

Roll No.

Total Pages : 03

MDQ/M-20

5505

COMMUNICATION SYSTEM

Paper V

Time : Three Hours]

[Maximum Marks : 55

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. 1 is compulsory.

(Compulsory Question)

1. (a) Discuss the working principle of PWM. 3
- (b) What do you understand by baseband data transmission ? 3
- (c) Define transmission path and path loss in satellite communication. 2
- (d) Write a short note on ISDN. 3

Unit I

2. Give model of communication system. How is it designed and analyzed ? 11

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3. (a) What is pulse code modulation (PCM) ? Explain its principle. 4
- (b) Derive the relation for signalling rate and transmission bandwidth in PCM system. 7

Unit II

4. (a) Differentiate between pulse and digital modulation techniques. 4
- (b) Explain, what is match filter ? How does it differ from optimum filter ? Derive an expression for impulse response of the match filter. 7
5. What do you understand by channel capacity ? Explain binary ASK and FSK schemes. 11

Unit III

6. (a) What is Facsimile ? Explain Facsimile reception. 8
- (b) Explain the need for station keeping. 3
7. What do you understand by error control coding ? Give one method of controlling errors with suitable example. 11

Unit IV

8. What is a RADAR ? Give its basics. List the advantages and disadvantages of the secondary surveillance radar over the primary radar system. **11**
9. Write short notes on the following :
- (a) Automatic exchange switching system **6**
 - (b) LAN. **5**