



C09-EC-406

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**BOARD DIPLOMA EXAMINATION, (C-09)
OCT/NOV—2013
DECE—FOURTH SEMESTER EXAMINATION
AUDIO AND VIDEO SYSTEMS**

Time : 3 hours]

[Total Marks : 80

PART—A

Instructions : (1) Answer **all** questions.

(2) Each question carries **three** marks.

(3) Answer should be brief and straight to the point and shall not exceed *five* simple sentences.

1. List the differences between CD and DVD.
2. Briefly explain about reflection, refraction, diffraction and absorption.
3. Distinguish between CD player and MP3 player.
4. State the need for horizontal and vertical scanning.
5. State the frame and field frequencies.
6. State the characteristic of human eye with regard to perception of colours.

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7. List any three differences among NTSC, PAL and SECAM.
8. Write the function of tuner in TV receiver.
9. Write in brief about DTH system.
10. List the various components used in CATV.

PART—B

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. (a) Explain the terms Hi-Fi and Stereo. 4
(b) Explain the use of various controls in stereo amplifier. 6
12. (a) Explain the method of optical recording of sound on film with neat sketch. 5
(b) Explain the method of optical reproduction of sound on CD. 5
13. (a) What is meant by interlaced scanning? 2
(b) List the advantages of interlaced scanning. 3
(c) Draw the scanning pattern in an interlaced scanning and explain. 5
14. Sketch the composite video signal and label the parts. and explain each one. 10
15. (a) Draw the schematic view of a colour picture tube. 4
(b) Explain the constructional features and working of a colour picture tube. 6

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- 16.** (a) Draw neat sketch of image orthicon camera tube and name the parts. 4
(b) Explain its constructional details. 3
(c) Briefly explain its working. 3
- 17.** (a) Explain how the existing TV system can be improved in HDTV system. 7
(b) List the standards of HDTV. 3
- 18.** Draw the block diagram of remote control TV receiver. Explain the functions of each stage. 10
