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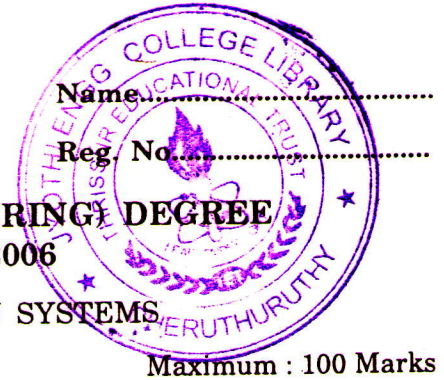## SEVENTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION, DECEMBER 2006

CS2K 705 C—MOBILE COMMUNICATION SYSTEMS

Time : Three Hours   Maximum : 100 Marks

Answer all questions.

1. (a) Explain the frequency reuse concept.

   (b) List the antennas used in wireless communication and draw their radiation patterns.

   (c) List the services of GSM.

   (d) Write the concept of digital audio broadcasting.

   (e) Compare Infrared and Radio transmission.

   (f) Give the format of an IEEE 802·11 PHY frame using DSSS.

   (g) Write the concept of IP encapsulation.

   (h) Why has a scripting language been added to WML ? How can this language help saving bandwidth and reducing delay ?

   (8 × 5 = 40 marks)

2. (a) Discuss the features of FDMA, TDMA and CDMA.   (15 marks)

   Or

   (b) (i) Give the reference model of a wireless transmission system and explain.   (8 marks)

   (ii) Discuss the concept of collision avoidance.   (7 marks)

3. (a) Draw the typical satellite system for global mobile telecommunication and explain.

   (15 marks)

   Or

   (b) Explain the digital video broadcasting scenario in detail.   (15 marks)

4. (a) Discuss the HIPERLAN protocols, services and data units.   (15 marks)

   Or

   (b) Discuss the WATM services and functions.   (15 marks)

5. (a) Give an example for least interference routing.   (15 marks)

   Or

   (b) Discuss the concepts of Indirect TCP, and Snooping TCP.   (15 marks)

   [4 × 15 = 60 marks]