

V.P. & R.T.P. SCIENCE COLLEGE
VALLABHVDYANAGER
TYB.Sc. Sem-V Internal Test.



SUB. CODE:-US05CINV06 Signal conditioning and communications
DATE:-8/10/2018 TIME:-10:am to 12: noon MARKS-50

Q-1 Choose correct answer

[8]

1. Tristate switch has _____ output stages.
(A) one (C) two
(B) three (D) None of these
2. In bidirectional register data be can be shifted in _____ direction.
(A) one (C) both
(B) three (D) None of these
3. In voltage to time type A/D _____ remains constant.
(A) time (C) voltage
(B) frequency (D) None of these
4. Schmitt trigger has _____ thresholds points.
(A) 1 (C) 3
(B) 2 (D) None of these
5. Successive approximation converter is _____.
(A) slowest (C) fastest
(B) random (D) None of these
6. Low speed modem use _____ modulation.
(A) FSK (C) AM
(B) AMFM (D) None of these
7. AC/DC Bridge consists of _____ arms.
(A) one (C) two
(B) three (D) None of these
8. The reactance of capacitor is given by _____.
(A) $2\pi f l$ (C) $2\pi f c$
(B) $1/2\pi f c$ (D) None of these

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Q-2 Short answer type question (any five.)

[10]

1. List different types of Bridges.
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 neat diagram of Maxwell bridge.
6. List disadvantages of weighted resistor type D/A converter.
7. Draw the logic circuit of 4-bit shift right register.
8. Draw the figure of asynchronous data format.



- Q.3 Explain Wein-bridge in detail. [8]
- OR
- Q.3 Give an account of Wheaston bridge. [8]
- Q.4 Give an account of Modems and Interfaces. [8]
- OR
- Q.4 Give an account of Schmitt trigger as a interface and write its advantages. [8]
- Q.5 Give an account of Voltage to Time type ADC. [8]
- OR
- Q.5 Explain in detail Parallel type ADC. [8]
- Q.6 Explain Tristate Switch in detail with necessary circuit diagram and truth table. [8]
- OR
- Q.6 Give an account of R-2R ladder type 4-bit D/A converter. [8]