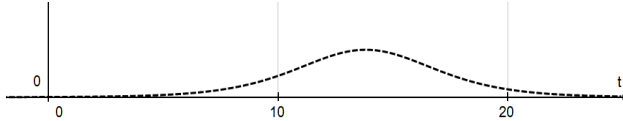


Question			Answer	Marks	AO	Guidance
9	(a)	(i)	0.3 [MWh]	B1 [1]	3.4	
9	(a)	(ii)	27 [MWh]	B1 [1]	3.4	$P = 0.3e^{0.5 \times 9} = 27.0051\dots$
9	(b)		Reason why model is not suitable, e.g. <ul style="list-style-type: none"> <li>The model is only based on data up to 2009</li> <li>The model predicts unlimited growth in solar energy and that is not possible</li> </ul>	B1 [1]	3.5b	Very large prediction in 2025 (80 501MWh) in unrealistic “Extrapolation” alone does not score, it would need explaining/clarifying
9	(c)		The graph gives a value close to 27 when $t = 9$	E1 [1]	3.2b	Correct reasoning (answer given)
9	(d)	(i)		B1 B1 [2]	2.2a 2.2a	Gradient increasing from near zero to maximum for value of $t$ somewhere between 10 and 20 Gradient decreasing to near zero from max value
9	(d)	(ii)	14	B1 [1]	1.2	Answer in range 13 to 15
9	(d)	(iii)	This is when the rate of increase of electricity production is greatest	E1 [1]	3.2a	
9	(e)		300 [MWh]	B1 [1]	2.2a	Accept answer in range 300 to 305