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N – 6639

Reg. No. :

Name :



Eighth Semester B.Tech. Degree Examination, May 2022

(2008 Scheme)

08.802 : RADAR AND TELEVISION ENGINEERING (T)

Time : 3 Hours

Max. Marks : 100

PART – A

Answer **all** questions. Each question carries **4** marks.

1. If the Radar operates at a frequency of 5 GHz, then find the Doppler frequency of an aircraft moving with a speed of 100 KMph.
2. Explain the principle of CCD camera tube.
3. List out the objectives of MPEG-4.
4. Discuss the advantages of LCD panels.
5. Explain flicker in TV systems.
6. Write the principle of operation of SECAM colour systems.
7. Explain the basic AGC circuit.
8. What are marker beacons and explain different types of marker beacons?
9. Discuss the role of EHT in TV circuits.
10. In TV system used in India, the total number of scanning lines per frame is 625 and the lines lost per fields is 20. Find vertical and horizontal resolutions.

(10 × 4 = 40 Marks)

P.T.O.



PART – B

Answer any **two** questions from each module Each question carries **10** marks.

Module – I

11. Explain the salient features of radar receivers and discuss how the local oscillator noise is removed.
12. What are modulators, explain any two-pulse modulator schemes used in radar systems?
13. With a block diagram explain frequency modulated CW (FM-CW radar).

Module – II

14. With block diagram explain NTSC receiver.
15. Draw the block diagram of PAL coder and explain its working.
16. Describe the working of delta gun colour picture tube.

Module – III

17. Draw and explain the DVB-S system and compare it with DVB-S2 system.
18. Draw and explain MPEG encoder and decoder.
19. Explain the working of a plasma display and list its advantages and disadvantages.

(6 × 10 = 60 Marks)

