

22425

11920

3 Hours / 70 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.

Marks

1. Attempt any FIVE of the following :

10

- (a) Define :
 - (i) Fidelity
 - (ii) Selectivity
- (b) Explain impedance matching of PA system.
- (c) Draw block diagram of Hi Fi amplifier.
- (d) Differentiate between positive modulation and negative modulation
- (e) List the advantages of OLED.
- (f) List any two wiring and safety instructions for use of microwave oven.
- (g) What is the use of pick up device in Digital camera ?

- 2. Attempt any THREE of the following : 12**
- (a) Draw the block diagram and explain the working of photocopier.
 - (b) Give the troubleshooting procedure of colour TV receiver system.
 - (c) Describe with the help of diagram the working of crystal type microphone.
 - (d) Explain the working of CD player with block diagram.
- 3. Attempt any THREE of the following : 12**
- (a) Sketch the block diagram of MP3 player.
 - (b) Define following with respect to television :
 - (i) Aspect Ratio
 - (ii) Vertical & Horizontal Resolution
 - (iii) Interlace scanning
 - (iv) Image continuity
 - (c) Explain NHK MUSE encoding system.
 - (d) Explain the block diagram of OLED.
- 4. Attempt any THREE of the following : 12**
- (a) “Digital camcorders are best for video recording than digital camera”. Justify.
 - (b) Differentiate between LCD and LED T.V.
 - (c) Explain the troubleshooting procedure for colour T.V. receiver system.
 - (d) Give CCIR-B standards for colour signal transmission and reception.
 - (e) Explain the troubleshooting procedure of colour T.V. transmitter.

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

- (a) Draw and explain the block diagram of colour T.V. transmitter.
- (b)
 - (i) Explain the working of MP3 player.
 - (ii) Give troubleshooting procedure for audio systems.
- (c)
 - (i) Explain the working principle of Electrostatic and permanent magnet speaker.
 - (ii) Compare Woofer and Tweeter. (Any four points)

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

- (a) Draw and explain the block diagram of washing machine. State advantages of automatic washing machine.
 - (b) Explain the working of Direct to Home Receiver (DTH) with its indoor and outdoor unit.
 - (c) Explain the working of microwave oven and give its four electrical specifications.
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