Total No. of Questions : 12]

SEAT No. :

P2741

[Total No. of Pages : 2

[5154]- 126
B.E. (E & TC)
TELEVISION & VIDEO ENGINEERING
(2008 Pattern) (Semester - II) (Elective -III) (404189 C)

Time :3 Hours] *[Max. Marks :100*

Instructions to candidates:

1) ***Answers to the two sections should be written in separate books.***
2) ***Neat diagrams must be drawn wherever necessary.***
3) ***Figures to the right indicate full marks.***
4) ***Assume Suitable data if necessary.***

SECTION - I

Q1) a) Define the Composite Video Signal. Draw the CVS with appropriate timing and amplitude levels. Explain the importance of Synchronization pulses and blanking pulses. **[10]**

b) List all the CCIR-B standards for TV. **[8]**

OR

Q2) a) Why AM is used for picture signal in PAL system? On what basis is the decision of aspect ratio done? **[8]**

b) Discuss the Sync Seperator along with vertical and horizontal deflection circuits with current waveforms. **[10]**

Q3) a) Describe how various patterns are generated in a video pattern generator. Explain typical applications of this instrument for testing and aligning a TV receiver. **[8]**

b) Compare the basic features of NTSC, PAL and SECAM system. **[8]**

OR

Q4) a) With neat and labelled diagram, explain the working of colour decoder sections of color TV receiver. **[8]**

b) Discuss the advantages and disadvantages of the high level and low level modulation techniques. Which method is accepted for TV transmission and why? **[8]**

Q5) a) Discuss MPEG-2 compression standard with a suitable block diagram. **[8]**

b) Sketch the Digital TV receiver block diagram and explain the role of individual block. **[8]**

OR

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Q6) a) With suitable block schematic, explain the working of MAC encoder. **[8]**

b) Discuss the G.compression standard. Explain the working of G. encoder with neat labeled diagram. **[8]**

SECTION - II

Q7) a) Explain the live recording of a football match. Discuss the camera placement and other equipment set-up for its broadcasting. Draw suitable diagram. **[8]**

b) Explain the basic principle of 3D television with neat diagram. Discuss different techniques involved in viewing 3D TV. **[10]**

OR

Q8) a) Draw the block schematic of DTH receiver, and explain the function of each block. Mention the frequency bands involved in transmission and reception. **[8]**

b) Compare Analog TV and HDTV. **[5]**

c) Write a short note on Video on Demand. **[5]**

Q9) a) What are the different types of video projectors? Explain the basic principle of video projection. **[8]**

b) Discuss the IPTV and Internet TV systems in detail. **[8]**

OR

Q10)a) Write a short note on ipod. **[8]**

b) Explain the Wi-Fi transmitter and receiver systems in detail. **[8]**

Q11)a) Compare CD, DVD and Blu ray DVD. What is the basic principle used in all the 3 techniques. **[10]**

b) Draw the block schematic of DVD player and explain its working. **[6]**

OR

Q12)a) Give an overview of different digital recording formats. **[8]**

b) Discuss the different display device technologies like LED, LCD and Plasma. **[8]**