

41 _____

- 5

- (a)

[3]

[illegible]

P is now projected on a smooth horizontal surface with speed $v \text{ ms}^{-1}$ directly towards a particle Q of mass 1.25 kg which is stationary. After P and Q collide, the velocity of P is $w \text{ ms}^{-1}$ and the velocity of Q is $2w \text{ ms}^{-1}$. The loss of kinetic energy in the collision is 25 J .

- (b)**

[4]

[illegible]