

Name of the Student: \_\_\_\_\_

Max. Marks : 17 Marks

Time : 17 Minutes

Mark Schemes

**Q1.**

- (a) 3 (.0) *allow 1 mark for correct substitution i.e.  $25 \times 0.12$  provided no subsequent step* 2
- (b) (i) elastic potential *correct order only* 1
- kinetic 1
- (ii) increases 1
- to 80 (mm) (or more)  
*accept any number greater than 75*  
*an answer 'it (more than) doubles' gains both marks* 1
- (c) (i) weight 1
- (ii) downward speed increases 1
- [8]**

**Q2.**

- (a) terminal 1
- (b) 5.4 (kg) *correct substitution of  $54 = m \times 10$  gains 1 mark* 2
- (c) (i)  $0 < a < 10$  1
- some upward force  
*accept some drag / air resistance* 1
- reduced resultant force 1

(ii) 0

1

upward force = weight (gravity)

1

resultant force zero

1

**[9]**