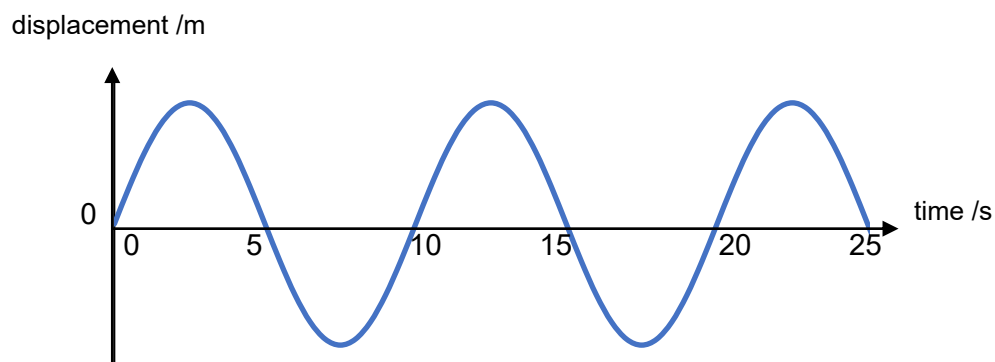


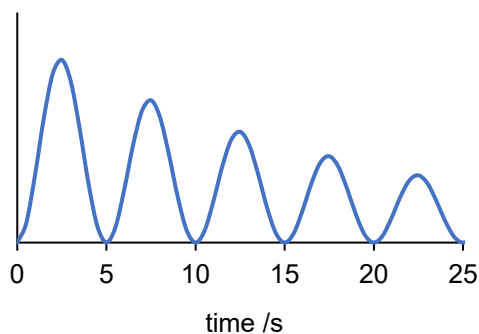
- 16 The diagram below shows the displacement-time graph for a system oscillating freely with negligible damping.



The system is **now** placed in an environment with **significant** damping and set into oscillation. At time $t = 0$ s, the displacement of the object is 0 m. Which one of the following graphs best describes how the potential energy of the system varies with time?

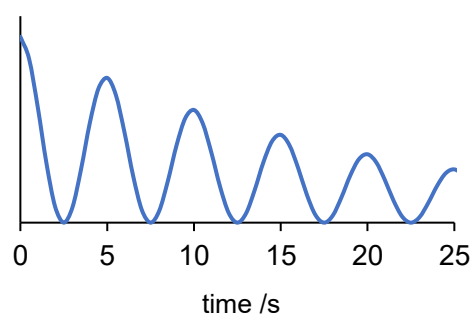
A

Potential energy /J



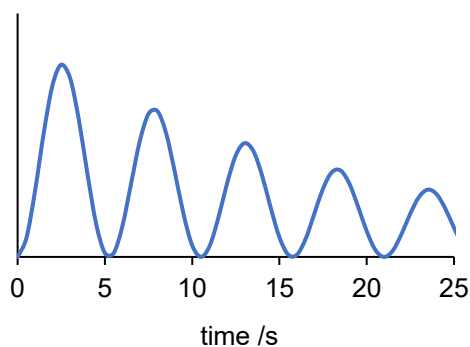
B

Potential energy /J



C

Potential energy /J



D

Potential energy /J

