



17547

21718

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 :	12
a) Draw construction of SAW filter and explain it.	4
b) Why micro controller is used in TV receiver ?	4
c) Draw functional block diagram of sound IC 1190 and describe its working.	4
d) Explain CRT display methods.	4
B) Attempt any one :	6
a) Draw the block diagram of PAL-D decoder and write the function of each block.	6
b) Explain working principle of LCD TV and LED TV write its advantages and disadvantages (any two point).	6
2. Attempt any four :	16
a) Explain purpose of remote control system in TV. Write its advantages and disadvantages (any two).	4
b) Draw block diagram of colour TV receiver and explain function of each block.	4
c) Explain circuit diagram of luminance signal processing.	4
d) Draw the schematic diagram of IC 7609 and state its function.	4
e) Describe EHT generation diode split technique with neat diagram.	4
f) Explain separation of horizontal and vertical sync pulses.	4

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- 3. Attempt any four :** **16**
- a) List any eight major controls available in plasma TV. State function of any two controls. **4**
 - b) Draw block diagram of forward and reverse type SMPS and their merits and demerits (any two). **4**
 - c) Draw and describe hyper band tuner with Vericap tuning. **4**
 - d) What is 3D TV technology ? Why is it necessary to use special glasses for watching 3D programmes ? **4**
 - e) Explain how separation of U and V signals are achieved in Colour TV ? **4**
- 4. A) Attempt any three :** **12**
- a) Describe with neat diagram the working principle of Trinitron picture tube. **4**
 - b) State need of AGC and AFT in TV system. **4**
 - c) State need of reference oscillator and draw its circuit diagram. **4**
 - d) Draw the block diagram of remote transmitter and receiver and its function. **4**
- B) Attempt any one :** **6**
- a) Draw and explain the circuit diagram of RGB drive amplifier. **6**
 - b) Illustrate with the suitable circuit diagram, how the IDENT and KILLER outputs are obtained from burst phase discriminator. **6**
- 5. Attempt any two :** **16**
- a) Draw and explain a neat diagram of transistor line output stage and EHT generation. **8**
 - b) Draw block diagram of Sweep section and explain function of each block. **8**
 - c) Draw VIF stage using ICCA 7611/CA 7607 in Colour TV receiver and state function of any two blocks. **8**
- 6. Attempt any four :** **16**
- a) Illustrate with diagram working of frequency synthesizer tuning. **4**
 - b) On which principle ACC amplifier works. Describe operation of ACC amplifier. **4**
 - c) Draw block diagram of a PAL-D colour receiver. **4**
 - d) Enumerate for distinguishing features of LCD colour receiver with plasma receiver. **4**
 - e) State advantages and disadvantages of SAW filter (any four points). **4**
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