



19102703

QP CODE: 19102703

Reg No : .....

Name : .....

**UNDERGRADUATE (CBCS) EXAMINATION, OCTOBER 2019**

**Fifth Semester**

(Offered by the Board of Studies in Electronics)

**Open Course - EL5OPT03 - ELECTRONIC COMMUNICATION**

2017 Admission Onwards

ADFDC579

Maximum Marks: 80

Time: 3 Hours

**Part A**

*Answer any ten questions.*

*Each question carries 2 marks.*

1. What is wave propagation?
2. What is the wavelength range and frequency range of radio waves?
3. Define bandwidth
4. What is the purpose of demodulation?
5. Give any two advantages of FM over AM
6. Describe any two important goals of multiplexing
7. What is the total bandwidth required in an FDM system for all the users?
8. What is a digital system?
9. What is the draw back of using air and vacuum for transmitting energy?
10. Why are optical fibers secure, compared to other medium?
11. What does the term modem stands for?
12. What do you mean by an internal modem?

(10×2=20)

**Part B**

*Answer any six questions.*

*Each question carries 5 marks.*

13. What are the basic parts of a communication system? What do they do?





14. What is a half duplex system? Give an example
15. Write a short note on electromagnetic wave
16. Define modulation index of AM, FM and that of PM
17. How do you demodulate an FM signal?
18. Sketch a sine wave and another sine wave 45 degree out of phase with it.
19. Write any three advantages and three disadvantages of space division multiplexing.
20. Differentiate between guided medium and unguided medium
21. What is a mux modem?

(6×5=30)

**Part C**

*Answer any two questions.*

*Each question carries 15 marks.*

22. Define channel capacity. Write note on channel capacity of noisy-channel
23. Describe different modulation techniques
24. What do you understand by signal multiplexing? Explain the concepts of TDM and FDM
25. What is twisted pair? What are the advantages and disadvantages of it? Also distinguish between UTP and STP.

(2×15=30)

