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## Question Paper Code: 50767

## B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2017

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

 $(10\times2=20 \text{ Marks})$ 

- 1. List out the differences between Mobile Computing and Wireless Networking.
- 2. "MAC protocol designed for infrastructure based wireless network may not work satisfactory in infrastructure-less environment." Justify.
- 3. To which layer do each of the following protocols belong to? What is their functionality?
  - \* RARP
  - \* DNS.
- 4. Differentiate the functionalities of a foreign agent and home agent.
- 5. List the services of GPRS.
- 6. Define Handoff. What are its types?
- 7. Compare AODV and DSR protocols.
- 8. What are the contents of link state advertisement message?
- 9. What are the constraints in Mobile OS?
- 10. What are the advantages and disadvantages of BlackBerry OS?

## PART - B

 $(5\times16=80 \text{ Marks})$ 

- 11. a) i) Explain hidden and exposed terminal problem in infrastructure-less network. (8)
  - ii) Describe architecture of mobile computing.

(8)

(OR)

- b) What are the fixed assignment schemes of MAC protocol? Explain their mechanism in detail. Compare and contrast them.
- 12. a) Illustrate packet delivery mechanism in Mobile IP network with a neat diagram.

(OR)

- b) Discuss and compare the various mechanisms used to improve the TCP performance in mobile networks.
- 13. a) Explain GSM architecture and its services with neat diagram.

(OR)

- b) Explain in detail about UMTS architecture and its services.
- 14. a) Discuss route discovery and route maintenance mechanisms in DSR with illustrations. List its merits and demerits.

(OR)

- b) Describe the architecture of VANET with the functionality of the components. Compare VANET with MANET.
- 15. a) Illustrate the process of mobile payment. Compare and contrast mobile payment schemes.

(OR)

b) Explain android platform with its features, software stack and SDK.