LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.C.A. DEGREE EXAMINATION – COMPUTER APPLICATIONS

FOURTH SEMESTER – APRIL 2015

CA 4809 - MOBILE COMPUTING

Date : 20/04/2015
Time : 09:00-12:00

Dept. No.

Max. : 100 Marks

PART-A

Answer ALL the questions.   **10 x 2 =20**

1. How do you classify mobile applications based on lifestyle perspective?

2. Expand the acronyms ITU, LTE, TRAI AND 3GPP.

3. Name the addresses and identifiers of GSM.

4. Name the GPRS nodes with their expansion.

5. Write a note on NFC.

6. List the types of WLANs.

7. Name the two methods to discover a mobile agent in the context of mobile IP.

8. What is a home agent in MobileIP?

9. How to improve data availability to user queries using limited bandwidth?

10. What is location based services? Give examples.

PART-B

Answer ALL the questions.   **5 x 8=40**

11. a) Describe the architecture of mobile computing.

(or)

b) Explain the functionality of Adaptation and Security manager in designing a mobile computing environment

12. a) Explain GSM architecture with a diagram.

(or)

b) Compare the different access procedures.

13. a) Explain piconet and scatternet.

(or)

b) Explain ad-hoc and infrastructure mode.

14. a) Write a note on the entities of mobile IP and the terms associated with them.

(or)

b) Explain agent discovery and registration in mobileIP.

15. a) Give explanation on MANETs.

(or)

b) Describe data management and query processing in MDS.

PART-C

Answer any TWO questions.   **2 x 20 =40**

16. a) Elucidate logical division of mobile computing functions   **(10)**

    b) Describe authentication and security in GSM network.   **(10)**

17. a) Give an explanation on GPRS network operations.   **(10)**

    b) Explain WAP architecture.   **(10)**

18. a) Describe the basic architecture of Android OS with a neat diagram.   **(10)**

    b) Elucidate MDS transaction models.   **(10)**

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