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

A 1230

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2008.

Sixth Semester

Electronics and Communication Engineering

EC 345 — TELEVISION AND VIDEO ENGINEERING

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — ($10 \times 2 = 20$ marks)

1. Define Aspect ratio.

2. What is the purpose of blanking pulses?

3. What are the merits of negative transmission?

4. What are inter carrier-sound receivers?

5. Define hue and saturation.

6. Write down the transmitter matrix with reference to colour television system.

7. State the advantages of PAL colour system over NTSC colour system.

8. What is the purpose of colour killer circuit?

9. What is a TV booster?

10. What is a high definition television?

PART B — (5 × 16 = 80 marks)

11. (a) Explain the working of a TV picture tube. Explain the composite video signal.

Or

(b) (i) Briefly describe the operational principle of a camera tube of Vidicon format. (9)

(ii) What is interlaced scanning? How does it help in removing the undesirable flickering effects? (7)

12. (a) (i) Explain the working of a television transmitter antenna and a television receiver antenna. (10)

(ii) Why is AM preferred for picture signal transmission? (6)

Or

(b) (i) Explain the working of Automatic Gain control circuit and automatic frequency control circuit. (10)

(ii) Explain the factors which influence the choice of intermediate frequencies in TV receivers. (6)

13. (a) Explain the working of a colour television picture tube.

Or

(b) Write notes on NTSC, PAL and SECAM system.

14. (a) Explain in detail, the colour signal processing as done in PAL-D receivers.

Or

(b) Explain the subcarrier generation and control circuits used in PAL-D receivers.

15. (a) Explain about remote control unit used in television systems.

Or

(b) Write notes on :

(i) Satellite television. (8)

(ii) Videodisc system. (8)
