12190

11122

3 Hours/100 Marks

Seat No. | | | | | | | | |

Instructions : *(1)* ***All*** *questions are* ***compulsory****.*

(2) Illustrate your answers with ***neat*** *sketches* ***wherever*** *necessary.*

(3) Figures to the ***right*** *indicate* ***full*** *marks.*

(4) Assume suitable data, if ***necessary****.*

(5) Mobile Phone, Pager and any other electronic communication devices are ***not permissible*** *in Examination Hall.*

MARKS

1. A) Attempt **any three** : **12**

   a) What is Hi-Fi system ? List the characteristics of Hi-Fi amplifier.

   b) Give the advantages of florescent display system used in CD player.

   c) Define vertical resolution and horizontal resolution.

   d) How U and V signal are separate ?

   B) Attempt **any one** : **6**

   a) Explain operation of PAL-D decoder with its block diagram.

   b) Explain with block diagram, working of monochrome TV receiver.

2. Attempt **any four** : **16**

   a) Explain different controls available on Hi-Fi Amplifier.

   b) What is negative modulation ? State merits of negative modulation.

   c) Give the TV channel allocation for band I and band III.

   d) Give the CCIRB standard for colour TV. (any Eight)

   e) Draw and explain the block diagram of DTH system.

P.T.O.

MARKS

3. Attempt **any four** : **16**

   a) What are sync pulses and blanking pulses ? Describe use of these pulses in TV.

   b) Draw the block diagram of dB meter.

   c) Draw and explain the diagram of PIL colour picture tube.

   d) Draw block diagram of CCTV and explain it.

   e) State the principle of pick-up assembly in CD player with diagram.

4. A) Attempt **any two** : **12**

      a) Draw the block diagram of MATV and explain function of each block.

      b) Explain principle and working of detection used in CD player.

      c) Draw circuit diagram of three way cross over network and explain its operation in brief.

   B) Attempt **any one** : **6**

      a) How high voltage is generated by EHT circuit in colour TV receiver ?

      b) Describe construction and working of Plumbicon camera tube.

5. Attempt **any four** : **16**

   a) Differentiate between positive and negative modulation.

   b) Draw and explain the block diagram of LNBC.

   c) Give the comparison between NTSC, PAL and SCAM systems.

   d) Draw block diagram of colour TV transmitter.

   e) What are sync pulses and blanking pulses ? Describe uses of these pulses in TV.

6. Attempt **any four** : **16**

   a) Compare stereo amplifier with mono amplifier.

   b) Explain the term (1) Hue (2) Saturation.

   c) Justify the choice of 625 lines for TV transmission. Why is the total number of lines kept odd in all TV system ?

   d) Draw block diagram of PAL-D decoder and explain it.

   e) Give the different components used in CD player and explain any one of it.
