

Question number	Answer	Notes	Marks
15 (a) (i)	Terminal (velocity);		1
(ii)	upward force = downward force / forces balanced / no resultant force / resultant force = 0; reference to $F = ma$ / reference to (Newton's) 1 <sup>st</sup> or 2 <sup>nd</sup> Law; no acceleration / acceleration = 0;	IGNORE descriptions of <i>reaching</i> terminal velocity	3
(iii)	faster speed / higher velocity / fell more quickly;  Any one of – smaller (surface) area; Initially less resistive force / air resistance / drag; different time (to reach terminal velocity); less deceleration (before reaching terminal velocity);	NOT ACCEPT ' <u>no</u> air resistance'  IGNORE upthrust	2
(b)	(Stopping distance) increased / further / longer;  Suitable reason, e.g. Since less braking force / air resistance / drag / takes longer to decelerate / reduced deceleration / smaller resultant force;	IGNORE references to 'longer time'  must be comparative, e.g. less / slower / longer	2

**Total 8 Marks**