Question number	Answer	Notes	Marks
16 (a)	Any two of braking force; air resistance / drag; (road or tyre) friction;	ACCEPT Headwind/wind resistance in this case	2
(b) (i)	force = mass x acceleration;	ACCEPT mass = force ÷ acceleration ACCEPT acceleration = force ÷ mass ACCEPT standard symbols, F = m x a	1
(ii)	Substitution in correct equation; Calculation; e.g. 1400 x 5.5 = 7700 (N) or 7.7 k(N)	correct answer = 2 marks	2
(c)	Attempt at area under the graph (e.g. ½ x base x height); ½ x 4 x 22; Correct answer 44 (m); OR distance = (average) speed x time; 11 x 4; correct answer 44 (m)	correct answer = 3 marks first mark implied in correct substitution first mark implied in correct substitution	3
(d) (i)	(graph is a) curve(d line) /gradient changes / slope changes / (graph is) not a straight line / graph levels off;		1
(ii)	Any two of <u>Increase</u> in air resistance / drag / wind resistance; <u>Increase</u> in road resistance / (tyre) friction; <u>Decrease</u> in resultant force; Road becomes <u>steeper</u> / goes uphill;	IGNORE references to terminal velocity IGNORE 'more weight in the car' IGNORE 'driver changed gear' IGNORE 'driver turned corner'	2

Total 11 Marks

PAPER TOTAL: 120 MARKS