

Question number	Answer	Notes	Marks
10 (a)	<p>method to show shape; e.g. use compass(es) use of iron filings/powder</p> <p>use of plotting compass to show direction;</p> <p>a further method detail; e.g. mark card/move compass/multiple compasses idea of another line or lines added sprinkle (iron filings) tap card (to distribute iron filings)</p>	all marks may be awarded from a labelled diagram	3
(b) (i)	<p>any four from: MP1. idea that core gains a magnetic field; MP2. idea of a changing magnetic field; MP3. idea that field lines cut by wire; MP4. voltage induced (across coil); MP5. (causing a) current in the wire;</p>	allow higher level ideas in terms of flux and flux linkage	4
(ii)	<p>any one from: MP1. idea that dynamo-wheel friction makes bicycle harder to pedal; MP2. idea that lights would vary in brightness;</p> <p>MP3. lights will be off when bicycle is stationary;</p>	allow current / brightness of lamps depends on how fast bicycle is moving	1

Total for Question 10 = 8 marks