

Q1. (2022)

a)

01.3	the <u>national grid</u>		1	AO1 6.2.4.3
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b)

01.4	potential difference increases	allow large potential difference	1	AO1 6.2.4.3
	current is reduced	allow small current	1	
	so there is less / low energy loss (to the surroundings)	allow less / low heating in the transmission cables	1	
		ignore resistance do not allow no energy loss		

Q2. (2023)

a)

03.1	potential difference is increased	allow transformer X is a step up transformer	1	AO1 6.2.4.3
	(and) current decreases		1	
	(so) energy/power losses in the transmission cables decrease	allow (so) there is less heating in the transmission cables	1	

b)

03.2	$11\,000 \times I_s = 400\,000 \times 660$		1	AO2 6.2.4.3
	$I_s = \frac{400\,000 \times 660}{11\,000}$		1	
	$I_s = 24\,000 \text{ (A)}$		1	