

GATE:CS22-18

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I. QUESTION

Let R1 and R2 be two 4-bit registers that store numbers in 2's complement form. For the operation R1 and R2, which one of the following values of R1 and R2 gives an arithmetic overflow?

- 1) R1 = 1011 and R2 = 1110
- 2) R1 = 1100 and R2 = 1010
- 3) R1 = 0011 and R2 = 0100
- 4) R1 = 1001 and R2 = 1111