

Question Number	Answer	Additional Guidance	Mark																					
3(a)(i)	<p>An answer that makes reference to the following:</p> <ul style="list-style-type: none"> • correct ranking for both columns (1) • correct difference in rank (1) • correct difference squared (1) 	<table border="1" data-bbox="1227 316 1783 523"> <tbody> <tr> <td>E</td> <td>48.8</td> <td>4</td> <td>23.6</td> <td>4</td> <td>0</td> <td>0</td> </tr> <tr> <td>F</td> <td>50.1</td> <td>7</td> <td>24.2</td> <td>5</td> <td>2</td> <td>4</td> </tr> <tr> <td>G</td> <td>49.2</td> <td>6</td> <td>23.1</td> <td>2</td> <td>4</td> <td>16</td> </tr> </tbody> </table> <p>-2 and -4 are incorrect differences in rank</p>	E	48.8	4	23.6	4	0	0	F	50.1	7	24.2	5	2	4	G	49.2	6	23.1	2	4	16	(3)
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3(a)(ii)	<ul style="list-style-type: none"> • numerator (top line of formula) correctly calculated (1) • denominator (bottom line of formula) correctly calculated (1) • correct answer (1) 	<u>Example of calculation</u> 6 x 34 or 204 7 x 48 or 336 0.3929 / 0.393 / 0.39 Correct answer with no working scores full marks	(3)

Question Number	Answer	Additional Guidance	Mark
3(a)(iii)	<p>An answer that makes reference to the following:</p> <ul style="list-style-type: none"> • no (significant) correlation (1) • as the calculated figure is less than { 0.786 / the critical value for p= 0.05 } (1) 	ALLOW not statistically significant ECF - ALLOW significant correlation if the value calculated for 3a(ii) is greater than { cv for 0.05 / 0.786 } ALLOW 5% FOR 0.05 ECF- ALLOW calculated value is greater than the cv if the value calculated for 3a(ii) is greater than 0.786	(2)

Question Number	Answer	Additional Guidance	Mark
3(b)(i)	<p>An answer that makes reference to the following:</p> <ul style="list-style-type: none"> • measure temperature from { several readings / random positions } (within the group of larvae) (1) • description of how mean calculated (1) 	<p>ALLOW stated number of measurements</p> <p>e.g. readings summated and answer divided by number of readings taken ALLOW 'average' for mean</p>	(2)

Question Number	Answer	Additional Guidance	Mark
3(b)(ii)	<p>An explanation that makes reference to the following:</p> <ul style="list-style-type: none"> • increases enzyme activity for (larvae / species F) (1) • high temperature { kills / denatures enzymes of } other species (1) • (high temperature) increases food availability by { reducing competition from other species / increasing rate of decomposition of rhino } (1) 	<p>ALLOW description of increase in activity including maximizes rate of growth/digestion, shorter lifecycle IGNORE ref to metabolic activity unqualified</p> <p>ALLOW outcompetes other {species / larvae} for food</p>	(3)