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Question Paper Code : 51418

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2016

Seventh Semester

Electronics and Communication Engineering

EC 2034/EC 1007/EC 711/10144 ECE 44 – TELEVISION AND VIDEO ENGINEERING

(Regulations 2008/2010)

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

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions.

PART – A (10 × 2 = 20 Marks)

1. Why does interlaced error cause ?
2. Define screen persistence.
3. “Phase Distortion is not significant in audio amplifiers” – Justify this statement.
4. Give the purpose of using VHF Tuner.
5. Define hue and saturation.
6. What are weighting factors ?
7. List the features of PAL color system.
8. Draw the circuit diagram of ACC amplifier.
9. Can we give teletext signals to black and white receivers ?
10. What is character ruining ?

PART – B (5 × 16 = 80 Marks)

11. (a) (i) List and explain the merits and demerits of positive and negative amplitude modulations. (8)
- (ii) Draw cross-sectional view of an Image Orthicon camera tube and discuss on how it develops video signal. (8)
- OR**
- (b) Illustrate the interlaced scanning format in detail. Mention the number of active lines traced out. (16)
12. (a) Draw the detailed block diagram of a monochrome television receiver and explain the functions of each block. (16)
- OR**
- (b) (i) What is DC re-insertion ? Why is it required ? (8)
- (ii) Explain the principle of video detector with a neat circuit diagram. Mention its merits. (8)
13. (a) (i) Draw the Delta-Gun colour picture tube and explain its operation. What are the drawbacks of Delta-Gun tube ? (10)
- (ii) With the help of a diagram, explain automatic degaussing circuit. (6)
- OR**
- (b) (i) Describe three colour theory with suitable diagram. (8)
- (ii) Write short note on pincushion correction techniques. (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) Colour Killer Circuit (8)
- (ii) U and V demodulators (8)
15. (a) (i) What is satellite TV Technology ? State its merits and applications. (4)
- (ii) How can you use Geo stationary satellites for satellite TV technology ? Explain in detail. (6)
- (iii) Describe the features of Electronics Domestic Broadcast System. (6)
- OR**
- (b) Write detailed notes on the following with appropriate diagrams :
- (i) DVD playback system. (5)
- (ii) LCD and plasma screen receivers (5)
- (iii) 3DTV. (6)