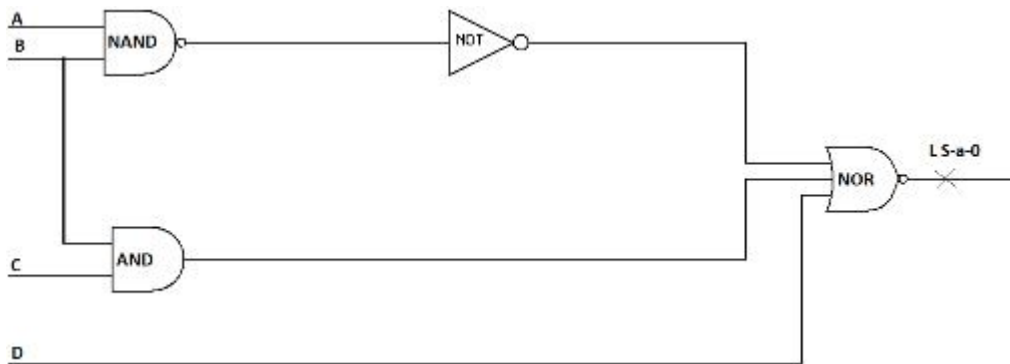


Note: Attempt *two* sections from each question. Section (a) is compulsory.

1. (a) What do you understand by testing? Explain the importance of testing in VLSI system.
(b) Discuss different types of faults in VLSI circuits during fabrication and packaging.
(c) Explain IC production test process and burn-in-board.
2. (a) Describe the importance of stack-at-faults and bringing faults in fault detection process.
(b) Briefly discuss various faults which occur in RAM.
(c) What is simulation? Explain parallel and detective fault simulation.
3. (a) Explain BIST implementation in hardware design.
(b) Discuss I_{DDQ} testing with importance in VLSI design.
(c) Discuss ATPG for a sequential digital circuit taking a suitable example.
4. (a) Explain path sensitization method and its limitation.
(b) Find the test vectors using FAN and PODEM for L-s-a-0.



- (c) Discuss the architecture of RAM-BIST.
5. (a) Describe Boolean difference method to find out test vectors.
(b) Explain PODEM and D-algorithm with suitable example.
(c) List various methods for delay fault testing. Elaborate any one of them giving suitable example.