

Q2 (a) Explain with neat figure a cellular system. Explain how a cellular telephone call is made.

Answer Page Number 18-20 of Text-Book

Q2 (b) compare Ad Hoc and Sensor Networks characteristics.

Answer Page Number 22-23 of Text-Book

Q3 (a) Derive an expression for path loss in dB for the space propagation in an ideal medium.

Answer Page Number 62 of Text-Book

Q3 (b) Discuss the effects of fast fading technique.

Answer Page Number 67-69 of Text-Book

Q4 (a) Derive the equation for co-channel interference ratio.

Answer Page Number 114-115 of Text-Book

Q4 (b) Under what condition cell splitting and cell sectoring is done.

Answer Page Number 116-117 of Text-Book

Q5 (a) compare TDMA, CDMA and FDMA

Answer Page Number 144-149 of Text-Book

Q5 (b) Write a note on channel allocation, hence bring out the difference between static allocation verses dynamic allocation.

Answer Page Number 170 of Text-Book

Q6 (a) Explain the advantages and limitation of GPS.

Answer Page Number 277 of Text-Book

Q6 (b) Explain the sequence of call setup from mobile station to base through satellites.

Answer Page Number 272-274 of Text-Book

Q6 (c) Explain hard and soft hand off and give its parameters for roaming.

Answer Page Number 273 of Text-Book

Q7 (a) Explain IEEE 802.15 standard for WPANS.

Answer Page Number 377 –387 of Text-Book

Q7 (b) List the different security threats to wireless networks.

Answer Page Number 440 of Text-Book

Q8 (a) With diagram explain the Frame Structure of GSM.

Answer Page Number 229 of Text-Book

Q8 (b) Explain 3G cellular systems and UMTS in IMT-2000.

Answer Page Number 249 of Text-Book

Q8 (c) compare PcS and IS-95 wireless systems.

Answer Page Number 241-243 of Text-Book

Q9 Explain the following with neat figures:

- (i) Need for MANET routing
- (ii) Routing classification in MANETS
- (iii) Routing in Sensor networks
- (iv) Wireless Sensor networks

Answer Page Number 308, 341, 334 of Text-Book

Text Books

Introduction to Wireless and Mobile Systems, Second Edition (2007), Dharma Prakash Agrawal and Qing-An Zeng, Thomson India Edition.