

Roll No

EC-7011 (GS)**B.E. VII Semester**

Examination, December 2017

Grading System (GS)**Wireless Communication***Time : Three Hours**Maximum Marks : 70*

- Note:** i) Attempt any five questions.
ii) All questions carry equal marks.

1. a) Discuss about multipath propagation and spectrum limitation in wireless communication.
b) Discuss about the free space loss, diffraction and scattering by rough surfaces during propagation.
2. a) Discuss about time invariant and variant two path models.
b) Discuss about WSSUS model.
3. a) Explain small scale fading with and without a dominant component.
b) Explain Doppler spectra and temporal dependence of fading.
4. a) Explain the deterministic channel modeling methods.
b) Explain time domain measurements of channel sounding.

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5. a) Explain about Narrow band, Wide band and Directional channel models.
b) Explain briefly about antennas for base stations.
6. a) Discuss about error probability in AWGN channels.
b) Discuss about error probability in delay and frequency-dispersive fading channels.
7. a) Discuss about error probability in fading channels with diversity reception.
b) Explain the principle working of maximum likelihood sequence estimation (Viterbi detector).
8. Write short notes on any two of the following.
 - a) Ultra wide band channels
 - b) Decision feedback equalizer
 - c) Micro diversity, macro diversity and simulcast.

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