Positive and negative point charges of equal magnitude are kept at $\left(0,0,\frac{a}{2}\right)$ and $\left(0,0,\frac{-a}{2}\right)$ respectively. The work done by the electric field when another positive point charge is moved from $(-a, 0, 0)$ to $(0, a, 0)$ is [2007]

(a) positive
(b) negative
(c) zero
(d) depends on the path connecting the initial and final positions

(c) Two charges make an electric dipole. A and B points lie on the equatorial plane of the dipole.

$\therefore$ Potential at A, V_A = potential at B, $V_B = 0$

Hence, work done $W = q\,(V_A - V_B) = q \times 0 = 0$