

(25/A-10)

SEAT No. \_\_\_\_\_

No. of Printed Pages : 02

# SARDARPATEL UNIVERSITY V.V.NAGAR

T.Y B.Sc. Sem-VI EXAMINATION, Instrumentation Vocational

SUB. CODE:-US06CIN V6 Signal conditioning and communication.

DATE:-04/04/2019 *Thursday*

TIME:-10:00 am to 1:00 pm

MARKS-70

US06CINV06

**Q-1 Choose correct answer**

[10]

- 1.. In amplitude modulation process the amplitude of carrier is \_\_\_\_\_.  
(A) Changing (C) Frequency Varying  
(B) Constant (D) None of these
2. The problem of flicker is solved by \_\_\_\_\_ scanning.  
(A) Interlaced (C) Rectangular  
(B) No scanning (D) None of these
3. IF frequency in case of AM Radio Receiver is \_\_\_\_\_.  
(A) 455 KHz (C) 455Hz  
(B) 45Hz (D) None of these
4. Out put of detector stage in Radio receiver is \_\_\_\_\_.  
(A) Audio (C) Radio  
(B) Video (D) None of these
5. In TV Receiver sound is \_\_\_\_\_ modulated  
(A) AM (C) PM  
(B) FM (D) None of these
6. Aspect ratio in TV is given by \_\_\_\_\_.  
(A) 4:3 (C) 4:4  
(B) 3:4 (D) None of these
7. Clamping circuit is used in \_\_\_\_\_.  
(A) Television (C) Radio  
(B) Computer. (D) None of these
8. \_\_\_\_\_ gun is used in shadow-mask picture tube.  
(A) Delta (C) Rectangle  
(B) Square (D) None of these
9. Trinitron colour picture tube uses \_\_\_\_\_ gun's  
(A) Single (C) Triple  
(B) Double (D) None of these
10. Bourdon tube is not used in \_\_\_\_\_ telemetry.  
(A) Voltage (C) Current  
(B) Radiofrequency (D) None of these

**Q-2 Short answer type question. (any ten)**

[20]

1. Explain frequency modulation drawing necessary diagram?
2. What is Aspect Ratio.
3. What is interlaced scanning
4. Explain additive colour mixing drawing diagram
5. Explain subtractive colour mixing drawing diagram
6. Draw the block diagram of general telemetry system.
7. Define Modulation
8. Explain what is telemetry
9. Draw the block diagram of TV Tuner & Explain it briefly
10. List different types of signals present in composite video signal
11. What is superheterodyne principle
12. Draw the block diagram or general telemetry system.

(1)

(P.T.O.)

- Q.3 Give an account of Amplitude modulation. [10]  
OR
- Q.3 Draw the block diagram of superhetrodyne radio receiver and explain function of each block. [10]
- Q.4 Draw the block diagram of black & white TV Receiver and also explain function of each block. [10]  
OR
- Q.4 Draw the block schematic arrangement of colour TV camera and explain its working. [10]
- Q.5 Give an account of image orthicon tube. [10]  
OR
- Q.5 Give an account of Vidicon Tube [10]
- Q.6 List different types of land line telemetry, Explain any two in detail [10]  
OR
- Q.6 Give an account of pulse code modulation telemetry. [10]

— J —

(2)