

IV / II ECE

R09

Code No: 09A80401

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year II Semester Examinations, July - 2014

CELLULAR AND MOBILE COMMUNICATIONS

(Electronics and Communication Engineering)

Time: 3 Hours

Max. Marks: 75

Answer any Five Questions  
All Questions Carry Equal Marks

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- 1.a) Discuss the uniqueness of Mobile radio environment.
- b) Write short notes on Doppler spread and coherent time.
  
- 2.a) Explain the concept of frequency reuse.
- b) What are the measures to be followed to improve coverage and capacity in cellular systems?
  
- 3.a) Discuss the significance of Antenna parameters and their effects on co channel interference.
- b) Discuss space and Polarization diversity.
  
- 4.a) What are the effects on coverage and interference by Power decrease?
- b) Explain the significance of adjacent channel interference.
  
- 5.a) What is the effect of Human made structures and natural structures in signal transmission?
- b) Obtain an expression for Path loss from a point to point prediction model in different conditions.
  
- 6.a) Why Omni directional antennas are preferred for signal coverage Give reasons?
- b) Write short notes on Umbrella pattern antennas and mobile antennas.
  
- 7.a) Explain Setup, access and Paging channels.
- b) Discuss the role of Channel sharing and Borrowing in cellular and mobile systems.
  
- 8.a) Explain the process of Forced handoff and list the advantages of Handoff.
- b) What do you mean by intersystem handoff explain.

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