

Total No. of Questions : 08

M.Tech. ECE (Wireless Communication) (2018 Batch) (Sem.-1)

WIRELESS COMMUNICATION

Subject Code : MTWC-101-18

Paper ID : [75797]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

- 1. Attempt any FIVE questions out of EIGHT questions.**
2. Each question carries TWELVE marks.

- Q1. Discuss in brief about the frequency selective fading channels for both time invariant and time variant channels.
- Q2. a) Explain Doppler spread and coherence time in detail.
b) Write a brief note on packing spheres for AWGN channel.
- Q3. a) State advantages and disadvantages of fixed antenna and moving antenna.
b) Discuss discrete-time baseband model of wireless channel in detail.
- Q4. Explain AWGN channel capacity in detail. Also discuss how bandwidth and SNR are related to the capacity of a channel.
- Q5. a) Explain the concept of bandwidth reuse in cellular systems.
b) Discuss the characteristics of slow fading and fast fading channels in detail.
- Q6. Describe the concept of multiuser diversity in multicell systems.
- Q7. a) Discuss the concept of power decay with distance and shadowing.
b) Explain in brief about the concept of transmitter diversity.
- Q8. a) Describe channel prediction and feedback in detail.
b) Discuss the significance of reflecting wall for wireless channels.