

Code No.: ETEC 407
Paper: Mobile Computing

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3 1 4

INSTRUCTIONS TO PAPER SETTERS:

MAXIMUM MARKS: 75

1. Question No. 1 should be compulsory and cover the entire syllabus. This question should have objective or short answer type questions. It should be of 25 marks.
2. Apart from question no. 1, rest of the paper shall consist of four units as per the syllabus. Every unit should have two questions. However, student may be asked to attempt only 1 question from each unit. Each question should be of 12.5 marks.

UNIT – I

Introduction to Personal Communications Services (PCS): PCS Architecture, Mobility management, Networks signalling.

Global System for Mobile Communication (GSM) system overview: GSM Architecture, Mobility management, Network signalling.

General Packet Radio Services (GPRS): GPRS Architecture, GPRS Network Nodes.

[No. of Hrs.: 11]

UNIT – II

Mobile Data Communication: WLANs (Wireless LANs) IEEE 802.11 standard, Mobile IP.

Wireless Application Protocol (WAP): The Mobile Internet standard, WAP Gateway and Protocols, wireless mark up Languages (WML).

[No. of Hrs.: 11]

UNIT – III

Third Generation (3G) Mobile Services: Introduction to International Mobile Telecommunications 2000 (IMT 2000) vision, Wideband Code Division Multiple Access (W-CDMA), and CDMA 2000, Quality of services in 3G.

Wireless Local Loop(WLL): Introduction to WLL Architecture, wireless Local Loop Technologies.

[No. of Hrs.: 11]

UNIT – IV

Global Mobile Satellite Systems; case studies of the IRIDIUM and GLOBALSTAR systems.

Wireless Enterprise Networks: Introduction to Virtual Networks, Blue tooth technology, Blue tooth Protocols.

[No. of Hrs.: 11]

TEXT BOOKS:

1. Yi-Bing Lin & Imrich Chlamtac, “Wireless and Mobile Networks Architectures”, John Wiley & Sons, 2001.
2. Raj Pandya, “Mobile and Personal Communication systems and services”, Prentice Hall of India, 2001.
3. Hansmann, “Principles of Mobile Computing”, Wiley Dreamtech, 2004.

REFERENCE BOOKS:

1. Mark Ciampa, “Guide to Designing and Implementing wireless LANs”, Thomson learning, Vikas Publishing House, 2001.
2. Ray Rischpater, “Wireless Web Development”, Springer Publishing, 2000.
3. Sandeep Singhal, “The Wireless Application Protocol”, Pearson Education Asia, 2000.
4. P.Stavronlakis, “Third Generation Mobile Telecommunication systems”, Springer Publishers, 2001.