15. a) Explain various operating systems for mobile computing.   **(13)**

(OR)

b) i) Write detailed notes on applications of mobile commerce.   **(8)**

   ii) Explain with neat diagram the structure of Mobile Commerce.   **(5)**

PART – C   **(1×15=15 Marks)**

16. a) Discuss briefly with an example about the process followed in Mobile Payment system with different payment schemes when a customer places an order to purchase an item from the trader.   **(15)**

(OR)

b) Discuss with neat diagram how a packet is delivered from a mobile node to another mobile node without losing its information during mobility of the nodes.   **(15)**