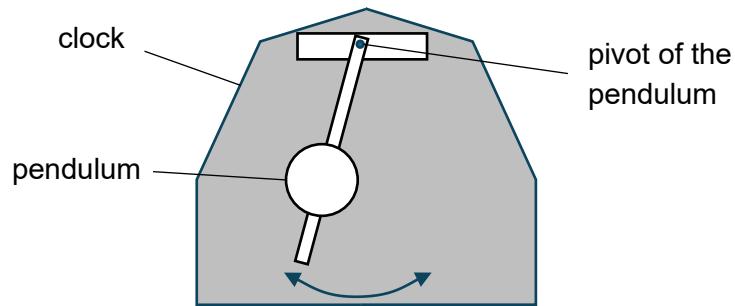
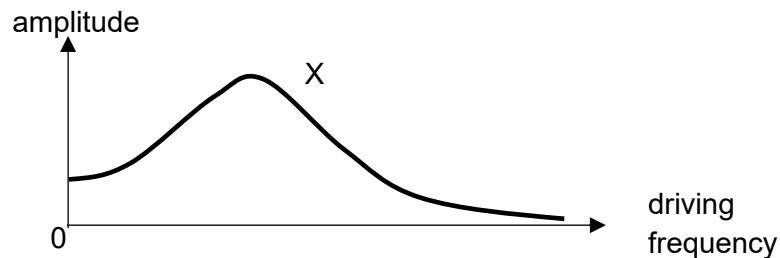


- 14 The amplitude of oscillations of a pendulum in a clock below is observed to decay with time. To maintain the amplitude, an electric motor is attached to the pivot of the pendulum to drive it periodically.



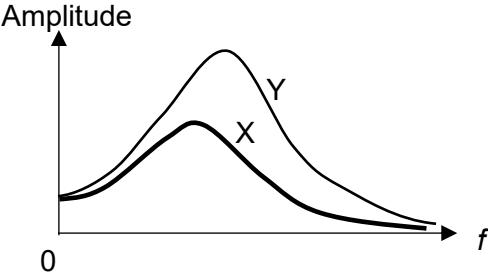
As the frequency  $f$  of the periodic force provided by the motor varies, the amplitude of oscillations vary with  $f$  as shown.



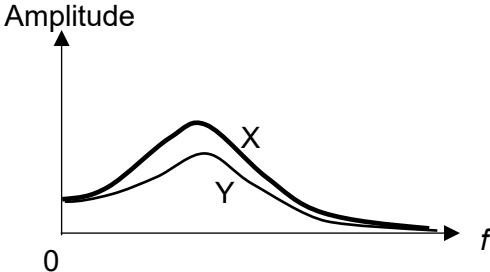
Over the years, the friction in the pivot increased.

Which of the following would be the new graph Y showing the variation of amplitude with  $f$ ?

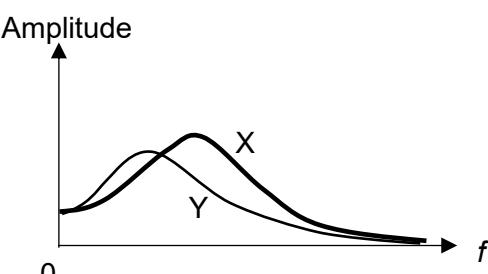
**A**



**B**



**C**



**D**

