



C09-EC-406

3472

**BOARD DIPLOMA EXAMINATION, (C-09)
OCT/NOV—2014
DECE—FOURTH SEMESTER EXAMINATION**

AUDIO AND VIDEO SYSTEMS

Time : 3 hours]

[Total Marks : 80

PART—A

3×10=30

Instructions : (1) Answer **all** questions.
(2) Each question carries **three** marks.
(3) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.

1. What is MP3 format?
2. List the various controls required in stereo amplifier.
3. List the differences between CD and DVD.
4. What is flicker effect? How to overcome it?
5. Sketch the composite video signal and label each part.
6. List the primary and complementary colors.
7. What is photoelectric effect?
8. List the NTSC standard of color transmission system.
9. List the mid-band and super-band freq. channels of CA TV.
10. Draw the block diagram of TV remote control receiver.

PART—B

10×5=50

- Instructions :** (1) Answer *any five* questions.
(2) Each question carries **ten** marks.
(3) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

- 11.** Explain the process of magnetic tape recording and reproduction. 10
- 12.** (a) Explain the terms speech and noise. 4
(b) Explain about reflection, refraction, diffraction and absorption. 6
- 13.** (a) State the characteristics of human eye in perceiving a motion picture.
(b) State the need for front porch, back porch and line sync pulses with their timings. 10
- 14.** (a) List the CCIR-B standards. 3
(b) Write frequency allocation of TV channels used in India. 3
(c) Explain frame and field frequencies. 4
- 15.** Draw the block diagram of a color TV transmitter and explain each block. 10
- 16.** (a) Draw the block diagram of black and white TV receiver. 4
(b) Explain the functions of each stage of a black and white TV receiver. 6
- 17.** (a) Draw the block diagram of DTH. 4
(b) Explain briefly about DTH system. 6
- 18.** (a) Explain how the existing TV system can be improved in HDTV system. 7
(b) List the standards of HDTV. 3
