| Qu | Scheme | Marks | AO |
|---------------|--|----------------|-------------|
| 1. (a) | Negative (since gradient of regression line is negative) | B1 | 1.2 |
| | | (1) | |
| | | | |
| (b) | cm/day (o.e. e.g. $cm day^{-1}$) | B1 | 2.2a |
| | | (1) | |
| | | | |
| (c) | $3 \times [\pm] 1.1$ | M1 | 3.4 |
| | = decrease of 3.3 [cm] | A1 | 1.1b |
| | | (2) | |
| | | | |
| (d) | 19 is (well) outside the range [1, 10] <u>or</u> involves extrapolation (o.e.) | B1 | 2.4 |
| | so (possibly) unreliable/ inaccurate (o.e.) | | |
| | | (1) (5 mark | c) |
| | Notos | (5 mark | .8) |
| | Answers may be written within the question | | |
| (9) | Answers may be written within the question. | | |
| (u) | Allow a correct interpretation e.g. as t increases then p decreases (o.e.) [is | nore anv | values] |
| | B0 for contradictory statements e.g. "negative correlation since as <i>t</i> increases <i>p</i> increases" | | |
| | | - | |
| (b) | for a correct description of the units (allow fraction, /, or "per" and allow "d" for "day") | | |
| | | | |
| (c) | M1 for attempt at a calculation (allow use of $t = x$ and $t = x + 3$ followed by subtraction that should lead to 3.3) | | |
| | A1 for correct description must include word "decrease" (o.e.) and value "3.3" | | |
| | Just seeing: $22-1.1 \times 3 = 18.7$ is M0A0 BUT going on to subtract 18.7 from 22 scores M1 | | |
| | Reaching 3.3 and stating "decrease" or "reduced" (o.e.) will score the A1 | too | |
| | An answer of -3.3 without a word describing decrease (o.e.) will just sco | ore M1A0 | |
| (d) | B1 for stating "unreliable" (a.e.) and giving a suitable reason based on idea | fextrano | lation |
| (u) | Must have both statement about reliability and suitable reason e σ $t = 19$ | is too bi | or or |
| | (Model is based on) t between 1 and 10 (only) [since this implies $t = 19$ is | too big] | 5 <u>01</u> |
| | Allow e.g. (model) "may not work" because of "extrapolation" | 81 | |
| | Just saying "no" since "extrapolation" is B0 but "unreliable"(o.e.) since "ex | trapolatio | on" is B1 |
| | | | |