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**Question Paper Code : 31334**

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2013.

Seventh Semester

Electronics and Communication Engineering

EC 2034/EC 1007/EC 711 – TELEVISION AND VIDEO ENGINEERING

(Regulation 2008)

(Common to PTEC 2034 – Television and Video Engineering for B.E.(Part – Time)  
Electronics and Communication Engineering – Regulation 2009)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. How is interlaced scanning different from sequential scanning?
2. Define contrast ratio.
3. State the type of circuits used to separate horizontal and vertical sync pulses.
4. What are trap circuits?
5. Define hue and saturation.
6. What are weighting factors?
7. Mention the use of ACC amplifier.
8. Why different bandwidths are assigned to Q and I signals?
9. Differentiate DVD from CD.
10. List the basic elements of projection system.

PART B — (5 × 16 = 80 marks)

11. (a) (i) Illustrate the working principle of Image Orthicon camera tube. List its drawback. (10)  
(ii) Justify why all TV system have odd number of scanning lines. (6)
- Or
- (b) (i) Draw and explain composite video signal. (10)  
(ii) Brief why negative modulation technique is used in TV system. (6)
12. (a) (i) Draw and explain the block diagram of TV transmitter. (10)  
(ii) Brief the factors that decide the choice of IF in TV system. (6)
- Or
- (b) (i) List the need and types of AGC circuit used in TV system. (10)  
(ii) Discuss the construction features and working principle of turnstile antenna. (6)
13. (a) Discuss the gun structure and working principle of delta gun colour picture tubes. (16)
- Or
- (b) (i) Narrate the need for pincushion distortion correction and the method employed to obtain a distortion free raster (8)  
(ii) What are purity and convergence adjustments? Explain the function of degaussing coil in a colour TV receiver. (8)
14. (a) Explain the SECAM encoder and decoder with the help of a block diagram. Compare its performance with standard systems. (16)
- Or
- (b) Write short notes on :  
(i) Color Killer Circuit (8)  
(ii) U and V demodulators. (8)
15. (a) (i) Narrate the working of Cable TV. (8)  
(ii) Illustrate the need and concept of scrambling technique. (8)
- Or
- (b) Brief the following :  
(i) LCD (8)  
(ii) 3DTV. (8)