Question Number	Scheme	Marks
1.	$\omega = \dfrac{10\pi}{60}$ (rad s^{-1})	B1
	$F = mg\mu$ (N)	B1
	$F = m \times 0.2\left(\dfrac{\pi}{6}\right)^2 = \dfrac{m\pi^2}{180}$	M1A1ft
	$mg\mu \geq \dfrac{m\pi^2}{180}$	dM1
	$\mu_{\min} = \dfrac{\pi^2}{180g}, \quad (0.0056, \quad 0.00560)$	A1
		[6]

B1	Correct angular speed in radians per second, seen anywhere
B1	Correct inequality or equation for Friction, seen or used anywhere
M1	Attempt the equation of motion along the radius. Must only contain friction and resultant force (give BOD unless clearly not friction). Allow with their ω or just ω.
A1ft	Correct equation. Follow through their ω
dM1	Eliminate F and solve to find μ. Allow with an inequality or equation. Dependent on previous M1.
A1	Correct answer, as shown or 2/3 sf decimal (0.00560). Must not be an inequality now.

Special Case: If $F \geq mg\mu$ or $F < mg\mu$ used, leading to $\mu = \dfrac{\pi^2}{180g}$ award max B1B0 M1A1 M1A0