

Reg. No. :

Question Paper Code : 10895

M.C.A. DEGREE EXAMINATIONS, APRIL/MAY 2019.

Fourth Semester

MC 5402 — MOBILE COMPUTING

(Regulation 2017)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. State any two important differences between GSM and CDMA.
2. Differentiate HLR and VLR.
3. Give the essential uses of piconet.
4. Mention few security related issues in bluetooth.
5. Define Tunneling.
6. What are the design goals of Mobile IP?
7. Name few libraries used in Android.
8. Give examples for intents and activities in android.
9. State the various adapter views in android.
10. Name the phases involved in service lifecycle.

PART B — (5 × 13 = 65 marks)

11. (a) (i) Compare the features of 2G, 3G and 4G networks. (6)
(ii) With a help of a neat diagram, explain the architecture of GSM. (7)
Or
(b) (i) Name the layers of GSM protocol architecture. Explain with diagram. (6)
(ii) Discuss about the components of GPRS architecture. (7)

12. (a) (i) Brief about the architecture of IEEE 802.11 with the help of the diagram. (6)
(ii) What are the threats for WLAN? Explain its security measures. (7)

Or

- (b) (i) Describe the functionalities of each layer involved in Bluetooth protocol. (6)
(ii) With the help of a neat diagram, explain the WAP architecture. (7)
13. (a) (i) Explain how packet delivery is handled in mobile IP. (6)
(ii) With a neat diagram explain the architecture of TCP/IP. (7)

Or

- (b) (i) Discuss about various encapsulation techniques in mobile IP. (6)
(ii) Explain snooping TCP. What are its advantages and disadvantages? (7)
14. (a) (i) Explain the various components of Android architecture framework with a neat diagram. (6)
(ii) How do you link activities with intent? Give example. (7)

Or

- (b) (i) What are the steps involved in creating Android Activity. Explain. (6)
(ii) Describe the phases involved in Android Application life cycle. (7)
15. (a) (i) Brief about various methods used in location based services. (6)
(ii) Explain in detail about Android Services. (7)

Or

- (b) (i) Explain how storing and retrieving of data is handled in Android. (6)
(ii) Develop a simple android application to perform arithmetic operations. (7)

PART C — (1 × 15 = 15 marks)

16. (a) Explain how tunneling works in general and especially for mobile IP using IPin-IP, minimal and generic routing encapsulation respectively. Discuss the advantages and disadvantages of these three methods. (15)

Or

- (b) With the help of a neat diagram discuss about the layers of conventional TCP/IP protocol and explain how it differs from mobile TCP. (15)