Question Paper Code : 41298

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2018
Sixth Semester
Information Technology
IT 6601 – MOBILE COMPUTING
(Common to Computer Science and Engineering)
(Regulations 2013)

Time : Three Hours   Maximum : 100 Marks

Answer ALL questions

PART – A   (10×2=20 Marks)

1. Distinguish between mobile computing and wireless networking.

2. List the issues of wireless MAC.

3. What is the purpose of DHCP ?

4. What is the purpose of agent solicitation message ?

5. What is frequency range of uplink and downlink in GSM network ?

6. What are the informations are stored in SIM ?

7. Compare VANET with MANET.

8. Differentiate cellular with adhoc networks.

9. What is M-Commerce ? List its disadvantages.

10. What are the constraints of mobile device OS ?
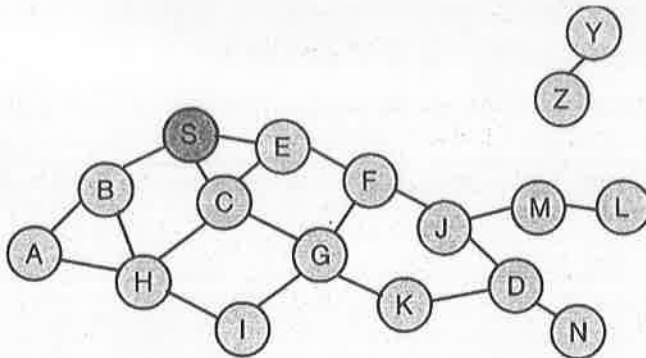
PART – B (5×13=65 Marks)

11. a) i) Discuss in detail the structure of a mobile computing application. (6)

   ii) Apply mobile computing to design Taxi dispatcher and monitoring service. Explain the components in detail. (7)

(OR)

b) i) List the characteristics of mobile systems. (6)

   ii) What is CSMA ? What are the categories of CSMA ? Explain their working with advantages and disadvantages. (7)

12. a) i) Explain Indirect TCP(I-TCP) with the help of a suitable schematic diagram. (8)

   ii) Explain the Agent Discovery Process in Mobile IP. (5)

(OR)

b) i) Describe how mobile TCP improves TCP efficiency for mobile networks ? How does mobile TCP maintain end to end semantics ? (8)

   ii) Briefly explain about the adaptation of TCP window. (5)

13. a) Write in detail about the various types of handover in GSM. Also discuss the timeline diagram of the Intra MSC handover. (13)

(OR)

b) Explain in detail network architecture of UMTS with a neat diagram. (13)

14. a) Describe the architecture of VANET with a neat diagram. (13)

(OR)

b) Explain the design issues in MANET and the applications of adhoc network. (13)

15. a) Explain in detail components of iPhone operating systems. List the special features of a mobile operating system. (13)

(OR)

b) Explain in detail mobile payment schemes and their security issues. (13)

<center>PART – C (1×15=15 Marks)</center>

16. a) Consider the network given below. Here 'S' is source node and 'D' is target node. Illustrate the process of route discovery, route reply, data delivery and route caching using DSR. Explain the approach.

<center>(OR)</center>

b) Enumerate the processes involved in data packet delivery using mobile IP in adhoc networks ?

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16. a) Consider the network given below. Here 'S' is source node and 'T' is target node. Enumerate the process of route discovery, route reply, data delivery and route caching using DSR. Explain the approach.

(OR)

b) Enumerate the processes involved in data packet delivery using module IP in adhoc networks?