Practice Question Set For GCSE
**Subject : Physics**
**Paper-2 Topic : 12_Magnetism And The Motor Effect**

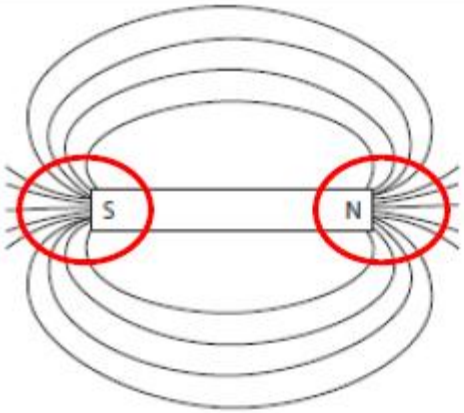
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**Name of the Student**:_____
**Max. Marks : 13 Marks** **Time : 13 Minutes**

Mark Schemes

**Q1.**

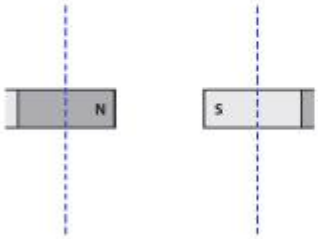
| Question | Answer | Additional guidance | Mark |
|---|---|---|---|
| (i) | arrow(s) going from N to S on any field line (1) | any contradictory arrow loses the mark | (1) AO1.1 |

| Question | Answer | Additional guidance | Mark |
|---|---|---|---|
| (ii) | **X** drawn close to N or S (1) |  any X drawn outside either ellipse loses the mark - judge by eye | (1) AO1.1 |

| Question | Answer | Additional guidance | Mark |
|---|---|---|---|
| (iii) | **one** reason from:<br><br>where the (field) lines are close(st) (to each other) (1)<br><br>close to the pole(s) (1) | <br><br>accept where there are most lines<br><br>ignore close to the magnet | (1) AO1.1 |

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**Q2.**

| Question | Answer | Additional guidance | Mark |
|---|---|---|---|
| (i) | at least 1 straight line between the N and S (1)<br><br>at least 1 curved line between N and S (1) | <br>ignore lines that start or end outside the region identified<br><br>do not accept any contradictory lines within the region<br><br>ignore any arrows | **(2)**<br>**AO2.2** |

| Question | Answer | Additional guidance | Mark |
|---|---|---|---|
| (ii) | (it would) move towards the other magnet (1) | idea of attraction/joining together | **(1)**<br>**AO3.3** |

**Q3.**

| Question number | Answer | Additional guidance | Mark |
|---|---|---|---|
| **(i)** | (soft) iron (1) | allow (in this context)<br>nickel (alloys)<br>cobalt<br>steel | **(1)**<br><br>**AO1** |

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| Question number | Answer | Additional guidance | Mark |
|---|---|---|---|
| **(ii)** | would be magnetised (when switch is closed) (1)<br><br>would be demagnetised when switch is open (1) | (is) magnetic<br>(is) electromagnetic<br>induced magnetism<br><br>magnetism can be switched off<br><br>accept for either mark<br>not permanent magnet<br>**or**<br>temporary magnet | **(2)**<br><br>**AO1** |

**Q4.**

| Question Number: | Answer | Mark |
|---|---|---|
| | B iron<br><br>**The only correct answer is B**<br><br>***A*** *is not correct as copper is non-magnetic*<br>***C*** *is not correct as plastic is non-magnetic*<br>***D*** *is incorrect, as steel is only suitable for a permanent magnet* | **(1)**<br>AO 1 1 |

**Q5.**

| Question Number: | Answer | Additional guidance | Mark |
|---|---|---|---|
| **(i)** |  | N must be at the end of the bar, not at the end of the compass needle | **(1)**<br>AO 3 3a |

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| Question Number: | Answer | Additional guidance | Mark |
|---|---|---|---|
| (ii) | any two developments from:<br><br>use a compass in various positions / more compasses (1)<br><br>plot more points/mark direction of compass(point)/ join the dots (1)<br><br>sprinkle/add iron filings (1)<br><br>give more than one (magnetic field) line (1) | marks can be taken from text or diagram<br><br>allow 'around' 'on', 'near' the magnet etc<br><br>series of dots / several compasses end to end | **(2)**<br>AO 3 3a |

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