

22425

12223

3 Hours / 70 Marks

Seat No.

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- Instructions* – (1) All Questions are *Compulsory*.
- (2) Illustrate your answer with neat sketches wherever necessary.
- (3) Figures to the right indicate full marks.
- (4) Assume suitable data, if necessary.
- (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.

Marks

- 1. Attempt any FIVE of the following: **10****
- a) List the different components used in CD-player.
- b) Draw the block diagram of PA system (Public address).
- c) List different types of microphones.
- d) Difference between LED and LCD (any two points).
- e) List any two wiring and safety instruction of microoven.
- f) List the types of loudspeakers.
- g) State the electric specification of washing machine.

P.T.O.

- 2. Attempt any THREE of the following:** **12**
- a) Compare mono amplifier system with stereo amplifier system.
 - b) Draw the block diagram of Hi-fi audio amplifier. State four characteristics of Hi-fi amplifier.
 - c) State Grassman's law. Draw the sketch of additive mixing.
 - d) State any eight CCIR-B standard of colour signal transmitter and receiver.
- 3. Attempt any THREE of the following:** **12**
- a) Explain working of digital cam coder.
 - b) Draw block diagram of washing machine and state types of washing machine.
 - c) Draw the block diagram of PAL-D-decoder.
 - d) Define the following w.r.t. to Television :-
 - i) Contrast
 - ii) Luminance
 - iii) Hue
 - iv) Saturation
- 4. Attempt any THREE of the following:** **12**
- a) Describe vertical resolution and horizontal resolution in brief.
 - b) Draw the block diagram of monochrome TV receiver.
 - c) Explain working of microwave oven with neat block diagram.
 - d) Compare woofer, midrange and tweeter. (any four points.)
 - e) Describe the working of pickup unit of CD player with neat sketch.

5. Attempt any TWO of the following:**12**

- a) State with suitable diagram the function of each block of OLED TV.
- b) Explain the picture processing with CCD sensor for DIGICAM.
- c) Draw the composite video signal label each section and define pedestal height and colour burst.

6. Attempt any TWO of the following:**12**

- a) Draw block diagram of colour TV transmitter and label it.
 - b) Draw the block diagram of photocopier and explain its principle of working.
 - c) Draw and explain block diagram of CD-player. State the advantages of CD.
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