

# 17668

**11920**

**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) 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 the commonly use file format:  
(1) BMP  
(2) JPEG
- (ii) State any four applications of cable television.  
(iii) Draw and explain the construction of compack disc.  
(iv) State advantages of DVD and explain enhancement of data storing capacity of DVD.
- b) Attempt any ONE of the following :** **6**
- (i) Draw block diagram head end in CATV and state the function of each block.  
(ii) Draw block diagram of CD encoding and state the function of each block.

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- 2. Attempt any TWO of the following :** **16**
- a) Describe the function of different equipments used in production studio.
  - b) Draw block diagram of blue-ray disc player and state the function of each block.
  - c) Draw block diagram of MAC encoder and describe the function of each block.
- 3. Attempt any FOUR of the following :** **16**
- a) List any four application of closed circuit television.
  - b) Describe the principle of interactive TV.
  - c) Describe display basics of plasma television.
  - d) Draw block diagram of LCD monitor and state the function of each block.
  - e) List any four applications of projection TV.
- 4. a) Attempt any THREE of the following :** **12**
- (i) Describe the features of HDTV system.
  - (ii) Describe the working of LED module in Jumbo TV screen.
  - (iii) Describe the analog format:
    - (1) VHS - C
    - (2) Hi8
  - (iv) Draw neat block diagram of HDTV.
- b) Attempt any ONE of the following :** **6**
- (i) Draw block diagram of tracking servo system and describe its working.
  - (ii) Draw and explain block diagram of signal processing and distribution of cable television.

- 5. Attempt any FOUR of the following :** **16**
- a) Draw and explain the construction of blue-ray disc.
  - b) Describe the multi sync. monitor.
  - c) Describe the principle and working of projection TV to get large screen.
  - d) Draw and explain block diagram of two way cable system.
  - e) Describe how conditional access is provided in CATV.
- 6. Attempt any FOUR of the following :** **16**
- a) Describe the basic principle of video phone.
  - b) Draw block diagram of DTH transponder and explain its working.
  - c) Draw schematic diagram of three beam optical pickup assembly in CD player and describe its working.
  - d) State the specification of monitor.
  - e) State two merits and two demerits of plasma display.
  - f) Draw block diagram of CCTV and explain its working.
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