

773

October 2014

Time - Three hours
(Maximum Marks: 75)

[N.B: (1) Answer any fifteen questions in PART - A and division (A) or division (B) of each question in PART - B.

(2) Each question carries 1 (one) mark in PART - A and 12 (twelve) marks in PART - B.]

PART - A

1. What is the use of equalizer?
2. What is the attenuation value in the pass band of an ideal filter?
3. Define radiation pattern.
4. Name the elements of Yagi antenna.
5. What is meant by frequency converter stage?
6. Give the formula for modulation index of an AM signal.
7. Mention the types of transmitters.
8. Define AGC.
9. Define frequency modulation.
10. Compare phase discriminator and ratio detector.
11. What is the use of AFC?
12. Define sampling.
13. What is cross over network?
14. What is the property utilized to convert the sound signal into electrical signal in a condenser microphone?
15. What is DVD?
16. Expand DTS.
17. Define aspect ratio.
18. What is the use of sync pulse?
19. Expand PAL.
20. What is handy cam?

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PART - B

21. (A) Derive the expression for L , C and f_c values of a symmetrical 'T' LPF constant-K type filter.

(Or)

- (B) Explain the ionospheric layers with neat diagram.

22. (A) Explain the superheterodyne receiver with block diagram.

(Or)

- (B) (i) Explain balanced modulator with a neat diagram.
(ii) Draw the AM VSB signal waveform.

23. (A) Explain ratio detector with a neat circuit diagram.

(Or)

- (B) Draw the block diagram of PCM transmitter and receiver and explain.

24. (A) Explain the construction and working of cone type loudspeaker.

(Or)

- (B) Explain in detail about CD recording and reproduction.

25. (A) Draw the block diagram of PAL colour TV receiver and explain.

(Or)

- (B) (i) Explain LCD display unit.
(ii) Explain LED display unit.
