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## Fourth Semester MCA Degree Examination, June/July 2018 Mobile Computing and Wireless Communications

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions.

- a. What is mobile computing? Explain the Three-tire Architecture for mobile computing with neat diagram. (10 Marks)
  - b. What is Internet Content Adaptation Protocol (ICAP)? Explain typical Data Flow in ICAP Environments. (10 Marks)
- 2 a. Explain the GSM components and GSM Entities in mobile computing with appropriate examples. (10 Marks)
  - b. What are the strengths of Short Message Service (SMS). Explain the value Added services through SMS in detail. (10 Marks)
- 3 Explain the GPRS system Architecture with neat diagram.

(10 Marks)

b. What are the GPRS specific Applications? Explain in detail.

(10 Marks)

- a. What is spread spectrum Technology? Explain the different spreading techniques in details.

  (10 Marks)
  - b. Explain the major difference between GSM and IS 95.

(10 Marks)

- 5 a. What is mobile Handset overview? Explain Mobile phones and their features in details.
  - b. Explain the concepts of cellular IP, mobile IP with IPx 6.

(10 Marks) (10 Marks)

- 6 a. Explain the concepts of Data synchronization and Messaging for mobile computing environment. (10 Marks)
  - b. What is mobile operating system? Explain Implementation and testing phase of in mobile computing environment. (10 Marks)
- a. What is wireless Application protocol? Explain the components of WAP in detail. (10 Marks)
  - b. What are major difference between XHTML and voice XML? Explain with an examples.

(10 Marks)

- Write the short notes on following:
  - a. MIDP
  - b. CLDC
  - c. GUN in MIDP
  - d. Multimedia APIs.

(20 Marks)

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