

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

Term-End Examination

June, 2015

00804

BIELE-001 : TELEVISION ENGINEERING

Time : 3 hours

Maximum Marks : 70

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

1. (a) Which frequency is used in video and audio carriers in Indian Standard of TV Broadcasting ? What are the modulations used for these carriers ?
(b) What is horizontal and vertical scanning ? Explain the various horizontal and vertical deflection current parameters. 5+5=10

2. (a) Why is Vestigial Side Band (VSB) preferred for TV broadcasting ? Sketch the frequency spectrum of complete TV channel employing the VSB system.
(b) Explain interlace error. How does it affect the quality of picture ? 5+5=10

3. With the help of a neat diagram, explain the functional block for the sound section and tuner in a TV receiver. 10
4. (a) How is chrominance signal formed in colour TV? 5+5=10
- (b) What is a luminance signal? 5+5=10
5. Draw the block diagram of NTSC colour coder and decoder and explain the working in detail. 10
6. Explain I signal, Q signal, B-Y signal, R-Y signal and G-Y signal used in colour TV system in detail. 10
7. What are the most common TV standards used in the world? Explain NTSC standards with general specifications. 10
8. (a) Draw the block diagram of PAL TV receiver.
- (b) Explain the functions of various patterns available in a colour TV pattern generator. 5+5=10
9. Write short notes on any *two* of the following: 5+5=10
- (a) Coaxial Cable for CATV
- (b) CCD Camera
- (c) Scrambling Methods
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