

Question			Answer	Marks	Guidance
25	(a)	(i)	<u>disulfide</u> ✓	1	
		(ii)	<u>α-helix</u> ✓	1	<b>DO NOT ALLOW</b> a-helix
		(iii)	<u>quaternary</u> ✓	1	
	(b)	(i)	peptidoglycan / murein ✓	1	
		(ii)	<u>glycosidic</u> ✓ <u>water</u> ✓	2	<b>IGNORE</b> H <sub>2</sub> O
	(c)	(i)	<i>At higher temperature / 60°C</i> more kinetic energy therefore more, successful collisions / ESC formed ✓  initial rate (of reaction) faster ✓ enzyme (eventually) denatured and, less product formed / reaction stopped earlier / not all substrate reacted ✓	max 2	<b>ORA</b> for 37°C  <b>ALLOW</b> description of denatured
		(ii)	<i>At lower temperature / 25°C</i> less kinetic energy therefore less, successful collisions / ESC formed ✓  rate (of reaction) slower / taking more time for product to be formed ✓  not all substrate reacted (after 60 min) ✓	max 2	<b>ORA</b> for 37°C  <b>ALLOW</b> reaction not complete (in 60 min) <b>ALLOW</b> substrate (concentration) does not become limiting (in 60 min) <b>IGNORE</b> Ref to amount of product formed
			<b>Total</b>	<b>10</b>	