

END SEMESTER/RETEST EXAMINATION, 2020 (New)

Semester : 6th semester

Subject code : Et -601(NEW)

Subject: Consumer Electronics & Maintenance

Full Marks: 70 = (Part A-25 + Part B-45)

Duration: 3 hours

I. Questions on Part-A are compulsory

II. Answer any five questions from Part-B

Q1. Fill in the blanks:

1x10=10

- 1a. A crystal microphone is ----- directional.
- 1 .b. A ----- Microphone needs a battery.
- 1 .c. A microphone converts sound waves into ----- signals.
- 1 .d. Audio tapes are made of ----- coated with fine particles of iron oxide.
- 1 .e. Dolby A system is a ----- grade system.
- 1 . f. A cross over network is a ----- network.
- 1 .g. In CD system wow and ----- are absent.
- 1. h. A CD system gives a signal to noise ratio of ----- dB.
- 1. l. The aspect ratio of a TV system is -----.
- 1. j. In ----- one camera tube may feed many video monitors.

Q.2. Write true or false.

1x10=10

- 2.a. Range of audio frequency is 16 Hz- 20 KHz
- 2.b . The moving coil loudspeaker works on the principle of motor .
- 2.c. Magnetic recording is based on the principle that iron oxide becomes magnetized on being brought in a magnetic field.
- 2.d. HDTV system stands for high design TV system.
- 2.e . Trinitron is a monochrome picture tube.



2.f. Color system used are NTSC, SECAM and PAL.

2.g. The recording of CD is known as RMD.

2.h. A CD is a 5mm thick.

2.i. The band width of each TV channel is 7 MHz.

2.j. In India we use CCIR-B standard.

Q.3. Choose the correct answer:

1x5=5

Q.3.a. The most widely used microphone is

i) Moving coil

ii) Ribbon

iii) Crystal

iv) Condenser

3b. In a Dolby system where is pre – emphasis done?

i) At high frequency only

ii) At low frequency only

iii) Throughout the audible range

iv) Never done

3c. Stereophony gives sense of ----- to the listeners?

i) Loudness

ii) Timber

iii) Pitch

iv) Direction

3d. Color TV receiver uses

i) SAWF

ii) HPF

iii) LPF

iv) BPF

3e. The primary colors are

i) Blue and Green

ii) Blue and Red

iii) Red and Green

iv) Blue, Red and Green

PART B, MARK-45

Q.4.

Q.4.a. What is a microphone?

2

Q.4.b. Discuss the requirements of a good microphone.

5

Q.4.c. Mention few applications of a capacitor microphone.

2



Q.5.	
Q.5.a. what is a loudspeaker.	2
Q.5.b. With the help of a neat sketch, explain the principle of working of a moving coil loudspeaker.	4
Q.5.c. What do you understand by Woofer, Squawker and Tweeter	3
Q.6	
Q.6.a. Explain the basic principle of magnetic recording.	2
Q.6.b. What is a stereo system? How is it differing from monophonic system?	5
Q.6.c .Explain the function of balance control.	2
Q.7.	
Q.7.a. Draw the block diagram of a monochrome T.V. receiver and explain the function of each block.	5
Q.7.b.Explain the working of a PAL decoder system with a suitable block diagram.	4
Q.8.	
Q.8.a. Draw the block diagram of a digital color TV receiver and explain its working in brief.	5
Q.8.b. What is a CCTV? Discuss its applications.	4
Q.9.	
Q.9.a. Explain recording of sound on CD by laser beam.	3
Q.9.b. Draw the complete block diagram of a typical mobile handset and describe the function of each block in brief.	6
Q.10. Draw the block diagram of a VCD and its working in details.	9
Q.11. Write a short note on Plasma TV and HD TV.	9
Q.12. what is a compact disc. Discuss the process of storing audio information on a Compact Disc. Mention few advantages of an audio CD over an audio tape.	9

