

Question Number	Answer	Mark
13(a)	<p>The particles are accelerated by an electric field in the gaps (1)</p> <p>The a.c. frequency is constant so the particles spend the same time in the tubes/gaps (1)</p> <p>(This is achieved by) increasing length of drift tubes Or (This is achieved by) increasing length of gaps (1)</p> <p>The (a.c) polarity changes so the (electric) field is in the same direction when the particle is in the gaps Or The (a.c.) polarity changes so it is always accelerating the particles (1)</p>	4
13(b)	<p>The particles experience a force at right angles to their motion/path/velocity. (1)</p> <p>Which causes centripetal acceleration/force Or Which causes circular motion (1)</p>	2
	Total for question 13	6