



TED (15) - 6046

(REVISION - 2015)

Reg. No.....

Signature .....

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/  
MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2019

TELEVISION ENGINEERING

[Time : 3 hours

(Maximum marks : 100)

PART — A

(Maximum marks : 10)

Marks

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

1. State the working principle of a loud speaker.
2. Define aspect ratio.
3. Define hue in the colour system.
4. Define compression ratio in digital TV.
5. Expand the abbreviation OLED.

(5×2 = 10)

PART — B

(Maximum marks : 30)

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

1. Draw and explain the working of a crystal microphone.
2. Explain Dolby A and Dolby B system.
3. Explain additive and subtractive mixing of colours.
4. What are the merits and demerits of the PAL system.
5. Explain MPEG - 4 technique.
6. What are the features of HDTV ?
7. Explain the operation of LCD.

(5×6 = 30)

## PART — C

(Maximum marks : 60)

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

## UNIT — I

- III (a) With the help of a neat diagram explain the play back process of compact disk. 8  
 (b) Draw and explain the working of a moving coil loud speaker. 7

OR

- IV (a) Draw the block diagram of a PA system and explain. 8  
 (b) What are the requirements of Hi-Fi system ? 7

## UNIT — II

- V (a) With the help of a neat diagram explain the working of a CCD camera. 8  
 (b) Draw and explain composite video signal. 7

OR

- VI (a) What are the reasons for selecting (R-Y) and (B-Y) signals in colour transmission ? 7  
 (b) Draw the block diagram of PAL encoder and explain. 8

## UNIT — III

- VII (a) With the help of a neat diagram explain the working of a Delta gun picture tube. 8  
 (b) Draw the block diagram of Digital TV receiver. 7

OR

- VIII (a) Draw the block diagram of MAC encoder and explain. 8  
 (b) With the help of a neat diagram explain the working of a PIL colour picture tube. 7

## UNIT — IV

- IX (a) Draw the block diagram and explain the working of CATV. 9  
 (b) Explain set-top box used in the TV system. 6

OR

- X (a) Draw the block diagram of DTH receiver and explain. 9  
 (b) What are the advantages of LED display ? 6