

CBCS SCHEME

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16/17MCA451

Fourth Semester MCA Degree Examination, June/July 2019 Wireless Communication and Mobile Technologies

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing one full question from each module.

Module-1

- 1 a. Explain the functionalities and features of a latest PalmOS device. (08 Marks)
b. List and explain the limitations of mobile devices. (08 Marks)
- 2 a. Explain the functionalities of a Smartcard. (08 Marks)
b. Explain the different types of handovers in GSM when a mobile station moves from one cell to another. (08 Marks)

Module-2

- 3 a. Explain the GSM services. (08 Marks)
b. Discuss the various types of calls and their respective procedures handled by a GSM network. (08 Marks)
- 4 a. Explain the different types of digital modulation techniques. (08 Marks)
b. Explain Medium Access Control for Exposed and Hidden Terminals. (08 Marks)

Module-3

- 5 a. Explain the working of mobile Ip. (08 Marks)
b. Explain the mechanism to deliver the Ip packets over Internet. (08 Marks)
- 6 a. What is encapsulation? Explain the encapsulation techniques with its frame formats. (08 Marks)
b. Explain the working principles of Indirect TCP. (08 Marks)

Module-4

- 7 a. With a neat diagram explain Four-Tier architecture. How do multimedia databases serve a mobile device in client-server architecture? (08 Marks)
b. Explain the query-processing architecture for processing a query using distributed databases. (08 Marks)
- 8 a. Explain pull-based data-delivery mechanism. (08 Marks)
b. Explain the types of Broadcast disk models. (08 Marks)

Module-5

- 9 a. List and explain the characteristics features of DAB system. (08 Marks)
b. What is data synchronization? Explain different types of synchronization. (08 Marks)
- 10 a. With a neat diagram, explain the BSS and IBSS service sets in WLAN architecture. (08 Marks)
b. Explain the basic features of Zig Bee. (08 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.