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H – 3383

Reg. No.

Name :

Eighth Semester B.Tech Degree Examination, November 2019

08.802 RADAR AND TELEVISION ENGINEERING (T)

(2008 Scheme)

Time : 3 Hours

Max. Marks : 100

PART – A

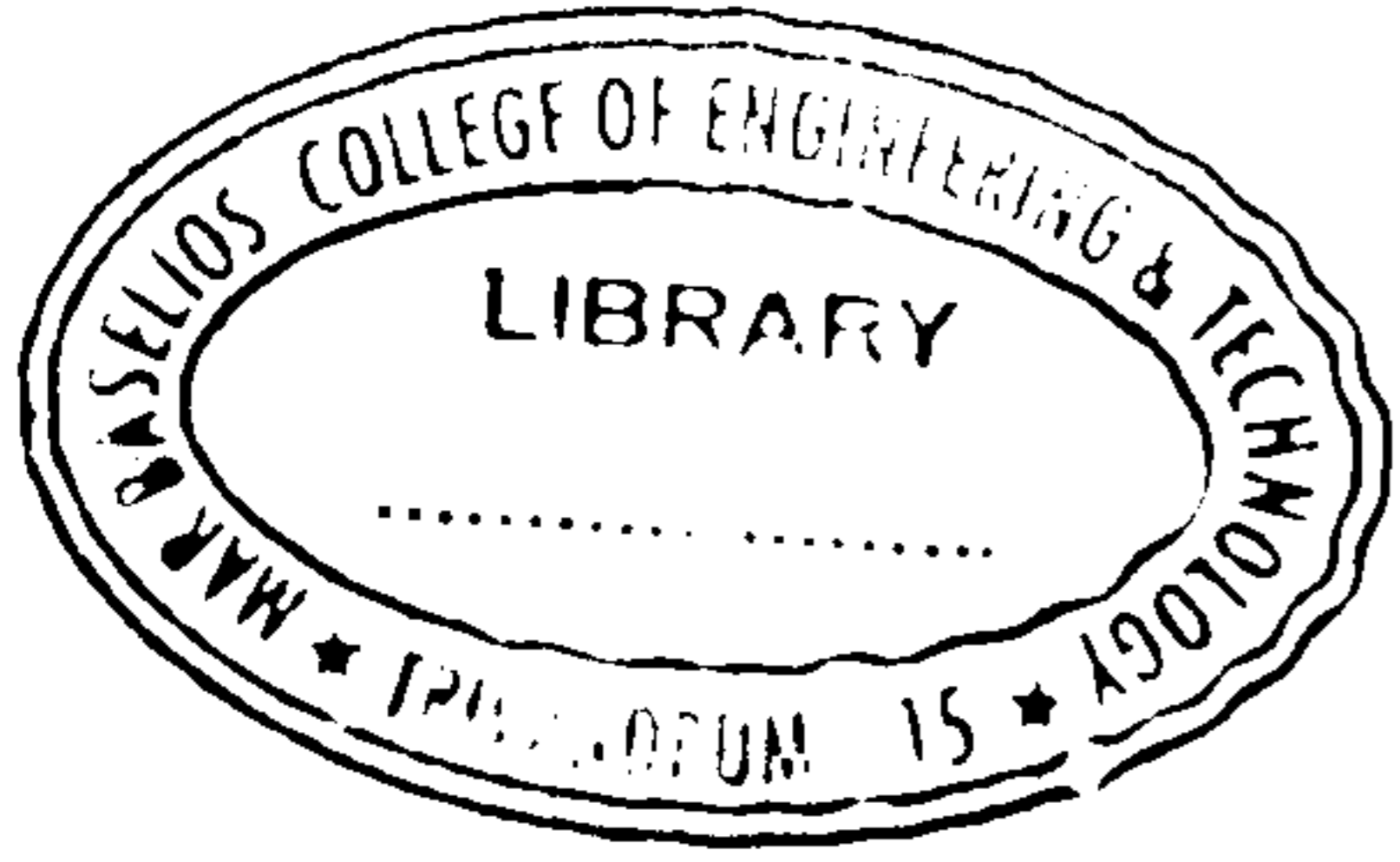
Answer **all** questions. Each question carries **4** marks

1. Draw and explain a delay line canceller circuit.
2. Briefly explain the working of PPI display.
3. If the radar operates at a frequency of 5GHz, then find the Doppler frequency of an aircraft moving with a relative velocity of 100KMPH.
4. Describe the working principle of loop antenna.
5. What is a composite video signal? Explain.
6. Write the principle of CCD camera tube.
7. What are the advantages of vestigial sideband transmission? Explain.
8. Explain the working of plasma TV.
9. Write a note on MPEG2.
10. Explain DCT based compression of image frames.

(10 × 4 = 40 Marks)

P.T.O.





PART – B

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

Module – I

11. Derive the radar range equation and also explain the different factors affecting the maximum range of radar.
12. MTI radar operates at a frequency of 6 GHz. With a PRF of 1 KHz. Find the 1st, 2nd, 3rd blind speed.
13. Draw and explain a radio compass receiver.

(2 × 10 = 20 Marks)

Module – II

14. Draw the block diagram of a PAL coder and explain its working.
15. What is negative modulation? Also write its advantages.
16. Write short note on
 - (a) Need of AGC in receivers
 - (b) EHT generation
 - (c) Video detector.

(2 × 10 = 20 Marks)

Module – III

17. Explain the different methods to receive digital TV signal.
18. Explain various display technologies used in digital TV transmission.
19. What is digital TV? With block diagram explain the generation, transmission and reception of digital TV signal.

(2 × 10 = 20 Marks)

