

C 3529

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Name.....

Reg. No.....

**FOURTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION
APRIL 2021**

Electronics

ELE 4C 05—COMMUNICATION ELECTRONICS

Time : Two Hours

Maximum : 60 Marks

Section A

*Answer at least **eight** questions.*

Each question carries 3 marks.

All questions can be attended.

Overall Ceiling 24.

1. How many characteristics of a sine wave are variable for modulation ?
2. What is modulation index of an AM wave ?
3. How does the bandwidth of an AM signal relate with information signal ?
4. Define frequency modulation.
5. What is pre-emphasis ?
6. List any *two* comparisons of frequency and phase modulation.
7. State Sampling theorem.
8. Distinguish between pulse modulation and analog modulation.
9. What is quantization ?
10. Define Entropy.
11. Distinguish between bit rate and baud rate.
12. How does AM differ from ASK ?

(8 × 3 = 24 marks)

Turn over

Section B

Answer at least five questions.

Each question carries 5 marks.

All questions can be attended.

Overall Ceiling 25.

13. Explain with a block diagram a communication system.
14. With neat diagrams, explain a method of FM generation.
15. What are the advantages of FM over AM ?
16. Describe the generation of pulse width modulation.
17. Explain pulse code modulation.
18. Explain coherent BPSK generation with block diagram.
19. Explain coherent detection of binary FSK.

(5 × 5 = 25 marks)

Section C

Answer any one question.

Each question carries 11 marks.

20. Explain in detail FDM and TDM.
21. Explain the generation and demodulation of QPSK signals.

(1 × 11 = 11 marks)