Question	Scheme	Marks	AOs
5 (a)	The seeds would be destroyed in the process so they would have none to sell	B1	2.4
		(1)	
(b)	[S = no. of seeds out of 24 that germinate, $S \sim$ B(24, 0.55)]		
	T = no. of trays with at least 15 germinating. $T \sim$ B(10, p)	M1	3.3
	$p = $ P($S \geqslant 15$) = 0.299126...	A1	1.1b
	So P($T \geqslant 5$) = 0.1487... awrt **0.149**	A1	1.1b
		(3)	
(c)	n is large and p close to 0.5	B1	1.2
		(1)	
(d)	$X \sim$ N(132, 59.4)	B1	3.4
	P($X \geqslant 149.5$) = P$\left(Z \geqslant \dfrac{149.5 - 132}{\sqrt{59.4}} \right)$	M1	1.1b
	$\quad = \ 0.01158...$ awrt **0.0116**	A1cso	1.1b
		(3)	
(e)	e.g The probability is very small therefore there is evidence that the company's claim is incorrect.	B1	2.2b
		(1)	
		(9 marks)	

Notes:

(a)
B1: cao

(b)
M1: for selection of an appropriate model for T
1st A1: for a correct value of the parameter p (accept 0.3 or better)
2nd A1: for awrt 0.149

(c)
B1: both correct conditions

(d)
B1: for correct normal distribution
M1: for correct use of continuity correction
A1: cso

(e)
B1: correct statement