

Roll No.

3090

**B. Tech. 4th Semester (ECE)
Examination – July, 2021**

COMMUNICATION SYSTEM

Paper : PCC-ECE-202-G

Time : Three Hours] [Maximum Marks : 75

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt *five* questions in all, selecting *one* question from each Section. Question No. 1 is *compulsory*.

All questions carry equal marks.

1. Answer the following questions :
- | | | |
|-----|--|---|
| (a) | Discuss brief about classification of signals. | 4 |
| (b) | Compare FM with AM. | 3 |
| (c) | Discuss thermal noise and give thermal noise equation. | 4 |
| (d) | State PCM technique and its disadvantages. | 4 |

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SECTION - I

2. (a) What are limitations & advantages of communication system? 7
(b) Discuss radio frequency spectrum. 8
3. Write short notes on :
(i) Noise quieting effect 8
(ii) Sources of noise 7

SECTION - II

4. Write in detail about various methods employed for generation of AM waves. 15
5. (a) Discuss vector representation of FM. 8
(b) Compare various AM systems. 7

SECTION - III

6. (a) Discuss FM transmitter using reactance modulator. 8
(b) What is super heterodyne receiver? 7

7. Explain the following :

- (i) TDM 8
(ii) PPM 7

SECTION - IV

8. (a) Discuss channel capacity of PCM system. 7
(b) Discuss differential pulse code modulation. 8
9. (a) Discuss carrier and symbol synchronization in digital communication. 8
(b) Explain MSK. 7