Total No. of Questions : 10]

SEAT No. : [ ]

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B.E. (Electronics & Telecommunication)

AUDIO VIDEO ENGINEERING

(2015 Pattern) (Semester - II) (Elective - III) (404191 E) (Theory)

Time : 2½ Hours] ***[Max. 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 indicate full marks.***
4) ***Use of calculator is allowed.***
5) ***Assume suitable data if necessary.***

Q1) a) Explain the PAL encoder using block diagram. **[5]**

b) Draw a neat sketch of composite video signal indicating the numberical values for different timings of various pulses used in CCIR - B Standard. **[5]**

OR

Q2) a) Explain the terms. **[5]**

i) Horizontal and vertical resolution.

ii) Kell factor.

iii) Interlaced scanning.

b) What is significance of weighted signals in television? Explain these signals with for PAL & NTSC. **[5]**

Q3) a) Explain the various Digital TV signals and parameters. **[5]**

b) What is MAC signal? What are various types of MAC? Draw D2 MAC signal **[5]**

OR

Q4) a) Compare LED, LCD and plasma display devices. **[5]**

b) In brief discuss the MPEG standard for compression of signal. **[5]**

P.T.O.

Q5) a) Draw a neat block diagram of HDTV transmitter and Explain function of each block. **[8]**

b) Write a short note on digital satellite TV. **[8]**

OR

Q6) a) Compare IPTV and Internet TV. **[8]**

b) With suitable block diagram Explain CCTV system in detail. **[8]**

Q7) a) Write a short note on **[10]**

i) Video on demand.

ii) Conditional Access system (CAS).

b) Draw and explain Direct to Home TV (DTH). List the advantages of DTH. **[8]**

OR

Q8) a) Explain the basic principle of optical recording and reproduction with suitable block diagram. **[10]**

b) Explain Wi-Fi TV with block diagram in detail. **[8]**

Q9) a) Explain the principle of DVR. How it is differing than VCR. **[8]**

b) Compare CD, DVD and Blue ray DVD. Draw the block diagram of CD recording and Explain. **[8]**

OR

Q10)a) Define reverberation time? Explain the importance of reverberation. What are the factors on which reverberation time depends? **[8]**

b) Enlist the basic requirements of PA system. Draw block diagram of typical cordless PA system. Explain it in detail. **[8]**