No. of Printed Pages : 3

BIEL-034

DIPLOMA – VIEP – ELECTRONICS AND COMMUNICATION ENGINEERING (DECVI)

Term-End Examination

00285

June, 2014

BIEL-034 : AUDIO AND VIDEO ENGINEERING

Time : 2 hours *Maximum Marks : 70*

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

1. State True or False : *7×2=14*

(a) Treble control is used to boost the low frequencies.

(b) The attributes of colour are hue, saturation and brightness.

(c) A PAL system is basically a 625-line system.

Choose the correct answers for the following :

(d) Which TV system is used in India ?

(i) PAL-N

(ii) CCIR-B

(iii) PAL-B

(iv) None of these

(e) Aspect ratio of a HDTV is

(i) 16 : 9

(ii) 4 : 3

(iii) 5 : 3

(iv) None of these

(f) Sampling rate used for CD recording is

(i) 43·1 kHz

(ii) 44·1 kHz

(iii) 45·1 kHz

(iv) None of these

(g) Primary colours are

(i) Red, Blue and Green

(ii) Red, Blue and Grey

(iii) Red, Black and Green

(iv) None of these

2. (a) Differentiate between stereo amplifier and mono amplifier. 7

(b) Compare the performance of different types of speakers. 7

3. (a) Describe the principle and working of detection used in CD-player. 7

(b) Explain the various components used in CD mechanism namely (i) CD pick-up assembly (ii) CD Lens. 7

4. (a) What is VSB ? Why and how is it used in TV systems ? 7

(b) Draw a composite video signal showing (i) Horizontal sync pulse details (ii) Vertical sync pulse details (ii) Equalizing pulse. 7

5. (a) Discuss the merits and demerits of negative modulation. 7

(b) Explain the working principle of Vidicon camera tube. 7

6. (a) Draw the block diagram of a PAL-D decoder. 7

(b) Describe the basic circuit used for separation of U and V signals. 7

7. (a) Explain the working principle of Dish Antenna. 7

(b) Compare MATV, CATV and CCTV. 7

8. Write short notes on any ***four*** of the following :

$4 \times 3\frac{1}{2} = 14$

(a) Grassmann's Law

(b) Brightness and Contrast controls

(c) Delta Gun Picture Tube

(d) Yagi-Uda Antenna

(e) Earphone

(f) Harizontal and Vertical resolution