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**Roll No. ....**

**TCS-811**

**B. TECH. (CSE) (EIGHTH SEMESTER)  
END SEMESTER EXAMINATION, 2018**

**MOBILE COMPUTING**

**Time : Three Hours**

**Maximum Marks : 100**

**Note :** (i) This question paper contains five questions with alternative choice.

(ii) All questions are compulsory.

(iii) Instructions on how to attempt a question are mentioned against it.

(iv) Each part carries ten marks. Total marks assigned to each question are twenty.

1. Attempt any *two* questions of choice from (a), (b) and (c). (2×10=20 Marks)

(a) Give reasons for a handover in GSM and the problems associated with it. Discuss the typical steps for handover and what types of handover can occur.

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- (b) Discuss the logical channel used in GSM network in details. Also explain how Channel allocation can be done in GSM.
  - (c) With the help of diagram differentiate TDMA, FDMA and CDMA.
2. Attempt any *two* questions of choice from (a), (b) and (c). (2×10=20 Marks)
- (a) Differentiate between Links State and Distance Vector Protocol with example.
  - (b) Explain the working of AODV Protocol with example.
  - (c) How Route discovery can be done in GSR Protocol. Discuss with a scenario.
3. Attempt any *two* questions of choice from (a), (b) and (c). (2×10=20 Marks)
- (a) Explain the following with respect to Bluetooth :
    - (i) Services offered.
    - (ii) Bluetooth Packet Format
    - (iii) Security and Link Management
  - (b) Draw and define 802.11 protocol stack regarding the following points :
    - (i) Physical layer
    - (ii) Mac sublayer protocol
    - (iii) Frame structure.

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(3)

- (c) Describe in detail the WAP protocol architecture with neat diagram.
4. Attempt any *two* questions of choice from (a), (b) and (c). (2×10=20 Marks)
- (a) Explain the various issues in mobile data management.
  - (b) Explain how the following operations are handled in Coda file system :
    - (i) Inter process communication
    - (ii) Disconnected operation.
  - (c) How does mobility affect data replication when we consider replicating on mobile platform ?
5. Attempt any *two* questions of choice from (a), (b) and (c). (2×10=20 Marks)
- (a) Discuss in brief the fault tolerance system design strategies used in mobile computing.
  - (b) What are mobile agents ? Discuss their primary advantages over other approaches.
  - (c) What do you mean by online transaction processing ? Explain various mobile transaction models.

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