

**B.TECH. IN ELECTRONICS AND
COMMUNICATION ENGINEERING (BTECVI)**

Term-End Examination

December, 2013

BIELE-001 : TELEVISION ENGINEERING

Time : 3 hours

Maximum Marks : 70

Note : (i) Attempt any seven questions.

(ii) All questions carry equal marks.

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1. (a) What is Interlaced Scanning ? How does it help to eliminate flicker ? 5
 - (b) What is horizontal and vertical scanning ? Explain various horizontal and vertical deflection current parameters. 5
 2. (a) What is VSB and how VSB correction is carried out ? 5
 - (b) Derive general formula for horizontal resolution and bandwidth for TV system. 5
 3. What is blanking ? Draw H-blanking pulse, showing width of various section of this pulse. Explain formation of black edges on the left hand side and right hand side of the screen. 10
 4. Draw the block diagram of PAL colour coder and decoder and explain the working in detail. 10

5. Explain the functions of the following in a colour TV receiver. 4x2.5=10
- (a) SAW filter
 - (b) FBT
 - (c) ACC
 - (d) Synchronous separator
6. Differentiate NTSC, PAL and SECAM. 10
7. Draw a neat block diagram of Digital TV receiver and explain its working. 10
8. What do you understand by I and Q signals ? Explain why different bandwidths are assigned to I and Q signals ? 10
9. Explain the schematic diagram of a modern cable TV system and briefly discuss the wave traps methods. 10
10. Write short notes on **any two** of the followings :
- (a) Co-axial cable for CATV 2x5=10
 - (b) IF Response Curve
 - (c) CCD Camera
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