

# GATE 2023-EC

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**Question : 14**

The value of the contour integral,  $\oint_C \frac{z+2}{z^2+2z+2} dz$ , where the contour  $C$  is  $\{z : |z + 1 - \frac{3}{2}i| = 1\}$ , taken in the counter clockwise direction, is

- A  $-\pi(1 + j)$
- B  $\pi(1 + j)$
- C  $\pi(1 - j)$
- D  $-\pi(1 - j)$

(GATE ST 2023)

**Solution:**