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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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