

Q.P. Code : 587101**(3 Hours)****[Total Marks : 100**

- N.B. :**
- (1) Question No.1 is **compulsory**.
 - (2) Solve any **four** from remaining **six** questions.
 - (3) Figures to the right indicate full marks

1. (a) What is the importance of colour burst in the back porch of CVS? **5**
 - (b) Explain chromaticity diagram with a neat sketch. **5**
 - (c) Discuss in brief about RTCP. **5**
 - (d) Justify the choice of modulation used for TV transmission. **5**
 2. (a) Explain the operation of sync separator with a neat diagram. **10**
 - (b) Explain the working of cable television with the help of a neat diagram. **10**
 3. (a) What are the essential requirements to be satisfied to make a colour TV fully compatible with monochrome system? **10**
 - (b) Describe the working of digital TV system. **10**
 4. (a) Draw and explain vidicon camera tube. What do you understand by dark current in vidicon? **10**
 - (b) Draw composite video signals for two lines and explain the various components in details. **10**
 5. (a) Explain the difference between PAL and NTSC colour TV standards. **10**
 - (b) Discuss in brief about television test charts used in troubleshooting. **10**
 6. (a) Explain frequency interleaving process in detail. **10**
 - (b) Justify the role of interlaced scanning in determining video bandwidth. **10**
 7. (a) What is the basic principle of TV camera tubes. Write a short note on solid-state image scanners. **10**
 - (b) Explain the working of horizontal deflection system and the function of EHT. **10**
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