

Q1. (2018)

08.3	Level 3: Relevant points (reasons / causes) are identified, given in detail and logically linked to give a clear account.	5–6	AO2
	Level 2: Relevant points (reasons / causes) are identified, and there are attempts at logically linking. The resulting account is not fully clear.	3–4	AO2
	Level 1: Points are identified and stated simply, but their relevance is not clear and there is no attempt at logical linking.	1–2	AO1
	No relevant content	0	
	Indicative content <ul style="list-style-type: none"> • completing the circuit • turns the electromagnet on • there is a current in the coil • a magnetic field is produced around the coil • the iron core becomes magnetised • move electromagnet towards the blocks • the block is attracted to the electromagnet • moving the crane moves the block • switching off the current switches off the electromagnet • releasing the block 		6.7.2.1

Q2. (2021)

a)

02.2		1	AO3 6.7.1.1
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b)

02.3	the iron bar experiences a magnetic force of attraction	1	AO1 6.7.1.1
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Q3. (2021)

a)

02.4	nickel	1	AO1 6.7.1.2
	steel	1	

b)

02.5	an electromagnet can be switched on and off	1	AO3 6.7.2.1
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Q4. (2021)

a)

02.6	the iron nail makes the magnetic field stronger	1	AO1 6.7.2.1
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b)

02.7	use a greater current	1	AO1 6.7.2.1
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Q5. (2023)

03.5	circular		1	AO1 6.7.2.1
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Q6. (2023)

a)

03.6	a control		1	AO3 6.7.2.1
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b)

03.7	3.6 (N)		1	AO2 6.7.2.1
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c)

03.8	(the force) decreases		1	AO1 6.7.2.1
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