

No of printed pages: 01

Seat No.:



A Charutar Vidya Mandal's Institution
V.P. & R.P.T.P. SCIENCE COLLEGE
(AUTONOMOUS) (Grant-in-Aid)
Affiliated to Sardar Patel University
VALLABH VIDYANAGAR-388120



Bachelor of Computer Application (Semester II) Internal Examination - 2025
US02IDBCA05- DIGITAL ELECTRONICS

Date: 06/03/2025 Day: THURSDAY

Time: 2:45 PM TO 3:45 PM

Total marks :20

Note: Figures to the right indicate marks of the question.

- Q-1** Write the most appropriate answer from the following multiple-choice questions. [06]
- 1 An invert gate is also called a _____ gate.
(a) NAND (b) NOR
(c) EX-OR (d) NOT
 - 2 The NAND gate has two or more input signals. If all inputs are _____, the output is low.
(a) HIGH (b) BOTH A AND C
(c) LOW (d) NONE OF THESE
 - 3 A _____ is a combinational circuit that converts binary information from the "2n" coded inputs to "n" outputs.
(a) HALF ADDER (b) FULL ADDER
(c) DECODER (d) ENCODER
 - 4 In which of the following condition the RS Flip-Flop are unstable?
(a) S = 1, R = 1 (b) S = 0, R = 1
(c) S=1, R=0 (d) S = 0, R = 0
 - 5 A register that is used to store binary information is called _
(a) Data Register (b) Shift Register
(c) Binary Register (d) BOTH A AND C
 - 6 The length of a register is called _____.
(a) Word size (b) Word limit
(c) Register limit (d) Register size
- Q-2** Explain rules of Boolean Algebra with circuit and truth table [07]
OR
- Q-2** Explain 3x8 Encoder with circuit and truth table. [07]
Q-3 Explain RS Flip Flop with diagram [07]
OR
- Q-3** Explain left and right shift register with diagram [07]

