

Seat No.

OCT-NOV 2025 WINTER EXAMINATION**1154 B.Tech. CBCS****Sub. Name: Video Engineering****Sub. Code: 67816/84862/85042****Day and Date: Saturday ,06-12-2025****Total Marks: 70****Time: 10:30 AM To 01:00 PM**

- Instructions:**
1. All questions are compulsory
 2. Draw neat labelled diagrams wherever necessary
 3. Figures to the right indicate full marks

Q1) Answer Following Questions**[14]**

- 1) The standard aspect ratio of a television raster is
 - A) 2:1
 - B) 4:3
 - C) 3:2
 - D) 3:4
- 2) The IF value for the color in receivers, for any station, is
 - A) 0.5 MHz
 - B) 1.5 MHz
 - C) 3.58 MHz
 - D) 4.5 MHz
- 3) In a CRT, focussing of electron beam is achieved by varying
 - A) secondary accelerating voltage
 - B) voltage of first accelerating anode
 - C) heater voltage
 - D) grid bias
- 4) Sync pulses transmitted during vertical blanking period include
 - A) equalizing pulses
 - B) serrated vertical sync pulses
 - C) horizontal sync pulses
 - D) all of the above
- 5) Absence of one colour in a colour picture indicates
 - A) shorting of one of the guns in picture
 - B) defect in colour video amp
 - C) either (a) or (b)
 - D) none of the above
- 6) What is bit rate for high- definition TV(HDTV)
 - A) 4Gbps
 - B) 2 Gbps
 - C) 1.5Gbps
 - D) 1.8Gbps
- 7) The process of converting the analog sample into discrete form is called
 - A) Quantization
 - B) Multiplexing
 - C) Modulation
 - D) Sampling

Q2) Attempt any Two of the following**[14]**

- A. Describe VSB transmission. State its any four advantages

- B. Compare NTSC, PAL and SECAM system
- C. Describe the construction and working of PIL picture tube.

Q3) Attempt any Two of the following**[14]**

- A. Compare additive and subtractive colour mixing
- B. Draw and explain complete block diagram of PAL decoder
- C. Draw and explain complete block diagram of NTSC coder

Q4) Attempt any Two of the following**[14]**

- A. What are the digital TV video parameters
- B. How satellite TV operates
- C. Draw and describe DTH system

Q5) Attempt any Two of the following**[14]**

- A. Compare CATV and CCTV
- B. Explain LCD TV operation
- C. Explain IR remote with suitable diagrams

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