

17537

11920

3 Hours / 100 Marks

Seat No.

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- Instructions :**
- (1) All Questions are *compulsory*.
 - (2) Answer each next main Question on a new page.
 - (3) Illustrate your answers with neat sketches wherever necessary.
 - (4) Figures to the right indicate full marks.
 - (5) Assume suitable data, if necessary.
 - (6) Use of Non-programmable Electronic Pocket Calculator is permissible.
 - (7) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. (A) Attempt any **THREE** of the following : **12**
- (a) Differentiate between stereo amp^f and mono amp^f. (4 points)
 - (b) Draw block dia of dB meter. State function of each block.
 - (c) Define following terms with respect to TV system.
 - (1) Compatibility
 - (2) Viewing distance
 - (3) Aspect ratio
 - (4) Hue
 - (d) Describe the function of Remote control transmitter and receiver unit used in CD player.

- (B) Attempt any ONE of the following :** **6**
- (a) Draw block dia of colour TV Receiver.
 - (b) Draw block dia of PAL-D decoder.
- 2. Attempt any FOUR of the following :** **16**
- (a) Draw neat sketch of yagi.uda antenna. Write function of each component.
 - (b) List the frequencies of TV channel allocation for band I & 6 and III.
 - (c) Explain separation U & V signals in colour TV with neat diagram.
 - (d) List different drive motors used in CD player. Write function of any one motor.
 - (e) State working principle of LCD TV with neat dia.
 - (f) Draw two way cross-overs n/w & its response curve.
- 3. Attempt any FOUR of the following :** **16**
- (a) Draw block dia of DTH system. Write function of each block.
 - (b) Describe NHK MUSF system for HDTV.
 - (c) List controls available on Hi-Fi amp^r. Explain any two.
 - (d) Draw and explain CD pick-up assembly in CD player.
 - (e) List any eight CCIR-B standards for colour TV.

4. (A) Attempt any THREE of the following : 12

- (a) Compare additive colour mixing and subtractive colour mixing. (any 4 points)
- (b) List merits and demerits of negative amplitude modulation in TV.
- (c) Draw block dia of CD player.
- (d) Compare CATV & CCTV. (4 points)

(B) Attempt any ONE of the following : 6

- (a) State the need of ENT in colour TV & explain it's generation with neat circuit diagram.
- (b) Draw labelled composite video signal for one line.

5. Attempt any TWO of the following : 16

- (a) Draw block dia of colour TV transmitter.
- (b) Draw layout dia of MATV. Explain it in detail.
- (c) List different picture tubes used in colour TV. Explain any one in detail.

6. Attempt any FOUR of the following : 16

- (a) State need of VSB in TV transmission. Draw its frequency response.
- (b) Draw construction of Vidicon Camera tube. State its working principle.

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- (c) Draw block dia of LNBC and describe its working.
 - (d) Draw block dia of Hi-Fi amp^f. Write function of each block.
 - (e) Explain the details of Horizontal sync., Pulse used in TV system.
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