Reg. No. : | | | | | | | | | | |

Question Paper Code: 46022

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2017

Sixth Semester

Computer Science and Engineering

14UCS602 - FUNDAMENTALS OF MOBILE COMPUTING

(Regulation 2014)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

1. A television broadcast is an example of _____ transmission.

   (a) simplex (b) half-duplex (c) full-duplex (d) automatic

2. The type of access used in GSM technology is

   (a) FDMA/TDMA (b) CDMA (c) OFDMA (d) SDMA

3. The _____ is used by email programs to retrieve emails from an email server.

   (a) HTTP (b) SNMP (c) ARP (d) POP

4. The process of channel coding, Encryption, Multiplexing and modulation for Trans direction and reverse for reception are to be carried out by

   (a) BTS (b) BSC (c) MSC (d) MS

5. Global Service for Mobile (GSM) uses two bands for duplex

   (a) Data (b) communications (c) Signals (d) Frames

6. The _____ provides packet mode transfer for applications that exhibit traffic patterns such as frequent transmission of small volumes

   (a) GSM (b) GPRS (c) UMTS (d) GGSN

7. Proactive is also called as _____ protocols.

(a) Table Driven (b) On demand routing (c) Vector routing (d) topology

8. Message is sent to all the nodes in the network by _____

(a) Unicasting (b) Multicasting (c) Broadcasting (d) demand routing

9. M- Commerce stands for _____.

(a) Multimode (b) Multi casting (c) Multi media (d) Mobile

10. _____ is a collection of telephony specific extensions for call and feature control mechanisms, merging data networks and voice networks..

(a) Wireless application protocol (b) File transfer protocol

(c) Wireless telephony application (d) Simple object access application

PART - B (5 x 2 = 10 Marks)

11. Define MAC Protocol..

12. What are the requirements of Mobile IP?.

13. Define Handoff. What are its types?

14. Mention the steps involved in routing process of MANET.

15. List the payment systems in M-Commerce.

PART - C (5 x 16 = 80 Marks)

16. (a) i) Explain in detail about Mobile Computing and Classify its various applications and limitations in the real world scenario. (10)

ii) Discuss about Reservation Based schemes. (6)

Or

(b) (i) Demonstrate the working of CSMA. (8)

(ii) Describe in detail about TDMA, FDMA, CDMA and tabulate the difference among them. (8)

17. (a) (i) Explain the sliding window protocol in TCP/IP. (8)

(ii) Examine the reason why congestion occurs in a network? Explain how does TCP detect and handle congestion. (8)

Or

(b) (i) Explain the process of route optimization in Mobile IP. (8)

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

18. (a) (i) Explain in detail about GSM architecture. (12)

(ii) Explain how does a call gets terminated in mobile phones. (4)

Or

(b) (i) Describe in detail about GPRS procedures in detail. (12)

(ii) Draw the architecture of UMTS. (4)

19. (a) (i) Discuss DSDV routing in detail with a neat diagram. (8)

(ii) Discuss the applications of MANET. (8)

Or

(b) (i) Demonstrate how multicast routing is carried out in ad-hoc networks. (8)

(ii) Explain any two terms and conclude how these two parameters impact the design of MANET. (8)

20. (a) (i) Explain Android platform with its features. (8)

(ii) Describe the mobile payment schemes and solutions. (8)

Or

(b) (i) Explain in detail iOS with SDK. (8)

(ii) Explain the advantages and disadvantages of M-commerce. (8)

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