



C09-EC-406

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**BOARD DIPLOMA EXAMINATION, (C-09)
MARCH/APRIL—2017
DECE—FOURTH SEMESTER EXAMINATION
AUDIO & 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 are the concepts of hi-fi and stereo?
2. State the need of bass and treble controls in stereo amplifier.
3. Explain the working principle of DVD player.
4. What are the disadvantages of positive modulation?
5. What is flicker effect and how to avoid it?
6. Draw a neat sketch of image orthicon camera tube and label its parts.
7. List any three standards of PAL colour transmission system.
8. What is the bandwidth occupied by a colour signal?
9. Draw the block diagram of CATV.
10. Draw the block diagram of DTH.

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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 method of sound recording and reproduction on gramophone disc with the help of block diagrams.
- 12.** Explain the method of optical recording of sound on compact disc with the help of a diagram.
- 13.** (a) Explain the formation of picture.
(b) Explain the need for scanning.
- 14.** (a) List any eight CCIR-B standards.
(b) Write frequency allocation of TV channels in India.
- 15.** (a) Draw degaussing circuit of a colour TV receiver and explain.
(b) What is meant by compatibility?
- 16.** (a) Draw the block diagram of black and white TV receiver.
(b) Explain the functions of each stage. Draw the signals at different stages.
- 17.** Draw the block diagram of TV remote control receiver. Explain the functions of each stage.
- 18.** (a) Explain how the existing TV system can be improved in HDTV system.
(b) List the standards of HDTV.
