Reg. No. : | | | | | | | | | | | | |

Question Paper Code : 11281

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2014.

Seventh Semester

Electronics and Communication Engineering

080290057 – TELEVISION AND VIDEO ENGINEERING

(Regulation 2008)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Why are blanking pulses not used as sync pulses?
2. Define aspect ratio of a TV image.
3. What do you mean by AFT?
4. Mention the functions of a reflector and a director in a yagi antenna?
5. State the major function of VHF Tunes.
6. What is dipole array?
7. Define frequency dispersion?
8. Lists the major tasks to be done by detector.
9. In what way picture tube of flat panel display is different?
10. Mention the philosophy behind the working of LCD.

PART B — (5 × 16 = 80 marks)

11. (a) Justify the choice of 625 lines for TV transmission. Why is the total number of lines kept odd in all TV standards.

Or

(b) Sketch the composite video signal waveform and indicate the different parts of the signal. Explain their functions.

12. (a) Present and compare : PAL, NTSC and SECAM system in detail.

Or

(b) Explain the generation and modulation details of the I, Q signals in an NTSC colour TV system. Why is colour sub carrier fixed at 3.579545 MHz?

13. (a) Draw the detailed block diagram of a television transmitter and explain the functions of each block.

Or

(b) Examine the effectiveness of :

(i) Shadow zones. (8)

(ii) Booster amplifers. (8)

14. (a) Discuss about the following :

(i) Pincushion correction. (8)

(ii) Automatic degaussing. (8)

Or

(b) With necessary diagram explain the Delta–Gun colour picture tube. Describe how purity and convergence are achieved in it.

15. (a) Draw a detailed block diagrm to represent cable TV system and explain its working principle. Explain the scrambling and descrambling employed in it.

Or

(b) With the help of a neat functional diagram, explain the operation of a digital TV receiver. Present its merits and limitations.

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