

D 30942

(Pages : 2)



**SEVENTH SEMESTER B.TECH. (ENGINEERING) DEGREE
EXAMINATION, DECEMBER 2003**

Computer Science and Engineering

CS 2K 705C : MOBILE COMMUNICATION SYSTEMS

Time : Three Hours

Maximum : 100 Marks

Part A

Answer all questions.

- I. (a) What is meant by device and user mobility ?
(b) Mention the mobile and wireless devices available.
(c) Is a directional antenna useful for mobile phones ? How can the gain of an antenna be improved ?
(d) Considering duplex channels, what are alternatives for implementation in wireless networks ? What about typical wired networks ?
(e) Mention the uses of satellites.
(f) List the design goals that are taken into account for WLANs to ensure their commercial success.
(g) Give the reasons that led to the development of WATM.
(h) Mention the requirements that need to be satisfied in the development of mobile IP as a standard.

(8 × 5 = 40 marks)

Part B

Answer one full question from each unit.

UNIT 1

- II. (a) List some of the open research issues that need to be addressed in the context of wireless networks. (6 marks)
(b) Explain in detail the reference model used in mobile communication systems. (9 marks)

Or

- III. (a) Give a brief account of the frequency spectrum that can be used for data transmission. (6 marks)
(b) Explain in detail the concept of multiplexing. (9 marks)

UNIT 2

- IV. (a) Bring out the advantages of spread spectrum techniques. (3 marks)
(b) Explain in detail the following :—
(i) Direct sequence spread spectrum.
(ii) Frequency hopping spread spectrum.

(2 × 6 = 12 marks)

Or

Turn over