

## C09-EC-406

### 3472

# BOARD DIPLOMA EXAMINATION, (C-09) OCT/NOV-2017

#### DECE—FOURTH SEMESTER EXAMINATION

#### AUDIO AND VIDEO SYSTEMS

Time: 3 hours [ Total Marks: 80

#### PART—A

 $3 \times 10 = 30$ 

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 stereo?
- 2. Explain the working principle of DVD player.
- **3.** Write any three advantages of CD.
- **4.** Define positive and negative modulations.
- **5.** List the CCIR-B standards for (a) horizontal sync pulse, (b) vertical sync pulse and (c) front porch and back porch.
- **6.** List different types of camera tubes.
- 7. List any three standards of SECAM color transmission system.
- 8. Write the function of detector in TV receiver.
- **9.** Draw the block diagram of DTH.
- 10. List the standards of HD TV.

/3472 1 [ Contd...
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**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 method of optical recording of sound on photographic film.
  - (b) Explain the principle of magnetic recording and reproduction of sound.
- 12. (a) Explain the use of various controls in stereo amplifier.
  - (b) Explain the concept of noise reduction using DOLBY system.
- **13.** (a) Define the terms 'persistence of vision' and 'aspect ratio'.
  - (b) State the need for equalizing pulses and serrated vertical blanking pulses.
- **14.** Explain horizontal scanning and vertical scanning with necessary figures.
- **15.** (a) Draw degaussing circuit of a color TV receiver and explain.
  - (b) What is meant by compatibility?
- **16.** (a) Draw the block diagram of a color camera.
  - (b) Explain the constructional features and working of delta gun picture tube.
- **17.** Draw the block diagram of TV remote control receiver. Explain the function of each stage.
- **18.** (a) Draw the block diagram of CA TV.
  - (b) Explain about CA TV.

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