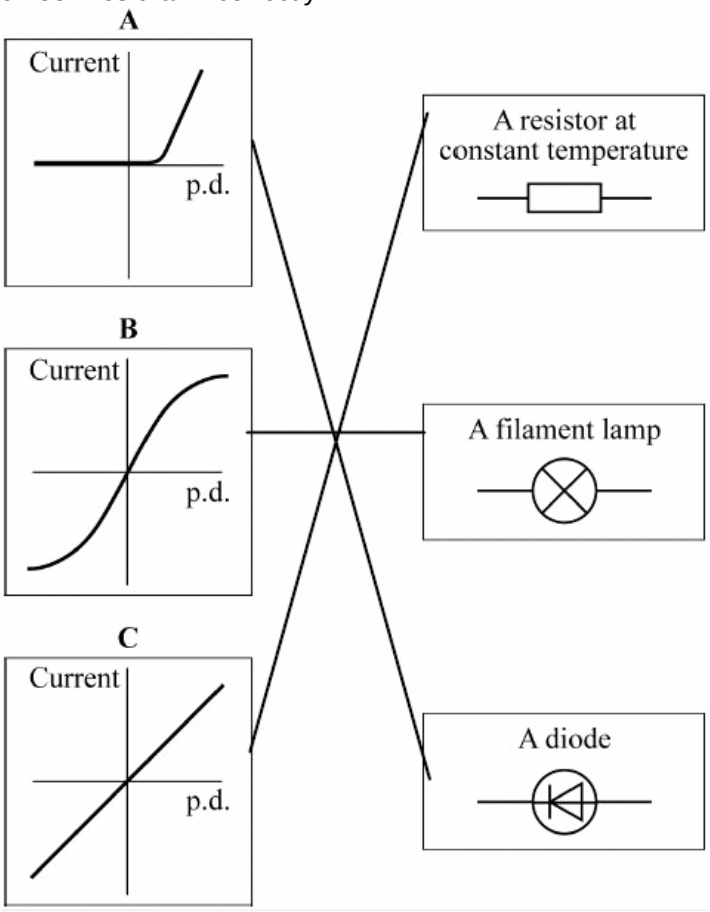
Electrical circuits – *Mark scheme*

1. (a) **three** lines drawn correctly



2

*allow **1** mark for 1 correct line*
if more than one line goes from a graph, both are incorrect

(b) **J** 1

[3]

2. (a) (i) 6 1

(ii) 6 (volts) 1

accept their (a) (i) ignore any units

(b) 0.30 *accept 0.3* 1

(c) smaller(than) 1

accept correct alternatives to smaller than e.g. less than

a bigger current flows through the lamp 1

only accept if 'smaller than' is given; accept converse
accept a correct calculation; accept resistance is half of 60
accept resistance = 30 (Ω)
*do **not** accept answers in terms of p.d*

[5]

3.	(i)	30 *allow **1** mark for showing correct method* *i.e. 5 × 6 **or** 12 ÷ 0.4*	2
	(ii)	connected in <u>series</u> *insufficient they are not connected in parallel*	1
	(iii)	0.4	1
	(iv)	equally/ evenly *the same is insufficient* *allow credit for candidates that correctly mention pd across the connecting wires* *accept (nearly) 2 V (each)*	1

[5]