



C09-EC-406

**3472**

**BOARD DIPLOMA EXAMINATION, (C-09)  
MARCH/APRIL—2018  
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 meant by reflection and refraction of sound?
2. Write the differences between CD and DVD.
3. Explain the concept of stereo system.
4. Mention the frequency allocation of TV channels used in India.
5. State the need for synchronization.
6. Define hue and saturation of a colour signal.
7. Write the differences between horizontal and vertical deflecting coils.
8. What is meant by additive and subtractive mixing?
9. List the deficiencies of existing TV system.
10. Draw the block diagram of CATV system.

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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.** (a) Explain disc recording system of audio signal with the help of neat block diagram. 5  
(b) Explain the reproduction of sound on disc with the help of block diagram. 5
- 12.** (a) Explain optical pickup system. 5  
(b) Explain the concept of noise reduction using Dolby 'A' system. 5
- 13.** Explain horizontal and vertical scanning with the help of neat sketch. 10
- 14.** (a) What is meant by flickering? Explain how it can be eliminated. 5  
(b) Explain the need for horizontal blanking pulses. 5
- 15.** Explain the working of silicon diode array camera tube with the help of neat diagram. 10
- 16.** Draw the block diagram of colour TV transmitter and explain the function of each block. 10
- 17.** (a) Explain the necessity of mid-band and super-band channels. 5  
(b) Explain the function of amplifier and converter used in cable TV. 5
- 18.** Explain the working of TV remote control receiver with the help of neat diagram.

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