

357

April 2017

Time – Three hours
(Maximum Marks: 75)

- [N.B: (1) Answer any FIVE questions in each PART - A and PART - B.
Q.No. 8 in PART - A and Q.No. 16 in PART - B are compulsory.
(2) Answer division (a) or division (b) of each question in PART - C.
(3) Each question carries 2 marks in PART - A, 3 marks in Part - B
and 10 marks in PART - C.]*

PART – A

1. Differentiate between symmetrical and asymmetrical network.
2. What is an antenna?
3. Define modulation.
4. State the advantages of SSB system.
5. What is pulse modulation?
6. What is tweeter?
7. What is microphone?
8. Define aspect ratio.

PART – B

9. Define propagation constant.
10. Define skip distance.
11. Derive the expression for AM signal.
12. Why AGC system is used in radio receivers?
13. Draw the waveform of frequency modulation signal.
14. Draw the signal waveform of PAM.
15. Explain crossover network.
16. What is interlaced scanning?

[Turn over.....

PART – C

17. (a) Derive the design equations of symmetrical T-attenuator.
(Or)
(b) Explain about sky wave propagation.
18. (a) Explain SSB transmitter with block diagram.
(Or)
(b) Explain superheterodyne receiver with block diagram.
19. (a) Explain the working of stereophonic FM transmitter with block diagram.
(Or)
(b) Explain the generation and detection of PCM signal.
20. (a) Explain the working of carbon microphone with neat diagram.
(Or)
(b) Explain the construction and working of horn type loudspeaker.
21. (a) Draw the block diagram of monochrome TV receiver and explain it.
(Or)
(b) Write short notes on: (i) Cable TV (ii) CCTV.