

Q	Marking instructions	AO	Marks	Typical solution
16	States $H_0: \rho = 0$ $H_1: \rho < 0$	2.5	B1	$H_0: \rho = 0$ $H_1: \rho < 0$  $-0.45 < -0.2787$
	Compares $\pm 0.45$ or $ -0.45 $ <b>and</b> $\pm 0.2787$  May be seen on a diagram	3.5a	M1	Reject $H_0$  There is sufficient evidence to suggest the student's belief that, in adults, there is a negative correlation between the amount of nicotine in their blood stream and their energy level
	States $-0.45 < -0.2787$ or $0.45 > 0.2787$ or $ -0.45  > 0.2787$ or $ -0.45  >  0.2787 $  <b>and</b>  Infers $H_0$ rejected Condone accept $H_1$	2.2b	A1	
	Concludes, from a fully correct comparison, in context by referring to <b>negative correlation</b> between the amount of <b>nicotine</b> in the blood stream and the <b>energy level</b> in adults  Conclusion must not be definite, eg use of 'suggest', 'support' etc  To be awarded R1, marks M1A1 must be scored as the minimum	3.2a	R1	
<b>Question 16 Total</b>			<b>4</b>	