

**B.Tech. - VIEP - ELECTRONICS AND
COMMUNICATION ENGINEERING (BTECVI)**

Term-End Examination

00266

June, 2016

BIELE-001 : TELEVISION ENGINEERING

Time : 3 hours

Maximum Marks : 70

Note : Attempt any seven questions. All questions carry equal marks.

1. (a) What is compatibility in TV transmission ? 3
(b) Draw and explain the transmitter block diagram of television. 7
2. What is meant by equal vertical and horizontal resolution ? Derive the expression for highest modulating frequency in a television system. 10
3. What is a ghost image ? What causes it to appear on the TV receiver screen along with the reproduced signal ? 10
4. Explain with suitable sketches the basic principle of solid state image scanner camera and describe how CCD array is scanned to provide interlaced scanning. 10

5. With the help of a neat diagram, discuss the monochrome TV receiver circuits in detail. 10
6. Explain the working of PAL Coder with the help of a block diagram. 10
7. Draw the Delta-Gun colour picture tube and explain its operation. What are the drawbacks of Delta-Gun tube ? 10
8. Give the three colour television systems used in the world with their main features. Explain the colour television system used in India. 10
9. What are NTSC standards ? Give the general specification for NTSC standards. 10
10. Write short notes on any *two* of the following : $2 \times 5 = 10$
 - (a) Blanking
 - (b) Luminance and hue
 - (c) Wave traps

