

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

**Term-End Examination**

**December, 2017**

00909

**BIELE-001 : TELEVISION ENGINEERING**

*Time : 3 hours*

*Maximum Marks : 70*

---

**Note :** Attempt any **seven** questions. All questions carry equal marks. Assume missing data suitably, if any. Use of scientific calculator is allowed.

---

---

1. Write short notes on the following :  $2 \times 5 = 10$ 
  - (a) Image Continuity
  - (b) Picture Resolution
  
2. Sketch video signal waveforms for three successive lines and indicate the following :  $4 \times 2 \frac{1}{2} = 10$ 
  - (a) Extreme white level
  - (b) Blanking level
  - (c) Pedestal height
  - (d) Sync Pulse level
  
3. Discuss the NTSC colour system and coder with its limitations. 10

4. With a neat block diagram, explain the working of a SECAM coder and decoder. 10
5. Explain with the help of a sketch, the nature of colourburst in the PAL system. How is the ident signal derived from it ? State the purpose of the ident signal. 6+2+2
6. Draw a neat diagram of the receiver section of an antenna and explain the working of its RF and IF amplifier sections. 10
7. Discuss the working principles of the following : 5+5
- (a) Sync processing and AFC circuit
  - (b) Vertical and Horizontal deflection circuit
8. Describe Community Antenna Television (CATV) system and Scrambling methods. 5+5
9. Write short notes on any **two** of the following : 2×5=10
- (a) CCD Camera
  - (b) Interlaced Scanning
  - (c) Hue and Saturation in Colour TV
-