SARDARPATEL UNIVERSITY V.V.NAGAR

B.Sc.(Vth SEM.)INSTRUMENTATION (V)EXAMINATION
SUBJECT: Signal Conditioning & Communication
SUB. CODE : USO5CINV06

Fryday
DATE:-22/11/2019   TIME:-10:00 am to 1:00 pm   MARKS-70

Q-1   Choose correct answer   [10]

1.   Tristate switch has low, high and _____ output states.

(A) Floating   (C) Zero.

(B) not floating   (D) None of these

2.   Registers are made of _____.

(A) Flip-flop   (C) Resistor

(B) Capacitor   (D) None of these

3.   In _____counter data is rotated.

(A) Ring.   (C) shift right

(B) Shift left.   (D) None of these

4.   Flash type A/D Converter is _____ converter.

(A) Fastest   (C) Slow

(B) Very slow   (D) None of these

5.   Successive approximation type A/D Converter _____ converter.

(A) Fast   (C) Slowest

(B) Very fast   (D) None of these

6.   In V/T type A/D converter _____ is constant.

(A) Frequency   (C) Time

(B) Voltage   (D) None of these

7.   The Bell 103 type MODEM is _____ duplex.

(A) half   (C) full

(B) triple   (D) None of these

8.   The Schmitt trigger has _____ threshold pts

(A) Two   (C) No Point

(B) Three   (D) None of these

9.   Schering Bridge is used for the measurement of unknown _____.

(A) Resistance   (C) Inductance

(B) Capacitance   (D) None of these

10.   Maxwell bridge is used for measuring _____.

(A) Resistance   (C) Inductance

(B) Capacitance   (D) None of these

Q-2   Short answer type question. (any ten)   [20]

1.   Draw neat diagram of FSK.

2.   Explain Asynchronous data format.

3.   Draw the block diagram of digital data transmission using MODEM.

4.   Draw the operation diagram of successive approximation converter.

5.   Draw the figure of 3-bit parallel simultaneous type A/D converter.

6.   Draw the circuit of 3 bit serial shift register

7.   Draw the circuit of weighted resistor type 3 bit D/A converter.

8.   Write a truth - table tri-state switch.

9.   Explain linearity, sensitivity and accuracy.

10.   Draw the circuit diagram for Schering bridge.

11.   Draw the circuit diagram for hay bridge..

12.   List different types of dc bridges.

Q.3   Explain working of R-2R ladder type D/A converter.   [10]

                                    OR

Q.3   Give an account of Tristate switch.   [10]

Q.4   Give an account of Bell 103 Modem.   [10]

                                    OR

Q.4   Give an account of Modems & interfaces.   [10]

Q.5   Explain in detail voltage to frequency type A/D converter.   [10]

                                    OR

Q.5   Explain in detail working of counter type A/D converter.   [10]

Q.6   Give an account of Wien bridge.   [10]

                                    OR

Q.6   Give an account of Wheatstone bridge.   [10]

—X—
(2)