

**Code: 9A04705**

**R09**

B.Tech IV Year I Semester (R09) Regular & Supplementary Examinations December 2014

**T.V. ENGINEERING**  
(Electronics and Communication Engineering)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions  
All questions carry equal marks

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- 1 (a) Draw the composite video signal and give the details of each portion.  
(b) Explain how interlaced scanning takes place.
- 2 (a) Explain the process of sound and picture transmission in T.V.  
(b) Explain the channel bandwidth required for T.V. system with neat diagram.
- 3 Explain in detail various types of T.V camera tubes.
- 4 (a) Write in detail, the Indian standards used for monochrome T.V.  
(b) Write about electro static focusing process in picture tubes.
- 5 (a) Draw and explain PAL-D color receiver.  
(b) What is raster circuit? Explain.
- 6 (a) What is AGC? Explain in detail.  
(b) Write a short notes on digital tuning techniques.
- 7 Explain briefly the functions of various blocks of a PAL-D decoder and thus trace the path of chroma signal from video detector to the input of matrixing circuit.
- 8 (a) What is AFC? Explain the working of single ended AFC circuit.  
(b) Write about digital terrestrial T.V.

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