

588

Register No.:

April 2024

*Time – Three hours*  
*(Maximum Marks: 100)*

- [N.B. 1. Answer all questions under Part-A. Each question carries 3 marks.  
2. Answer all the questions either (A) or (B) in Part-B. Each question carries 14 marks.]

PART – A

1. Define the characteristic impedance of symmetrical networks.
2. What do you mean by filters?
3. State the need for modulation.
4. Draw the frequency spectrum of AM modulation.
5. Differentiate between Direct and Indirect FM Transmitters.
6. Compare AM and FM.
7. Define PPM. List its applications.
8. What do you mean by Quantization?
9. What do you mean by surround sound system?
10. Differentiate between LED and OLED displays.

[Turn over.....

PART – B

11. (a) Explain the working of Parabolic reflector antenna.  
(Or)  
(b) Explain the effects of various layers of the Ionosphere in sky wave propagation.
12. (a) Draw the block diagram of High level AM Transmitter. Explain the working of each block.  
(Or)  
(b) Draw the block diagram of Super heterodyne receiver. Explain the working of each block.
13. (a) Explain frequency modulation. Explain how modulation index affects the frequency spectrum with neat sketch.  
(Or)  
(b) Draw the block diagram of Stereophonic FM transmitter. Explain the working of each block.
14. (a) Explain the generation and detection of PWM.  
(Or)  
(b) Explain the principle and working of Adaptive Delta Modulation. Draw its input and output waveforms.
15. (a) Explain the construction, principle and working of Velocity Ribbon Microphone.  
(Or)  
(b) Draw the block diagram of PAL Color TV receiver and explain the working of each block.
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