

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 121653

Roll No.

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**B.Tech.**

(SEM. VI) THEORY EXAMINATION 2013-14

**WIRELESS COMMUNICATION**

Time : 2 Hours

Total Marks : 50

Note :- Attempt all questions.

1. Attempt any two parts of the following : (7×2=14)

- (a) Explain practical link budget design using path loss model.
- (b) What is multi-path fading ? Comment on multi-path shape factor for fading wireless channels.
- (c) Explain these terms :
  - (i) Reflection
  - (ii) Diffraction
  - (iii) Scattering
  - (iv) Propagation models

Attempt any two parts of the following : (6×2=12)

- (a) What is the difference between DS-SS and FH-SS. What are the fundamentals of equalization ?
- (b) What is equalizer in communication receiver ? What are equalization techniques used in communication ?
- (c) Explain the performance of DS-SS in detail.

3. Attempt any **two** parts of the following : **(6×2=12)**
- (a) Explain frequency division multiplexing. What is FDMA ?
  - (b) Compare TDMA and SDMA according to various characteristics.
  - (c) Comment on characteristics of speech signal. What is quantisation ?
4. Attempt any **two** parts of the following : **(6×2=12)**
- (a) Explain hand off strategies.
  - (b) Comment on improving coverage.
  - (c) What is the capacity in cellular system ?