

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

Term-End Examination

December, 2015

BIELE-001 : TELEVISION ENGINEERING

Time : 3 hours

Maximum Marks : 70

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

1. (a) Explain Vestigial sideband transmission used in television. 4
- (b) Discuss the merits and demerits of positive and negative modulation and justify the choice of negative modulation in most TV systems. 6
2. What is flicker ? Explain how it can be eliminated in interlaced scanning. 10
3. Draw the block diagram of a Monochrome TV receiver and explain its working in detail. 10
4. (a) Explain the separation of vertical and horizontal sync pulses in a TV receiver with a circuit diagram. 5
- (b) Draw the AFC circuit and explain its operation. 5

5. Explain the colour television camera system with a block diagram. Explain how Y and colour difference signals are developed from R, G, B signals. 10
 6. Explain the concept of SECAM coder and decoder with the help of a neat diagram. 10
 7. Explain, with the help of a neat schematic diagram, the working of modern Cable TV system. 10
 8. Give detailed notes on Digital TV transmission and reception. 10
 9. Why is the FM chosen for transmission of sound signal in a TV system ? Why are pre-emphasis and de-emphasis circuits presented at transmitter and receiver respectively ? 10
 10. Write short notes on any *two* of the following : 2×5=10
 - (a) NTSC Standard
 - (b) CATV
 - (c) PAL Coder and Decoder
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