Question Number	Scheme	Marks
2.		
(a)	Expected values: 13.75, 19.25, 17	B1
	$\frac{(18-13.75)^2}{13.75}$ $\frac{(15-19.25)^2}{19.25}$ $\frac{(17-17)^2}{17}$	M1
	Pass | 1.31 | 0.94 | 0 | 2.25	
	9.43	A2
		(4)
(b)	H_0 : Degree/category is independent of department (no association) H_1 : Degree/category is not independent of department (association)	B1
	$\nu = (3-1)(3-1) = 4$	B1
	$\chi^2_4(5\%) = 9.488$	B1ft
	'9.43' < 9.488, so do not reject H_0 / not significant	M1
	Not enough evidence to show that the **Degree/category** is not independent of **department** (no association) (at the 5% level of significance)	A1ft
		(5)
		Total 9
	Notes	
(a)	B1 All correct expected values (may be implied by A2) M1 Attempting $\frac{(O-E)^2}{E}$ for their E (may be implied by one correct value) A2 all 5 values correct (allow awrt) (A1 any 2 values correct)	
(b)	B1 Both hypotheses required must mention degree/category and department at least once. Use of "relationship" or "correlation" or "connection" or "link" award B0. B1 4 can be implied by 9.488 seen B1ft 9.488 or better. Follow through their ν so may see $\chi^2_{3,0.05} = 7.815$ $\chi^2_{2,0.05} = 5.991$ M1 Correct non-contextual conclusion for their (a) and c.v. Can be implied by correct conclusion in context ft their (a) and c.v. A1ft A correct comment in context. Condone "relationship" or "connection" here but **not** "correlation". Follow through from their test statistic and cv, but **hypotheses must be correct.**	