

Reg. No. :

Question Paper Code : 53238

B.E./B.Tech. DEGREE EXAMINATIONS, APRIL/MAY 2019.

Sixth Semester

Information Technology

IT 6601 — MOBILE COMPUTING

(Common to Computer Science and Engineering)

(Regulation 2013)

(Also Common to PTIT 6601 — Mobile Computing for B.E. Part Time-Fifth Semester
– Computer Science and Engineering – Regulation 2014)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What do you mean by mobile computing?
2. Give some examples of reservation-based schemes in MAC protocols.
3. Identify the desirable features of Mobile IP.
4. Show the structure of a TCP segment.
5. Identify the services offered by GPRS.
6. List out the advantages of UMTS networks over 2G networks.
7. Why is routing in MANET so complex task?
8. Compare MANET versus VANET.
9. List some special constraints for mobile operating systems.
10. What are the desirable properties of a mobile payment system?

PART B — (5 × 13 = 65 marks)

11. (a) (i) Describe the characteristics of mobile computing. (5)
(ii) Explain the structure of mobile computing application with an illustrative example. (8)

Or

- (b) Summarize the functions of Fixed-assignment schemes in MAC protocols.

12. (a) With a neat diagram explain the packet delivery process between the correspondent node and the mobile node.

Or

- (b) Outline the popular TCP congestion control algorithms.

13. (a) (i) Outline the services offered by GSM. (7)
(ii) Analyze the important features associated with security in GSM. (6)

Or

- (b) Draw and explain the architecture of GPRS. List its advantages and limitations.

14. (a) Describe the characteristics and applications of Mobile Ad hoc networks.

Or

- (b) Summarize the two important classes of routing protocols for traditional networks.

15. (a) Outline the features of Windows mobile, Symbian and Android operating systems.

Or

- (b) (i) Explain the structure of Mobile commerce framework. (9)
(ii) State the pros and cons of Mobile Commerce. (4)

PART C — (1 × 15 = 15 marks)

16. (a) Organize the steps involved in operation of Destination-Sequenced Distance-Vector Routing protocol. Illustrate with an example.

Or

- (b) Discuss in detail about the mobile IP working principle with a neat diagram. Explain the tunneling operation with a encapsulated format message. (15)