

Note: i) Attempt one question from each unit, ii) Each question carry equal marks.

Unit-I

1. a) What is flicker? How it can be removed? Explain interlaced scanning?
- b) Explain the working principle of silicon vidicon picture tube.

OR

2. a) Draw the composite video signal and explain the importance of all the pulses.
- b) Explain about the CCD image sensors.

Unit-II

3. a) Explain the principle working of CRT picture tube.
- b) With the help of block diagram explain TV transmitter.

OR

4. a) Explain the principle of plasma and LCD displays.
- b) With the help of block diagram explain colour television receiver.

Unit-III

5. a) Discuss the merits of digital technology, b) Discuss the principle working of CCTV.

OR

6. a) Discuss the principle working of video and audio processor unit.
- b) Discuss the principle working of HDTV.

Unit-IV

7. a) With the help of block diagram explain the working of Radar and determine the Radar range equation.
- b) Discuss the principle of MTI Radar.

OR

8. a) What do you understand by Radar cross section of target? Also discuss about pulse repetition frequency and range ambiguities.
- b) Discuss the principle working of FM - CW radar.

Unit-V

9. Write short notes on the following

- a) Displays type A and PPL      b) Synthetic aperture radar.

OR

10. Write short notes on the following

- a) Air Surveillance Radar (ASR)      b) Bistatic radar.