



C09-EC-406

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**BOARD DIPLOMA EXAMINATION, (C-09)
OCT/NOV—2015
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. Define frequency response and equalization.
2. Briefly explain about optical pickup system.
3. Write any three advantages of CD.
4. Name the different pulses in a composite video signal.
5. List the CCIR-B standards for—
 - (a) horizontal sync pulse;
 - (b) vertical sync pulse;
 - (c) front porch and back porch.
6. List any three standards of PAL colour transmission system.
7. Write the function of RF amplifier in TV receiver.
8. What is the bandwidth occupied by a colour signal?
9. List the standards of HD TV.
10. Draw the block diagram of TV remote control transmitter.

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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 following methods of optical recording of sound on photographic film :
(a) Variable area method
(b) Variable density method
- 12.** (a) Explain the use of various controls in stereo amplifier.
(b) Explain the concept of noise reduction using DOLBY system.
- 13.** Explain horizontal scanning and vertical scanning with necessary figures.
- 14.** (a) Define the terms 'persistence of vision' and 'aspect ratio'.
(b) State the need for equalizing pulses and serrated vertical blanking pulses.
- 15.** (a) Draw degaussing circuit of a colour TV receiver and explain.
(b) What is meant by compatibility and reverse compatibility?
- 16.** (a) Draw a neat sketch of image orthicon camera tube and name the parts.
(b) Explain its constructional detail.
(c) Briefly explain its working.
- 17.** (a) Draw the block diagram of CA TV.
(b) Explain about CA TV.
- 18.** (a) Draw the block diagram of DTH.
(b) Explain briefly about DTH system.
