

(27)

SEAT No. _____

No. of Printed Pages | 2

SARDARPATEL UNIVERSITY

T.Y.B.Sc. Sem-V EXAMINATION

SUB. CODE:-US05CINV06 Signal conditioning and communications

DATE:-03/11/2018, Saturday TIME:-10:00 am to 1:00 pm

MARKS-70

Q-1 Choose correct answer [10]

1. Tristate switch has _____ output stages.
(A) one (C) two
(B) three (D) None of these
2. Flash or parallel comparator type A/D converter is _____.
(A) fastest (C) slowest
(B) medium (D) None of these
3. In voltage to frequency type A/D _____ remains constant.
(A) time (C) voltage
(B) frequency (D) None of these
4. In _____ counter data is circulated.
(A) Ring (C) Resistor
(B) Transistor (D) None of these
5. In bidirectional register data be can be shifted in _____ direction.
(A) one (C) both
(B) three (D) None of these
6. Schmitt trigger has U.T.P. and _____.
(A) L.T.P. (C) M.T.P.
(B) Zero (D) None of these
7. Successive approximation converter is _____.
(A) slowest (C) fastest
(B) random (D) None of these
8. MODEM is also called _____.
(A) DTE (C) DCE
(B) DTT (D) None of these
9. AC/DC Bridge consists of _____ arms.
(A) one (C) two
(B) three (D) None of these
10. The reactance of Inductor is given by _____.
(A) $2\pi f l$ (C) $2\pi f c$
(B) $1/2\pi f c$ (D) None of these

[20]

Q-2 Short answer type question (any ten)

1. List D/A specifications.
2. Draw FSK modulation diagram.
3. Draw the operation diagram of successive operation converter.
4. Draw the circuit of voltage to frequency ADC.
5. Draw the circuit showing interconnection of S/H & A/D converter.
6. Draw the circuit of weighted resistor type D/A convertor
7. Draw the logic circuit of 4-bit shift register.
8. Draw the block diagram of data communication system.
9. Draw the figure of asynchronous data format.
10. What is a bridge ? Define it.
11. Draw the neat diagram of Hay bridge.
12. List different types of a.c Bridges.

①

(P.T.O)

- Q.3 Explain Wein-bridge in detail. [10]
OR
Q.3 Give an account of Wheaston bridge. [10]
Q.4 Give an account of Modems and Interfaces. [10]
OR
Q.4 Give an account of Schmitt trigger as a interface and write its advantages. [10]
Q.5 Draw a neat diagram of Dual Slop type A/D Convertor and explain its working [10]
OR
Q.5 Explain in detail Parallel type ADC. [10]
Q.6 Explain Tristate Switch in detail with necessary circuit diagram and truth table. [10]
OR
Q.6 Give an account of 4 Bit Bidirectional Shift Register [10]

— X —
②