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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)