

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/  
COMMERCIAL PRACTICE, APRIL - 2023**

**TELEVISION ENGINEERING**

[Maximum marks: 100]

(Time: 3 Hours)

**PART – A**

**Maximum marks : 10**

I (Answer *all* the questions in one or two sentences. Each question carries 2 marks)

1. List any 4 characteristics of a loudspeaker.
2. Name the primary colours and secondary colours.
3. State the function of colour burst signal.
4. Name any two data compression technique.
5. List any 4 applications of CATV.

(5 x 2 = 10)

**PART – B**

**Maximum marks : 30**

II (Answer any *five* of the following questions. Each question carries 6 marks)

1. Explain with block diagram PA system.
2. Compare 3 colour TV system.
3. Describe the basic principle of digital TV.
4. Explain the construction and operation of PIL picture tube.
5. Describe OLED display.
6. Explain set top box.
7. Explain any 3 characteristics of a microphone.

(5 x 6= 30)

**PART – C**

**Maximum marks : 60**

(Answer one full question from each unit. Each full question carries 15 marks)

**UNIT –I**

III. (a) Explain the construction and working of a ribbon microphone.

(7)

(b) Explain the working principle of HI-FI stereo system.

(8)

OR

- IV. (a) Explain with block diagram CD recording. (8)  
(b) Explain the working principle of electro dynamic loudspeaker. (7)

**UNIT-II**

- V. (a) Describe the significance of selecting R-Y and B-Y signal for colour transmission. (8)  
(b) Explain the working of CCD camera. (7)

OR

- VI. (a) Explain with block diagram PAL encoder. (9)  
(b) Define luminance, hue and saturation. (6)

**UNIT-III**

- VII.(a) Explain with block diagram digital TV receiver. (10)  
(b) Describe MAC signals. (5)

OR

- VIII. Describe the principle of digital video compression techniques. (15)

**UNIT-IV**

- IX. (a) Explain with block diagram HDTV transmitter. (9)  
(b) Compare different types of display. (6)

OR

- X. Write short note on  
(i) DTH (ii) CATV (iii) CAS (15)

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