

Mathematics Questions by Topics

Motion and Force

Question 19

Source: K14SM2Q19

Question 19

A particle of mass M kg is on a horizontal table and is connected by a light string to a particle of mass 2 kg hanging vertically at the edge of the table. The coefficient of friction between the table and the mass M is equal to $\frac{1}{3}$. Then if

- A.** $M > 6$ both masses move with constant acceleration.
- B.** $0 < M < 6$ both masses move with constant acceleration.
- C.** $0 < M \leq 6$ the system is in limiting equilibrium.
- D.** $M > 6$ both masses move with constant velocity.
- E.** $0 < M < 6$ both masses move with constant velocity.