

**B.TECH SEM - V (2007 COURSE) (E & TC ENGG.) : WINTER -
2017**

SUBJECT: AUDIO & VIDEO ENGINEERING

Day: **Thursday**
Date: **18/01/2018**

Time: **02.30 PM TO 05.30 PM**
Max Marks. **80**

W-2017-2492

N.B.

- 1) **Q. No. 1 and Q.No.5** are **COMPULSORY**. Out of the remaining attempt any **TWO** questions from each section.
- 2) Both the sections should be written in **SEPARATE** answer books.
- 3) Figures to the right indicate **FULL** marks.
- 4) Use of non programmable **CALCULATOR** is allowed.
- 5) Assume suitable data, if necessary.

SECTION - I

- Q.1**
- a) Discuss MPEG standards. (05)
 - b) Compare performance characteristics Hi – Fi system. (05)
 - c) Explain luminance signal, hue & saturation. (04)
- Q.2**
- a) Draw the block diagram of CD player. Describe preparation of compact disc. (07)
 - b) Explain baffles and enclosures. Write various methods of optical recording. (06)
- Q.3**
- a) Draw block diagram of PA system. Explain role of mixer in PA system. (07)
 - b) What are factors in which reverberation time depends? Write down sabine's equation. (06)
- Q.4**
- a) What is mean by interlaced scanning & kell factor? Describe Trinitron colour picture tube. (07)
 - b) Describe with a diagram the construction of a colour TV camera and its optical system. (06)

SECTION - II

- Q.5**
- a) Explain vertical & horizontal deflection circuits. (05)
 - b) Write short note on MAC signals. (05)
 - c) Explain the need of HDTV. (04)
- Q.6**
- a) With a help of block diagram explain the working of a PAL encoder and decoder. (07)
 - b) Describe briefly the basic difference between SECAM and other colour system. Draw block diagram of SECAM coder & decoder. (06)
- Q.7**
- a) Draw the block diagram of digital TV receiver, giving the functions of each block. (07)
 - b) Comment on “MPEG – 2 & JPEG – 4 MAC production tools”. (06)
- Q.8**
- a) With a block diagram explain DBS – TV reception with special reference to the INSAT – S band downlink. (07)
 - b) i) What is NHK & MUSE system? (06)
ii) Comment on satellite TV & IPTV system.