

17547

21819

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) Use of Non-programmable Electronic Pocket Calculator is permissible.
 - (6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

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| 1. (A) Attempt any THREE : | 12 |
| (a) Draw block diagram of Y channel and explain brightness control. | |
| (b) Draw neat circuit diagram of N-sync pulse separator. How is it amplified ? | |
| (c) Draw schematic diagram of IC 7607 and state its application. | |
| (d) State and explain purpose of remote control system in T.V. | |
| (B) Attempt any ONE : | 6 |
| (a) Draw neat circuit diagram of ACC amplifier. State function of ident circuit | |
| (b) Draw neat diagram of Trinitron picture tube. State four characteristics of it. | |

- 2. Attempt any FOUR :** **16**
- (a) Draw neat circuit diagram of EHT generation using diode split technique.
 - (b) State requirements of chroma delay line.
 - (c) State merits and demerits of SMPS.
 - (d) Draw block diagram of remote transmitter.
 - (e) Describe formation of picture pixels in plasma TV.
 - (f) State role of microcontroller in TV receiver.
- 3. Attempt any FOUR :** **16**
- (a) Draw neat block diagram of push-pull SMPS.
 - (b) Draw the block diagram of remote control transmitter & receiver.
 - (c) State need of AFT. State its requirements.
 - (d) Draw colour killer circuit & explain its function in colour TV.
 - (e) Explain formation of pixel in LCD.
- 4. (A) Attempt any THREE :** **12**
- (a) How LCD receivers differs from plasma receiver.
 - (b) Draw block diagram and response curve of VIF stage of CTV.
 - (c) Describe how stereoscopic effect can be obtained with special glass.
 - (d) Draw schematic diagram of IC 7609 and state its function.
- (B) Attempt any ONE :** **6**
- (a) Draw constructional sketch of SAW filter and explain its function, state two merits.
 - (b) Draw neat circuit of reference oscillator and explain its working.

5. Attempt any TWO :**16**

- (a) Draw block diagram of colour TV receiver and state function of each block.
- (b) Draw block diagram of sweep section and state function of each block.
- (c) Draw PAL decoder and explain function of each block.

6. Attempt any FOUR :**16**

- (a) Explain with neat diagram working of varicap tuning.
 - (b) Describe working of LED TV.
 - (c) Describe how sound IF is generated.
 - (d) Explain working Trinitron picture tube.
 - (e) Draw adder subtractor circuits to generate U & V signal. Describe its operation.
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