

Total No. of Questions : 10]

SEAT No. :

**P4941**

[Total No. of Pages :2

**[4959]-1096**

**B.E. (Electronics & Telecommunication)  
AUDIO VIDEO ENGINEERING  
(2012 Pattern ) (Semester - II) (Elective - III (c))**

*Time : 2½ Hours]*

*[Maximum Marks : 70*

*Instructions to the candidates:*

- 1) *Answer questions : Q.1. or Q.2, Q.3 or Q.4 , Q.5. or Q.6, Q.7 or Q.8, Q.9 or Q.10.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right side indicate full marks.*
- 4) *Use of Calculator is allowed.*
- 5) *Assume suitable data if necessary.*

**Q1)** a) Draw and explain the composite video signal used in colour TV transmission. **[5]**

- b) Explain the terms: **[5]**
- i) Horizontal and Vertical Resolution,
  - ii) Kell Factor,
  - iii) Interlaced Scanning

OR

**Q2)** a) Explain PAL Encoder with necessary block diagram. **[5]**

b) Discuss component coding and composite coding in Digital TV. **[5]**

**Q3)** a) Discuss Digital TV recording techniques. **[5]**

b) Explain various SDTV, EDTV and HDTV formats. **[5]**

OR

**Q4)** a) Explain the working principle of CATV. **[5]**

b) Discuss briefly, the developments made so far to evolve HDTV and the standards. **[5]**

**Q5)** a) Discuss in brief IPTV and Internet TV. **[8]**

b) Enlist various video projection technologies. Explain the working principle of DLP projectors with suitable diagram. **[8]**

**P.T.O.**

OR

- Q6)** a) What is the need for Video Intercom System? Briefly, explain the working of the same along with its important features. [8]  
b) Discuss Wi-Fi transmitter and receiver with its applications. [8]

- Q7)** a) Discuss the magnetic, optical and disc recording principles with suitable diagrams. [10]  
b) Explain DVD player with necessary block schematic. [8]

OR

- Q8)** a) Explain the playback process of compact disc with suitable diagram. Discuss the different steps involved in the preparation process of CDs with necessary sketches. [10]  
b) Explain principle of Dolby sound systems for the noise reduction. [8]

- Q9)** a) State the requirements for a good auditorium for pleasant listening. Discuss salient features of acoustical design for an auditorium. [8]  
b) Discuss with block schematic the working of cordless microphone PA system. [8]

OR

- Q10)** a) Define reverberation time? Explain the importance of reverberation. What are the factors on which reverberation time depends? [8]  
b) Explain the working of condenser microphone with a neat diagram. List the applications for it. [8]

