

Code No: **R4204A**

R10

Set No. 1

IV B.Tech II Semester Supplementary Examinations, April/May-2017 TELEVISION ENGINEERING

(Electronics and Communication Engineering)

| Time: 3 hours | | | Max. Marks: 75 | |
|--|---------------------------------|---|----------------|--|
| Answer any Five Questions All Questions carry equal marks ***** | | | | |
| 1 | a) b) | Explain the Composite Video Signal with the help of a neat sketch. Describe standard scanning sequence used in TV? | [8] [7] | |
| 2 | a) b) | What is VSB transmission & Why is it used for transmission of TV picture signals? Explain Turnstile antenna & dipole antenna systems for transmission of TV signal. | [7] [8] | |
| 3 | a) b) | Differentiate the photoconduction and photoemission processes. Draw a sketch of any one camera tube based on photoconduction property and explain in detail. | [5] [10] | |
| 4 | a) b) | Describe the features of PAL colour TV system. Give the comparison of different types of picture tubes. | [7] [8] | |
| 5 | a)b) | What are the considerations for choice of the differentiating & integrating circuit used for separating H & V pulses? Draw circuit & waveform. State the color processing function of typical chroma decoder. | [10] [5] | |
| 6 | a) b) | Describe the advantages of Infrared remote control & discuss the technique. Describe the factors that decide the choice of IF in a TV system. | [8] [7] | |
| 7 | a)b) | Draw the block diagram of PAL encoder & decoder and explain its functioning. Compare its performances with NTSC system. Why a burst of subcarrier is sent along with the sync & blanking pulses. | [10] [5] | |
| 8 | a) b) | Why is trapezoidal voltage waveform necessary to drive the vertical deflection coil? Describe the features of Direct to Home Satellite TV. | [7] [8] | |