No. of Printed Pages : 2

BIELE-001

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

Term-End Examination

00683

June, 2018

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. With neat diagram, explain vestigial sideband modulation scheme. State its advantages over other modulation schemes. *10*

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. (a) What is line of sight transmission ? *5*

(b) What are the interferences and losses suffered by TV signals ? *5*

4. Discuss the working of PAL colour coder system and state its limitations. *10*

5. (a) Explain the factors that influence the choice of intermediate frequencies. *5*

(b) Explain the working of horizontal and vertical deflection circuits in the television receiver. *5*

6. Describe the principle of working of CATV. How is it different from Digital TV ? *7+3*

7. (a) Explain the sampling structure of NTSC Standard. *5*

(b) What is meant by audio range and audio signal dynamic range ? *5*

8. Write short notes on any ***two*** of the following : *2×5=10*

(a) Video Amplifiers

(b) Scrambling methods

(c) CCD Camera

9. Draw the block diagram and explain the various components of a television transmitter. *10*