Question number		Answer	Notes	Marks
5 (a)		step-up transformer increases voltage OR step-down transformer decreases voltage;		4
		step-up transformer reduces current;		
		(lower current means) lower heating/energy losses;		
		(town) requires low voltage {for safety / to reduce chance of electrocution / so appliances operate correctly};		
(b)	(i)	$N_p/N_s = V_p/V_s$;	allow any correct rearrangement or word formula allow n, T for turns allow 1, in for p allow 2, out for s	1
	(ii)	substitution; rearrangement; evaluation; e.g. $3300/N_s = 15/340$ $N_s = (3300 \times 340) \div 15$ $(N_s =) 75\,000$	-1 for POT error allow 74 800	3
(c)	(i)	thermal (store);	condone heat	1
	(ii)	any three from: MP1. field lines cut by core; MP2. idea of an induced voltage; MP3. conductors have **free** electron(s); MP4. idea that there is a force on the electron(s); MP5. idea that the movement of electrons is the current;		3

Total for Question 5 = 12 marks