

- 9** Three identical slotted masses are placed at $2R$, $4R$ and $6R$ respectively from the centre of a horizontal rough disc of radius $10R$.

The disc rotates about its centre O .

Which statement is correct?

- A** All three slotted masses experience the same centripetal force.
- B** The slotted mass at $6R$ is most likely to move out of its circular path.
- C** The slotted mass at $2R$ completes the least number of revolutions per unit time.
- D** The slotted mass at $6R$ has three times the amount of kinetic energy as the slotted mass at $2R$.