Question number		Answer	Notes	Marks
6 (a)		C (kinetic energy to electrical energy)		1
(b) (i)			No mark for stating the formula, since E = I x V x t is given on page 2	3
		Conversion to seconds; Substitution into correctly rearranged equation; Calculation; e.g. (time =) 60 (s) 39 000 000 (490 x 60) 1300 (V)	60 seen in working 1330, 1327, 1326.5 (V) Correct answer without working scores full marks Allow 1.3 kV for THREE marks Allow Power of Ten error , for a maximum of TWO marks e.g. 1.326 x10^{-3}, 1.33, 130	
(ii)		Any four of MP1 (High voltage leads to) low current; MP2 mention of a relevant equation e.g. P=IV, $P=I^2R$; MP3 Less energy is lost (from the wires); MP4 More efficient; MP5 can use thinner wires;	 Allow less heat loss Ignore cost argument Allow: Can transmit the energy further	4
(c) (i)		Current that changes direction (continuously); 100 times per second;	Allow switches from +ve to –ve. Allow 50 times/cycles per second. Allow time period e.g. 0.01 s, 0.02 s, 1/50s	2
(ii)		Transformers change the voltage / current; Transformers use alternating current / a.c.;	Allow step-up, step-down Allow reverse argument	2

Total for question 6 = 12 marks