5E1356

B. Tech. V - Sem. (Main / Back) Exam., January - 2022
PCC / PEC Computer Science & Engineering
5CS5 – 11 Wireless Communication
CS, IT

Time: 2 Hours

Maximum Marks: 80
Min. Passing Marks: 28

Instructions to Candidates:

Attempt all five questions from Part A, four questions out of five questions from Part B and two questions out of three from Part C.

Schematic diagrams must be shown wherever necessary. Any data you feel missing may suitably be assumed and stated clearly. Units of quantities used /calculated must be stated clearly.

Use of following supporting material is permitted during examination. (Mentioned in form No. 205)

1. NIL
2. NIL

PART – A

(Answer should be given up to 25 words only)

[5×2=10]

All questions are compulsory

Q.1 What is slow fading?

Q.2 What is a cellular concept?

Q.3 Give OFDM principle.

Q.4 What is linear equalization?

Q.5 What is the need of MIMO system?

PART – B

Q.1 Write short note on 'PAPR'.

Q.2 What is soft hand off?

Q.3 Explain Doppler spread and coherence time.

Q.4 Short note on LMS algorithm.

Q.5 Explain the transmitter diversity.

PART – C

Q.1 Explain with suitable example FDMA, TDMA and CDMA.

Q.2 What are the different principles of offset-QPSK. Explain with a suitable diagram Gaussian Minimum Shift Keying. Also give the difference between P/4 OQPSK and MSK.

Q.3 Explain the importance of wireless system? With a suitable diagram explain the transmit beamforming, receiver beamforming and opportunistic beamforming.