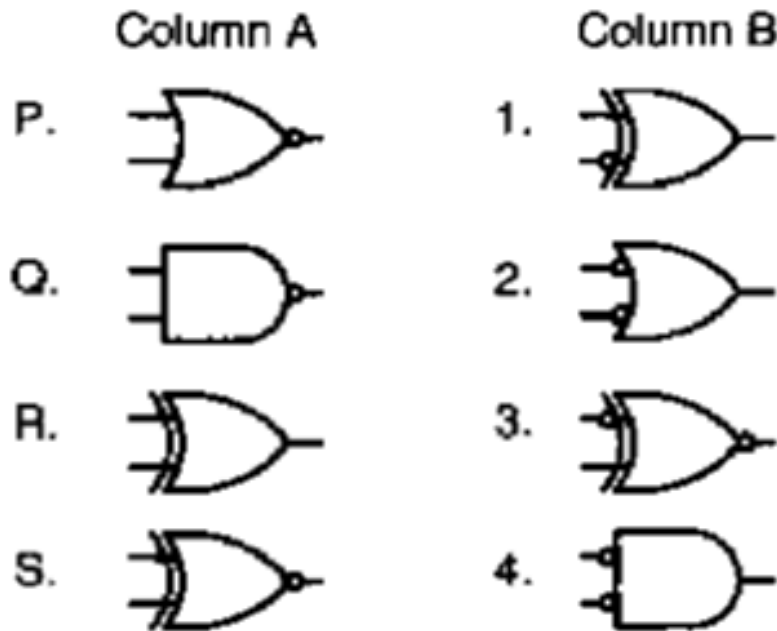


## GATE QUESTION EC 2010 Q11

### Question

**Q.11** Match the logic gates in **Column A** with their equivalents in **Column B**.



**Options:**

- A. P-2, Q-4, R-1, S-3
- B. P-4, Q-2, R-1, S-3
- C. P-2, Q-4, R-3, S-1
- D. P-4, Q-2, R-3, S-1

### Explanation

- **P:** The symbol in P is a **NOR gate**, which is the negation of OR. Its match in Column B is option 2.
- **Q:** The symbol in Q is a **NAND gate**, which is the negation of AND. Its match in Column B is option 4.
- **R:** The symbol in R is a **basic OR gate**. Its equivalent is option 1.
- **S:** The symbol in S is a **basic AND gate**. Its match is option 3.

Therefore, the correct matching is:

P-2,   Q-4,   R-1,   S-3
--------------------------

**Correct Answer:**

(A) P-2, Q-4, R-1, S-3
------------------------