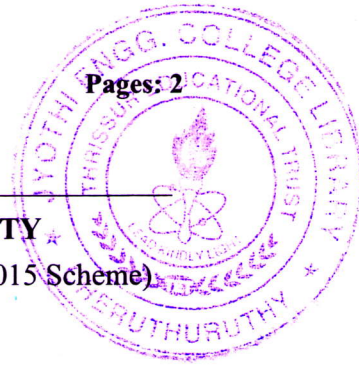Reg No.:_____   Name:_____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Sixth Semester B.Tech Degree (S, FE) Examination January 2024 (2015 Scheme)

Course Code: CS364

Course Name: MOBILE COMPUTING

Max. Marks: 100   Duration: 3 Hours

PART A
Answer all questions, each carries3 marks.

                                                     Marks

1   Define Mobile Computing in context of Pervasive Computing   (3)

2   Describe the significance of core, edge and access network.   (3)

3   Differentiate between LEO and MEO Satellites.   (3)

4   List and state the purpose of various databases used in GSM.   (3)

PART B
Answer any two full questions, each carries9 marks.

5   a)   List the characteristics of a mobile computing environment?   (3)

    b)   Explain the functions of different tiers in three-tier architecture?   (6)

6   Describe the GSM architecture with its constituent elements with the help of a neat diagram.   (9)

7   a)   How do spread spectrum techniques eliminate narrow band interference during signal transmission?   (3)

    b)   Describe what is multiple access. Why is multiple access important?   (3)

    c)   List the functions of a Transaction Processing Middleware.   (3)

PART C
Answer all questions, each carries3 marks.

8   What are the advantages and disadvantages of Wireless LAN?   (3)

9   Compare AODV and DSR protocols.   (3)

10   Discuss about Selective retransmission of TCP.   (3)

11   List the security features of WAP (Wireless Application Protocol).   (3)

PART D
Answer any two full questions, each carries9 marks.

12   Describe *Mobile TCP* and *Indirect TCP* with appropriate diagrams.   (9)

13   Describe the IEEE 802.11 MAC data frame format with relevant diagram.   (9)

14   a)   List the Agent advertisement procedure of Mobile IP.   (3)

b) Explain what is the need of DHCP protocol. In what way DHCP be used for mobility and support of mobile IP, with suitable example? (6)

PART E

Answer any four full questions, each carries 10 marks.

15 Explain the architecture of IEEE 802.15 Bluetooth networks, with suitable diagrams. (10)

16 Explain the following protocols and platforms for mobile computing: (10)
a) WAP b) J2ME c) PalmOS d) Android

17 Describe Indirect TCP. Explain the modifications of Indirect TCP as the selective repeat protocol and mobile-end transport protocol. (10)

18 a) Explain the LTE architecture and interface. (6)

b) List any four applications of Li-Fi. (4)

19 Explain in detail about the security issues in mobile computing with examples. (10)

20 Draw and explain the architecture of 5G network. (10)

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