

EC704 - Modern Tv Engineering

P. Pages : 2

Time : Three Hours



GUG/W/18/1795

Max. Marks : 80

- Notes :
1. All questions carry equal marks.
 2. Due credit will be given to neatness and adequate dimensions.
 3. Assume suitable data wherever necessary.
 4. Illustrate your answers wherever necessary with the help of neat sketches.

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|-----------|----|--|------------------------|
| 1. | a) | Explain in detail the component of composite video signal with neat diagram. | 8 |
| | b) | Describe the following: | 8 |
| | i) | Colour fundamentals | ii) Colour Perception. |

OR

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| 2. | a) | What is chromaticity diagram? Explain significance of chromaticity diagram. | 8 |
| | b) | Explain three colour theory with additive mixing and subtractive mixing with example. | 8 |
| 3. | a) | Draw the block diagram of PAL encoder and decoder. Explain the operation of each block. | 8 |
| | b) | What is the function of remote control in Tv receiver. Explain various scheme of remote control signals to the Tv receiver. | 8 |

OR

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| 4. | <p>a) Explain the process of "cancellation of phase error in transmission path" by phase alternation line (PAL) system.</p> <p>b) Draw block diagram of NTSC colour Tv transmitter and describe each block.</p> | <p>8</p> <p>8</p> |
| 5. | <p>a) Explain the format of MAC signal for transmitting colour Tv signal. What are the advantage of MAC system.</p> <p>b) Write short note on:</p> <div style="display: flex; justify-content: space-between; margin-left: 20px;"> i) MPEG-1 ii) MPEG-2 </div> | <p>8</p> <p>8</p> |

OR

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| 6. | a) | Draw block diagram of MAC encoder. Explain function of each block. | 8 |
| | b) | What is Digital Tv? What are the principles and parameters of Digital Tv. | 8 |
| 7. | a) | Explain in detail Indian National Satellite System. | 8 |
| | b) | Explain with the help of neat block diagram cable Tv distribution system. | 8 |

OR

8. a) Explain Cable Tv system and cable signal sources. 8
- b) Explain in detail cable signal convertor. 8
9. a) Describe in detail the LED Tv technology Mention advantages of LED Tv. 8
- b) Write short note on: 8
- i) DTH Tv ii) Conditional Access System (CAS)

OR

10. a) Explain High Definition Television (HDTV) System and give HDTV standards in detail. 8
- b) Write short note on : 8
- i) CCTV
- ii) CATV
- iii) Set top Box
