

- 16** A small mass executes s.h.m. about a point O with amplitude  $a$  and period  $T$ . Its displacement from O at time  $T/8$  after passing through O is

**A**  $\frac{a}{8}$

**B**  $\frac{a}{2\sqrt{2}}$

**C**  $\frac{a}{2}$

**D**  $\frac{a}{\sqrt{2}}$