Question Number	Acceptable Answer	Additional guidance	Mark
2(a)	larvae show no significant preference for light over dark side (1)	Allow vice versa Must have NO in hypothesis.	**(1)**

Question Number	Acceptable Answer	Additional guidance	Mark
2(b)(i)	calculation of expected frequency 10 and 10 (1) $(O-E)^2/E$ for both light and dark sides $49 \div 10 = 4.9$ (1) sum = 9.8 (1)		**(3)**

Question Number	Acceptable Answer	Additional guidance	Mark
2(b)(ii)	An answer that makes reference to the following: • higher than 3.84 therefore Chi square value as high as 9.8 arise by chance alone less than 1 in 20 / 0.05 therefore there is a significant difference (1)	allow ECF for incorrect value of Chi allow converse if calculated of Chi is lower than 3.84	**(1)**

Question Number	Acceptable Answer	Additional guidance	Mark
2(c)	An explanation that makes reference to five of the following: • use of dead tissue containing toxin and dead tissue not containing tissue so valid comparison can be made (1) • {young larvae of same length / fly eggs} allowed access to both types of dead tissue so they have same potential for growth (1) • reference to time scale before growth of larvae measured to allow time for growth to occur (1) • length measured for several larvae to ensure reliability (1) • control of {temperature / type of tissue / age of tissue / species of larvae} because these factors affect growth (1) • recognition that comparison of results may show under or over estimate of time of death (1)		**(5)**

(Total for Question 2 = 10 marks)