

Seat No. **MAR\_APR 2025 SUMMER EXAMINATION****11731 Bachelor of Technology (NEP-2.0)****Sub. Name: Video Engineering****Sub. Code: 67816/84862/85042****Day and Date: MAY ,13-05-2025****Total Marks: 70****Time: 10:30 AM To 01:00 PM**

- Instructions:**
- 1. All questions are compulsory**
  - 2. Assume suitable data wherever necessary and mention it boldly**
  - 3. Draw neat labelled diagrams wherever necessary**
  - 4. Figures to the right indicate full marks**
  - 5. Use Sketches/Diagrams wherever necessary**

**Q1) Solve following MCQ.****[14]**

- i.** Absence of one color in a color picture indicates
  - A. shorting of one of the guns in picture
  - B. defect in color video amp
  - C. either (a) or (b)
  - D. none of the above
  
- ii.** Equalising pulsing in T.V. are sent during
  - A. horizontal blanking
  - B. vertical blanking
  - C. horizontal retrace
  - D. flicker
  
- iii.** Interlace Scanning always takes place in direction of
  - A. Left to right, top to bottom
  - B. Left to right, bottom to top
  - C. Right to left, top to bottom
  - D. None of above
  
- iv.** VSB modulation is preferred in TV because
  - A. it avoids phase distortion at low frequencies
  - B. it reduces the bandwidth requirement to half
  - C. it results in better reception
  - D. none of the above
  
- v.** Frequency interleaving occurs if subcarrier frequency is an
  - A. odd multiple of half the line frequency
  - B. odd multiple of line frequency
  - C. even multiple of line frequency
  - D. even multiple of half the line frequency

- vi. DTH services are provided by  
A. Transport companies  
B. Banks  
C. Cellular companies  
D. None of the above
- vii. LNBC stands for  
A. Low noise block down converter plus feedhorn  
B. Low Noise block frequency  
C. Low noise back feedhorn  
D. low noise back frequency

**Q2)** Solve Any two Questions below [14]

- a. Draw and Explain Composite Video Signal. [7]
- b. Explain interlaced scanning. [7]
- c. Describe the construction and working of PIL picture tube [7]

**Q3)** Solve Any two Questions below [14]

- a. Define 1.Hue. 2. Saturation 3. Luminance [7]
- b. Compare NTSC, PAL and SECAM system [7]
- c. Define 1.aspect ratio.2.Horizontal resolution 3. Vertical resolution [7]

**Q4)** Solve Any two Questions below [14]

- a. Explain MAC encoding format in detailed. [7]
- b. Describe the construction & working of LED TV. [7]
- c. Explain with suitable block diagram explain DTH receiver. [7]

**Q5)** Solve Any two Questions below [14]

- a. What are the digital TV video parameters. [7]
- b. How does 3D TV works, explain in detail. [7]
- c. What are the components of CCTV details with necessary diagrams. [7]

## **End Of Question Paper**

**Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -**

This Question Paper may be distributed for following Subjects as common code.

सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

- 1] (101) Bachelor of Engineering (67816) VIDEO ENGINEERING Part 4 SEM 8
- 2] (101) Bachelor of Engineering (85042) Video Engineering Part 4 SEM 8
- 3] (1154) B.Tech. CBCS (84862) Video Engineering Part 4 SEM 8

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