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**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR**

(AUTONOMOUS)

**B.Tech II Year I Semester Supplementary Examinations December-2021****INTRODUCTION TO COMMUNICATION SYSTEMS**

(Computer Science and Engineering)

Open Elective-I

Time: 3 hours

Max. Marks: 60

(Answer all Five Units 5 x 12 = 60 Marks)

**UNIT-I**

- 1 a Define wired & wireless communication. 6M  
 b Compare Analog & Digital Communication systems. 6M

**OR**

- 2 Write down about super heterodyne receiver (AM RECEIVER). 12M

**UNIT-II**

- 3 a What are different types of demodulation techniques? 4M  
 b What is frequency deviation? 4M  
 c How PM & FM related to each other? 4M

**OR**

- 4 Write down about Wideband FM. 12M

**UNIT-III**

- 5 Write down the short notes on: Shot noise, Noise figure, SNR, Thermal noise, White Noise. 12M

**OR**

- 6 a Define Pulse Time Modulation & classify it with proper diagram. 6M  
 b How one can generate a PWM wave? 6M

**UNIT-IV**

- 7 a How many sampling techniques are there? 6M  
 b What is Quantization & Quantization Noise? 6M

**OR**

- 8 a Compare PCM, DPCM & DM. 4M  
 b What is pass band transmission? 4M  
 c How many digital modulation techniques are there? Write down the names. 4M

**UNIT-V**

- 9 a What is 1G cellular system? 6M  
 b Write down about 2G & 2.5G cellular system. 6M

**OR**

- 10 a What is GSM? 3M  
 b What is Base station? 3M  
 c What is handover? 3M  
 d What is MSC? 3M

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