

Total No. of Questions : 8]

[Total No. of Printed Pages : 2

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## **EC-7005(2)-CBGS**

### **B.E. VII Semester**

Examination, December 2020

## **Choice Based Grading System (CBGS)**

### **Wireless Communication**

*Time : Three Hours*

*Maximum Marks : 70*

**Note:** i) Attempt any five questions.

ii) All questions carry equal marks.

1. a) Discuss the types of services, requirements, spectrum limitation and noise considerations of wireless communications.  
b) Write short note on “diffraction of signal”.
2. a) Explain the various parameters that characterize the effects of frequency and time dispersion.  
b) Describe WSSUS model.
3. a) Describe the tapped delay line models which can be used to represent WSSVS channel.  
b) Explain advantages and disadvantages of the 2-ray ground reflection model in the analysis of path loss.
4. a) Compare various modulation formats.  
b) Derive the error probability in AWGN channels.

EC-7005(2)-CBGS

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[2]

5. a) Discuss about wideband models.  
b) Explain the time domain measurement analysis.
6. a) Derive the expression for electric field and received power for a two ray model.  
b) Explain small scale fading and what are the factors affecting the small scale fading?
7. a) Explain about micro diversity, macro diversity and simulcast.  
b) Discuss the principle of viterbi detector.
8. a) Write down short notes on Linear equalizer.  
b) Discuss about antennas for Mobile stations and antennas for Base stations.

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