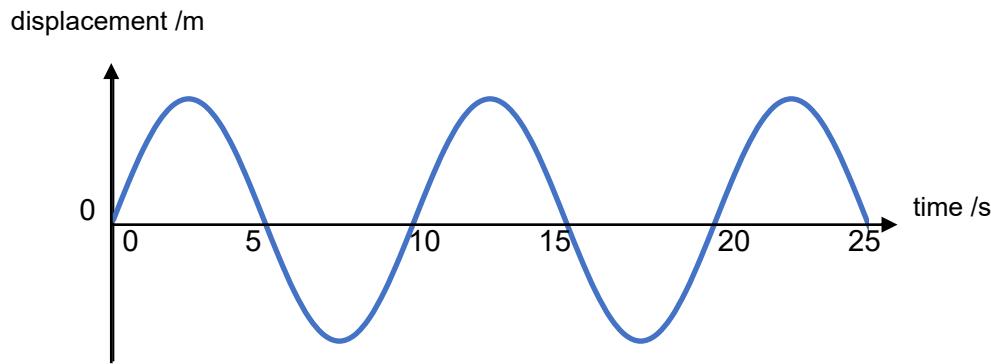
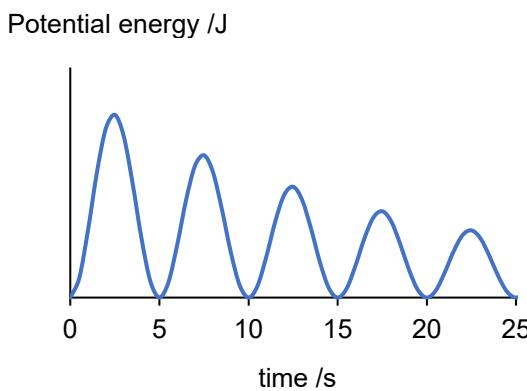


- 16 The diagram below shows the displacement-time graph for a system oscillating freely with negligible damping.

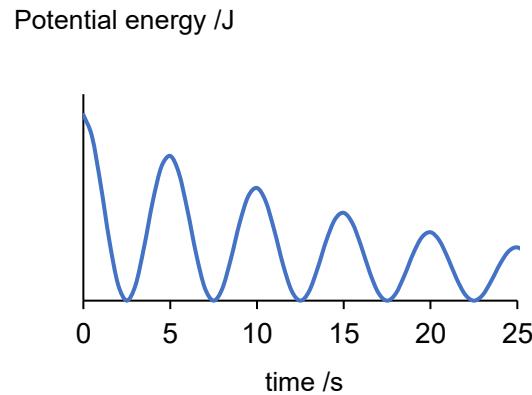


The system is now placed in an environment with **significant** damping and set into oscillation. At time  $t = 0$  s, the displacement of the object is 0 m. Which one of the following graphs best describes how the potential energy of the system varies with time?

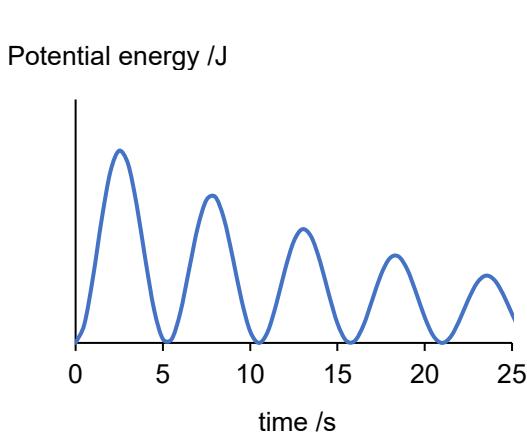
A



B



C



D

