

**DIPLOMA – VIEP – ELECTRONICS AND
COMMUNICATION ENGINEERING (DECVI)**

00399 Term-End Examination
December, 2017

BIEL-034 : AUDIO AND VIDEO ENGINEERING

Time : 2 hours

Maximum Marks : 70

Note : Attempt any **five** questions. Question no. 1 is **compulsory**. All questions carry equal marks.

1. Select the best alternative.

$7 \times 2 = 14$

(a) A woofer should be fed from the input through a

- (i) Low pass filter
- (ii) High pass filter
- (iii) Band pass filter
- (iv) Band stop filter

- (b) A video consists of a sequence of
 - (i) Frames
 - (ii) Signals
 - (iii) Packets
 - (iv) Slots

- (c) In a television receiver, an electron beam is deflected by
 - (i) Electromagnetic
 - (ii) Electrostatic
 - (iii) Either (i) or (ii)
 - (iv) None of these

- (d) Receiving antenna for a television is normally a
 - (i) Folded dipole
 - (ii) Parabolic reflector
 - (iii) Yagi antenna
 - (iv) Loop antenna

- (e) Which of the following camera tubes uses lead oxide (PbO) for the photoconductive target plate ?
 - (i) Vidicon
 - (ii) Plumbicon
 - (iii) Saticon
 - (iv) Image Orthicon

- (f) Camera signal output without sync is called
- (i) Black burst
 - (ii) Generator lock video
 - (iii) Composite video
 - (iv) Non-composite video
- (g) In a TV system, indicate the true statement.
- (i) Picture is AM, sound is FM.
 - (ii) Picture is FM, sound is AM.
 - (iii) Picture is AM, sound is AM.
 - (iv) Picture is FM, sound is FM.
2. (a) Draw and explain the block diagram of a Public Address (PA) system with its applications. 10
- (b) Explain the function of a Graphic equalizer. 4
3. (a) What are the advantages of a fluorescent display system used in a CD player? 4
- (b) Explain the working principle of detection process used in a CD player with a neat diagram. 10
4. (a) What is the need of standards for colour signal transmission and reception? 4
- (b) Discuss the important specifications of CCIR-B standard in detail. 10

5. Draw and explain the block diagram of Colour TV transmitter with the help of a neat sketch. 14

6. With the help of a labelled block diagram, explain the following :

(a) Burst pulse blanking process 7

(b) EHT generation 7

7. Write short notes on any **four** of the following : $4 \times 3 \frac{1}{2} = 14$

(a) Dolby NR Recording System

(b) Crossover Network

(c) Delta Gun Picture Tube

(d) NTSC System

(e) DTH (Direct to Home) System

(f) CCTV System
