

Total No. of Questions :8]

[Total No. of Printed Pages :2

Roll No.....

**EC - 7101**

**B.E. VII Semester**

Examination, December 2012

**Wireless Communications**

*Time : Three Hours*

*Maximum Marks : 100*

*Minimum Pass Marks :35*

*Note : Attempt any five questions. All questions carry equal marks.*

- 1) a) What are the requirements for developing a wireless mobile telephone system? (10)  
b) What are the technical challenges and the limitations of conventional mobile telephone systems? (10)
- 2) a) Discuss a Basic cellular system in brief. (10)  
b) What are the two basic types of communication channels? (10)
- 3) a) Describe Ground Reflection (Two-Ray) model for mobile radio wave propagation. (10)  
b) What are the characteristics of wideband and directional channel? (10)
- 4) a) Differentiate the Narrow band and wide band channel models. (10)

EC - 7101

PTO

[2]

- b) Give the brief introduction about the antennas for mobile stations. (10)
- 5) a) Write a note on antennas for the base stations. (10)  
b) Draw the structure of a wireless communication link and explain it. (10)
- 6) a) Explain the term frequency-dispersive fading channels. (10)  
b) What are the modulation formats for a wireless communication and explain any one of them in details. (10)
- 7) a) Give the brief introduction about microdiversity and macrodiversity. (10)  
b) What the classification of Equalizing techniques. (10)
- 8) Write a short note on any two of following: (20)
  - a) Error probability in fading channel with diversity reception.
  - b) Linear Equalizers
  - c) large scale fading
  - d) Multipath propagation

\*\*\*\*\*