A particle P of mass $0.4\,\text{kg}$ is attached to a fixed point A by a light inextensible string of length $0.5\,\text{m}$. The point A is $0.3\,\text{m}$ above a smooth horizontal surface. The particle P moves in a horizontal circle on the surface with constant angular speed $5\,\text{rad}\,\text{s}^{-1}$.

(i) Calculate the tension in the string. [3]

(ii) Find the magnitude of the force exerted by the surface on P. [2]