

Code No: **R4204A****R10****Set No. 1****IV B.Tech II Semester Supplementary Examinations, April - 2018****TV ENGINEERING****(Electronics and Communication Engineering)****Time: 3 hours****Max. Marks: 75****Answer any FIVE Questions
All Questions carry equal marks**

- 1 a) What is meant by interlaced scanning? Explain with neat sketches. [8]
b) Sketch the composite video signal waveform and explain each level. [7]
- 2 a) What is vestigial sideband (VSB) transmission and why it is used for TV transmission? [8]
b) Explain the principle of Yagi antenna with a neat diagram. [7]
- 3 a) Compare the image orthicon and vidicon TV camera tubes. [8]
b) Give the constructional details of silicon diode array vidicon and explain its principle. [7]
- 4 a) With a neat sketch, explain various elements of a picture tube. [8]
b) Describe the features of PAL colour TV system. [7]
- 5 a) Draw a block diagram of sound section in a TV receiver and explain its operation. [8]
b) Explain with a suitable block diagram the encoding process in the PAL colour system. [7]
- 6 a) Draw the circuit diagram of a keyed AGC system and describe its operation. [8]
b) Draw the basic circuit of a video detector and explain its operation. [7]
- 7 a) Explain the delay line method of separating U and V signals in a PAL receiver. [8]
b) Explain the function of a colour killer circuit in the path of chrominance signal in the TV receiver. [7]
- 8 a) Explain the operation of single ended AFC circuit. [8]
b) Explain the features and advantage of DTH satellite TV. [7]