Question number	Answer	Notes	Marks
2 (a)	Place compass in field and observe the needle ; Make marks to record (field) ; ALLOW use of >1 compass / pencil Repeat process / join marks to make >1 line ;	e.g. “Place the compass next to the magnet and look where the needle points.” e.g. “Place the compass next to the magnet and look where the needle points. The line is marked using a pencil and paper method (i.e. dots or arrows)” e.g. “Place the compass next to the magnet and look where the needle points. The line is marked using a pencil and paper method (dots or arrows). This is repeated for another line / in a different place” ALLOW use of iron filings for 1 mark	3
(b)	A correct field line ; Correct direction of field shown i.e. an arrow from N to S ; At least two correct complete lines, but not touching / crossing;	ALLOW incomplete line IGNORE field lines inside the magnet REJECT inconsistent / incorrect arrows	3

Total 6 marks

Question number	Answer	Notes	Marks
7 (a)	momentum = mass x velocity OR 72 x 8 ; Calculation 580 (kg m/s);	Or equivalent rearrangement ACCEPT use of standard abbreviations i.e. p = mv ALLOW 576 (kg m/s)	2
(b)	Substitution 920 ÷ 0.17 ; Calculation 5400 (N) ;	REJECT Alternative incorrect unit for 1 mark ACCEPT 5410 / 5412 / 5411.7…… 5411.8 REJECT 5411	2
(c) (i)	Any **two** from: <u>Road</u> Weather-related e.g. wet / dry / rainy / icy ; Surface-related e.g. gravel / mud / freshly tarmaced / oily ; Gradient e.g. uphill / downhill ; <u>Car</u> Mechanical e.g. quality of tyres / brakes ; Momentum-related e.g. speed / number of passengers / mass ; <u>Driver</u> State of alertness e.g. tired / alcohol / drugs / mobile phone / other distractions ; Reaction time ;	 ALLOW slippery if qualified	2