

(14 | A-2)

S.Y.B.Sc. (4th semester [CBCS]) Examination 2019

US04CELC02 (Radio and Television System)

Electronics and Communication

Day and Date: Tuesday;16-04-2019

Time:10:00 am TO 1:00 pm

Maximum Marks: 70

Note: Figures to right indicates the full marks.

Q-1 Multiple Choice Questions.

(10)

1. Demodulation is done at the _____ side.
(a) receiver (b) between transmitter and receiver
(c) transmitter (d) none
2. The standard value of intermediate frequency is _____.
(a) 456 KHz (b) 756 KHz
(c) 564 KHz (d) 1156 KHz
3. Most of the amplification in a superhetrodyne receiver occurs at _____ stage.
(a) audio amplifier (b) IF
(c) Rf amplifier (d) detector stage
4. Sensitivity of radio receiver should be _____.
(a) low (b) average
(c) high (d) none
5. An efficiency of Class C amplifier is about _____.
(a) 30 % (b) 40 %
(c) 70 % (d) 95 %
6. Meaning of the word heterodyne is to _____.
(a) amplify the signal (b) separate the signal
(c) mix the signal (d) none
7. The image orthicon camera tube operates on the principle of _____.
(a) photo conduction (b) photo reproduction
(c) photo emission (d) none
8. The most suitable camera for broadcast purpose is _____.
(a) image orthicon (b) plumbicon
(c) standard vidicon (d) iconoscope
9. _____ of the signal means it consists of feeding the detected signal to a loud speaker or head phone to reproduce the sound waves giving the original programmed.
(a) selection (b) Reproduction
(c) detection (d) reception
10. _____ is used for impedance matching.
(a) IF amplifier (b) Balun
(c) Rf amplifier (d) none

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P.T.O

Q-2 Answer in short. (Any Ten) (20)

1. Give the classification of radio transmitter according to the carrier frequency.
2. Mention the basic function of AM receivers.
3. Draw the block diagram of TRF receiver.
4. Write advantages of RF amplifier.
5. Draw the circuit of linear diode detector.
6. Why frequency mixer is required?
7. Mention the characteristics of camera tube.
8. What are the advantages of the Image orthicon camera tube?
9. Briefly explain composite video signal.
10. What is the use of Balun?
11. Draw the block diagram of VHF tuner.
12. Draw the circuit diagram of I.F. Trap.

Q-3 (a) Explain in detail principle of super heterodyne receiver. (05)

(b) Write a short note on: Straight receiver. (05)

OR

Q-3 (a) Explain the constituent stages of amplitude modulation radio transmitters. (05)

(b) Discuss in detail the classification of radio transmitter according to the types of modulation used. (05)

Q-4 Draw circuit diagram of RF amplifier and discuss its function in detail. (10)

OR

Q-4 Explain IF amplifier circuit in detail. (10)

Q-5 Explain principle working of image orthicon camera tube. (10)

OR

Q-5 Discuss method of interlace scanning in detail with diagram. (10)

Q-6 Draw the block diagram of B/W television receiver and explain it in detail. (10)

OR

Q-6 (a) What are the function requirement of RF tuner. (05)

(b) Explain RF tuner circuit in detail. (05)