

**PARUL UNIVERSITY**  
**FACULTY OF ENGINEERING & TECHNOLOGY**  
**B.Tech. Summer 2018 - 19 Examination**

**Semester: 5**  
**Subject Code: 03107301**  
**Subject Name: Audio Video Systems**

**Date: 20/05/2019**  
**Time: 10.30 am to 1.00 pm**  
**Total Marks: 60**

**Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

**Q.1 Objective Type Questions - (All are compulsory) (Each of one mark) (15)**

1. \_\_\_\_\_ Enables to differentiate between the sounds of same pitch.
2. \_\_\_\_\_ is determined basically by the amplitude of the wave.
3. India uses \_\_\_\_\_ color system.
4. Aspect ratio in HDTV is \_\_\_\_\_.
5. The Microphone which need external d.c. supply is \_\_\_\_\_.
6. Moving coil microphone's directivity is \_\_\_\_\_.
7. What is Diffraction of sound?
8. \_\_\_\_\_ Threshold of pain.
9. NTSC stand for \_\_\_\_\_.
10. Moving coil microphone's directivity is \_\_\_\_\_.
11. What is saturation for color model?
12. Efficiency of class B push pull amplifier is \_\_\_\_\_.
13. LCD stand for \_\_\_\_\_.
14. What is flicker effect for TV?
15. Write one characteristic of High Fidelity (Hi-fi) systems.

**Q.2 Answer the following questions. (Attempt any three) (15)**

- A) Explain Briefly: (i) Woofers and Tweeters.
- B) Describe the construction of a carbon microphone and explain its functioning.
- C) Explain block diagram of color camera.
- D) Draw and explain horizontal sync.

**Q.3 A) What do you understand by scanning? Why is it needed? Explain interlaced scanning. (07)**

- B) Show that a total channel bandwidth of 7 MHz is necessary for successful transmission of both picture and sound signals in the 625 line TV system. (08)**

**OR**

- B) Explain characteristic of Loud Speaker and also describe any one with diagram. (08)**

**Q.4 A) Draw and explain composite video signal with all specification. (07)****OR**

- A) Which modulation system is used for picture and sound? Why? Explain it in detail also give the comparison of positive and negative modulation which one is mostly used? Why? (07)**

- B) Explain various types of distortion in Audio Amplifier and also explain PA system. (08)**