



P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belgaum)

First Semester, M. Tech - Computer Engineering

Semester End Examination; Jan/Feb - 2016

Mobile Computing

Time: 3 hrs

Max. Marks: 100

Note: Answer FIVE full questions, selecting ONE full question from each unit.

UNIT - I

- 1 a. Explain the role of context manager in the mobile computing environment with example. 10
- b. Define Internet content adaptation protocol (ICAP). Mention the major components and describe the data flow in ICAP environment with a diagram. 10
- 2 a. Describe the steps that occur when IP data grams are exchanged over a TCP connection between mobile node and a host with a figure. 10
- b. Explain the different characteristics that define the computing environment as mobile. 10

UNIT - II

- 3 a. Where the permanent data of service profile is stored for the subscribers registered with a cellular network operator? Mention the information related to this permanent data. 10
- b. Define different technologies used between the human analog interface in mobile and digital network in GSM with the help of a diagram. 10
- 4 a. What are the unique characteristics of SMS that makes it an attractive bearer for mobile computing? Explain. 10
- b. Discuss how the attachment and detachment procedure is done in GPRS Network? 10

UNIT - III

- 5 a. Explain the different features of wireless markup languages. 10
- b. Mention and describe the main elements of IS-95 reference model. 10
- 6 a. What is digital rights management? Discuss the open mobile alliance (OMA) proposal on digital rights managements. 10
- b. List and explain the layers of CDMA protocol stack for data and facsimile. 10

UNIT – III

- 7 a. Describe the various advantages of wireless LAN. 10
- b. Explain the design constraints faced by application developers for the hand held devices. 10
- 8 a. Identify and describe the fields in Frequency Hopping Spread Spectrum (FHSS) and direct sequence spread spectrum (DSSS) of physical layer convergence procedure (PLCP). 10
- b. Discuss the issues that need to be addressed during the network design of wireless LAN. 10

UNIT - V

- 9 a. Identify and explain the kernel features and memory architecture of palm OS. 10
- b. Describe the different features offered by symbian 8.1. 10
- 10 a. Define connection manager. What are the different purposes the connection manager is used for in palm OS? Explain. 10
- b. Mention and explain the components needed for the applications of symbian O.S. 10

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