

**Electronics and Communication Engineering Department****Subject Name: - Audio Video Systems****Subject Code: - 2151101****Assignment 1**

1. Describe the meaning of Luminance, Hue and Saturation as applied to colour picture.
2. Define following terms: 1) Pixels 2) Scanning 3) Aspect Ratio 4) Image Continuity 5) Brightness 6) Contrast 7) Compatibility 8) Weighting factors.
3. What is the main difference between monochrome and colour TV transmitter?
4. Draw a simplified block diagram of monochrome TV transmitter and label all the blocks.
5. Describe interlaced scanning.
6. Justify the choice of 625 lines for TV transmission
7. Explain the Composite Video signal in details.
8. Define following terms: 1) Pedestal, 2) Pedestal Height, 3) Peak white Level, 4) Blanking Level, 5) Colour Burst
9. Sketch the details of horizontal blanking and sync pulses. Label on it (i) front porch, (ii) horizontal sync pulse (iii) Back Porch.
10. Explain why the blanking pulses are not used as sync pulses.
11. Justify the need for pre and post equalizing pulses.
12. Name the Primary colours used in colour television. What is GRASSMAN'S law?
13. What do you understand by compatibility between monochrome and colour TV systems how is this achieved?
14. Justify the statement "(G-Y) is not chosen for transmission.
15. Which modulation system is used for picture and sound? Why? Explain it in detail. Also give the comparison of positive and negative modulation. Which one is mostly used?
16. Explain the merits and demerits of negative modulation in TV transmission.
17. Define: Positive Modulation and Negative Modulation.

**Note: Submit on or before 21 July.**