



C09-EC-406

**3472**

**BOARD DIPLOMA EXAMINATION, (C-09)  
MARCH/APRIL—2016  
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. List any three differences between CD and DVD.
2. List the disadvantages of magnetic recording over disc recording.
3. State the need of bass and treble controls in stereo amplifier.
4. List the CCIR-B standards for (a) horizontal sync pulse, (b) vertical sync pulse and (c) front porch and back porch.
5. What are the disadvantages of positive modulation?
6. List the primary and complementary colors.
7. Name the three international standard systems of color television.
8. Write the function of RF amplifier in TV receiver.
9. Draw the block diagram of CATV.
10. Draw the block diagram of TV remote control transmitter.

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1

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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 optical recording of sound on compact disc with the help of diagram.
- 12.** (a) Explain the terms 'speech' and 'noise'.  
(b) Explain about reflection, refraction, diffraction and absorption.
- 13.** (a) What is the need for interlaced scanning?  
(b) List the advantages of interlaced scanning.  
(c) Draw the scanning pattern in an interlaced scanning and explain.
- 14.** (a) Explain the formation of picture.  
(b) Explain the need for scanning.
- 15.** (a) Draw a neat sketch of image Orthicon camera tube and name the parts.  
(b) Explain its constructional detail.  
(c) Briefly explain its working.
- 16.** Draw the block diagram of colour TV transmitter and explain the function of each block.
- 17.** (a) Draw the block diagram of DTH.  
(b) Explain briefly about DTH system.
- 18.** (a) Explain how the existing TV system can be improved in HDTV system. 6  
(b) List the standards of HDTV. 4

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