

# 17668

**15162**

**3 Hours / 100 Marks**

Seat No.

--	--	--	--	--	--	--	--

- Instructions* – (1) All Questions are *Compulsory*.  
(2) Illustrate your answers with neat sketches wherever necessary.  
(3) Figures to the right indicate full marks.  
(4) Assume suitable data, if necessary.  
(5) 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**
- (i) Describe JPEG compression system and state its application.
  - (ii) List the application of CCTV.
  - (iii) List name of different motor used in CD player and state its application.
  - (iv) Compare DVD and BD (any four points)
- b) **Attempt any ONE of the following:** **6**
- (i) Draw block diagram of CCTV system and illustrate its working.
  - (ii) Describe three beam optical pickup assembly with the help of neat diagram.

P.T.O.

- 2. Attempt any TWO of the following:** **16**
- a) Draw block diagram of camcorder and state the function of each block.
  - b) Draw the labelled block diagram of blu-ray disc player and describe the function of each block.
  - c) Draw block diagram HDTV and state the function of each block.
- 3. Attempt any FOUR of the following:** **16**
- a) List the application of CATV.
  - b) Describe the principle of projection TV to get large screen.
  - c) Compare plasma and CRT display technology.
  - d) Describe the specifications of monitor.
  - e) List the application of projection TV.
- 4. a) Attempt any THREE of the following:** **12**
- (i) How is the problem of cross talk interference removed in HDTV.
  - (ii) Illustrate the working of LED module in Jumbo TV screen.
  - (iii) List the different equipment used in production studio and state their function.
  - (iv) Draw block diagram of MAC encoder and state the function of each block.
- b) Attempt any ONE of the following:** **6**
- (i) Draw block diagram of CD encoding process and state the function of each block.
  - (ii) Draw block diagram of DTH receiver and state the function of each block.

**5. Attempt any FOUR of the following:****16**

- a) How data storing capacity is enhanced in DVD?
- b) Draw the block diagram of LCD monitor and state the function of each block.
- c) Draw block diagram of projection TV and state the function of each block.
- d) Describe how conditional access is provided in CATV.
- e) Draw block diagram of two way cable system and state the function of each block.

**6. Attempt any FOUR of the following:****16**

- a) Describe the following file format
    - (i) BMP
    - (ii) PNG
  - b) Draw block diagram of transponder for DTH and explain its working.
  - c) What is the need of servo system in CD player? Illustrate the working of tracking servo system.
  - d) Compare LED and LCD monitor. (any four points)
  - e) State two merits and two demerits of plasma display.
  - f) Draw the basic element of CATV and state the function of directional coupler.
-