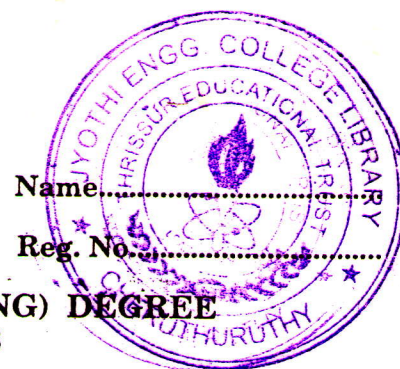


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Name

Reg. No.

**SEVENTH SEMESTER B.TECH. (ENGINEERING) DEGREE
EXAMINATION, DECEMBER 2006**

EC/AI/IC 2K 705 E—TV ENGINEERING RADAR SYSTEMS

Time : Three Hours

Maximum : 100 Marks

- I. (a) Write the advantages of CCD camera.
(b) Differentiate VSB modulation scheme from SSB scheme.
(c) What is electron optics in TV picture tube ? Explain it.
(d) Explain the significance of Bandwidth in TV applications.
(e) What is CCTV ? Explain its characteristics.
(f) What are scrambler and unscrambler ? Explain them.
(g) Write the limitations of simple Radar Range equation.
(h) What is a Doppler Radar ? What is its applications ?
- (8 × 5 = 40 marks)
- II. (a) Explain what is meant by blanking and synchronizing pulses ? What are the functions of these pulses in TV ? Explain.
- Or
- (b) (i) What is Interlaced scanning ? Explain its significance.
(ii) Describe by a block diagram, the general working of a TV receiver.
- III. (a) (i) Describe the construction of TV picture tube with neat sketches.
(ii) What are blanking and sync Pulses ? Explain.
- Or
- (b) Explain in detail the principle of PAL and SECAM coder with neat sketches.
- IV. (a) (i) Describe how the level of background brightness is maintained at the same level for each segment of the signal, with neat sketches.
(ii) Explain about cable decoders..
- Or
- (b) Write short notes on :
(i) MPEG standard.
(ii) Digital TV specification.
- V. (a) Differentiate CW radar from FM-CW radar. Explain the principles of both the radars with neat sketches.
- Or
- (b) (i) Explain the operation of the sweep circuit and enumerate its special features.
(ii) Give an account on 'Radar frequencies'.

(4 × 15 = 60 marks)