

T.Y. Diploma : Sem. V
[EN/EX/EJ/DE/ED/EI]
Audio Video Engineering
Prelim Question Paper



Time: 3 Hrs.]

[Marks : 100

- Instructions :**
- (1) All questions are compulsory.
 - (2) Illustrate your answers with neat sketches wherever necessary.
 - (3) Figures to the right indicate full marks.
 - (4) Assume suitable data if necessary.
 - (5) Preferably, write the answers in sequential order.

1. (a) Attempt any **THREE** of the following : [12]
 - (i) Explain various characteristics of Hi-fi amplifier.
 - (ii) State any four advantages of fluorescent display.
 - (iii) Draw and explain interface scanning in brief.
 - (iv) Explain use of multiplexer in cable TV.
(b) Attempt any **ONE** of the following : [6]
 - (i) Draw the block diagram of color TV transmitter and label it.
 - (ii) Draw the block diagram of CD - player and label it.

2. Attempt any **FOUR** of the following : [16]
 - (a) Draw and describe yagi-udda antenna with neat sketch and it's Radiation pattern.
 - (b) Draw and explain Horizontal synch pulse.
 - (c) Describe NHK, MUSK system for HDTV.
 - (d) Draw the Block Diagram of Stereophony Hi-Fi system and explain its working.
 - (e) State the working principle of LCD TV.
 - (f) Draw and explain three-way cross over network with it's frequency Response.

3. Attempt any **FOUR** of the following : [16]
 - (a) Explain the use of various amplifiers used in cable TV and give it's specification.
 - (b) Draw and explain color killer circuit.
 - (c) Compare woofer, squawker and tweeter with respect to definition, size, weight and frequency range.
 - (d) Draw and explain CD pick-up assembly.
 - (e) Draw and explain Composite Video Signal.

4. (a) Attempt any **THREE** of the following : [12]
 - (i) Compare between additive and subtractive color mixing used in color TV.
 - (ii) Draw and describe the working of plumbicon camera Tube.
 - (iii) Enlist the different types of CD Lenses used in CD player. Explain any one.
 - (iv) With respect to block diagram explain cable TV network.
(b) Attempt any **ONE** of the following : [6]
 - (i) Draw the block diagram PAL-D Decoder and describe the function of each block.
 - (ii) List any eight CCIR-B standard for color TV.

5. Attempt any **TWO** of the following : [16]
 - (a) Draw the block diagram of Color TV RX and explain in brief.
 - (b) What is CCTV? State it's use. Compare CCTV and MATV (any four points).
 - (c) Draw and describe the principle of delta gun tube and precision in line (PIL) picture tube.

6. Attempt any **FOUR** of the following :

[16]

- (a) What do you mean by VSB technique? Why it is used in TV?
- (b) Draw and explain dB meter used in cable TV.
- (c) With suitable diagram describe how separation of U and V signals is achieved in colour TV.
- (d) Compare between mono and stereo amplifier.
- (e) Compare NTSC and PAL TV standard.

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Paper Discussion Schedule for T.Y. Diploma (Sem. V) – All Subjects

Date	Day	Timing	Centres
14 Nov. 2016	Monday	9 a.m. to 11 a.m.	Dadar
14 Nov. 2016	Monday	12 p.m. to 2 p.m.	Thane