

Magnetism: Exam Revision Tracker



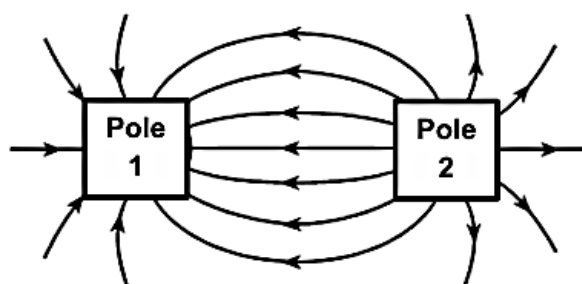
Attempt #1		Attempt #2		Attempt #3		Attempt #4		Attempt #5	
Total	Score	Total	Score	Total	Score	Total	Score	Total	Score
6		6		9		11		8	
Percentage =		Percentage =		Percentage =		Percentage =		Percentage =	

Magnetism: Attempt #1



Total = 6 Marks

The magnetic field lines between two magnetic poles of a magnet are shown in the diagram below.



1. The magnetic force is a non-contact force.
 - 1.1 Define the term *non-contact force*. (2)
 - 1.2 Give another example of a non-contact force. (1)
2. What is the nature of the force between the two poles? (1)
3. What is the polarity of pole 2? Give a reason for the answer. (2)

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Magnetism: Attempt #2 ⚡

Total = 6 Marks

1. Define a *magnetic field*. (2)
2. The diagram below shows a bar magnet.



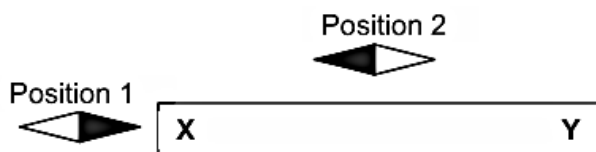
Draw the magnetic field pattern associated with the bar magnet. (3)

3. Is it possible for a magnet to have one pole? Yes or No. (1)

Magnetism: Attempt #3 ⚡

Total = 9 Marks

A compass is used to determine the poles of a magnet. The compass is placed in different positions around the magnet, as shown below. The dark arrow indicates the north pole of the compass.



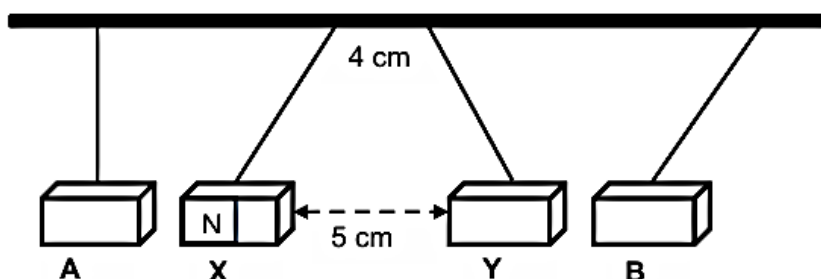
1. Explain the term *ferromagnetic materials*. (2)
2. Is X a NORTH pole or a SOUTH pole? (1)
3. At which position, 1 or 2, will the compass experience the strongest magnetic force? Give a reason for the answer. (2)
4. What is the direction of a magnetic field? Choose from NORTH TO SOUTH or from SOUTH TO NORTH. (1)
5. Give ONE term for each of the following descriptions:
 - 5.1 The point in the Northern Hemisphere where the rotation axis of the Earth meets the surface (1)
 - 5.2 The point where the magnetic field lines of the Earth enters the Earth (1)
6. State ONE advantage of the Earth's magnetosphere for life on Earth. (1)



Magnetism: Attempt #4 ⚡

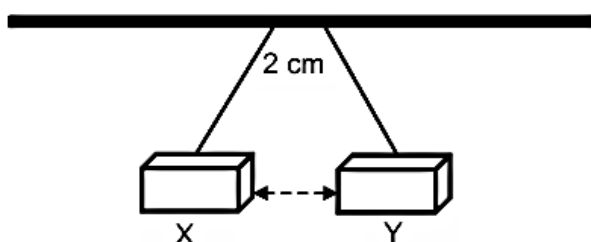
Total = 11 Marks

Four metallic bars, suspended freely from a ceiling, interact, as shown in the diagram below. The points of attachment of **X** and **Y** on the ceiling are 4 cm apart.



The two bars in the middle are **bar magnets** (**X** and **Y**) and the distance between them is 5 cm. One of the bars (**A** or **B**) is made of iron and the other is made of gold.

1. Write down the term describing a material that is easily magnetised. (1)
2. Which ONE of the bars (**A** or **B**) is made of iron? (1)
3. Determine the polarity of bar **B** closest to bar magnet **Y**. Write only NORTH or SOUTH. (1)
4. Explain the answer to QUESTION 9.3. (2)
5. Sketch the magnetic field pattern around bar magnet **X**. (3)
6. Bars **A** and **B** are now removed and the points of attachment are now 2 cm, as shown in the diagram below.



- 6.1 How will the change in the position of the attachment affect the final distance of separation between the bars? Write only GREATER THAN 5 cm, LESS THAN 5 cm or REMAINS at 5 cm. (1)
- 6.2 Explain the answer to QUESTION 9.6.1. (2)

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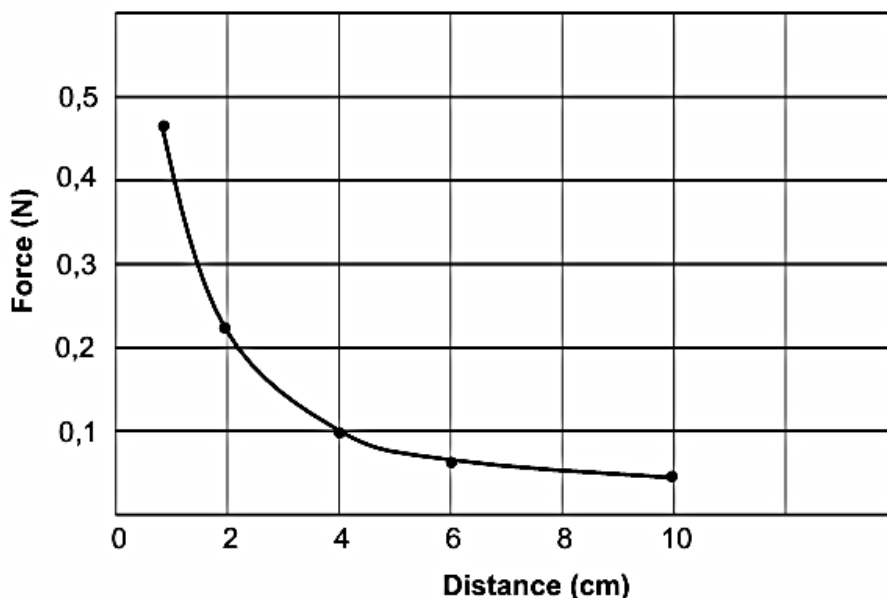
Magnetism: Attempt #5 ⚡

Total = 8 Marks

Two magnets are placed so that their north poles face each other.



1. Explain the term *magnetic field*. (2)
2. Draw the magnetic field pattern between the two north poles of the magnets. (3)
3. The graph below shows how the magnetic force varies with distance between the magnets.



- 3.1 What is the mathematical relationship between magnetic force and distance between the two magnets? (1)
- 3.2 What is the magnitude of the magnetic force between the two magnets when they are 4 cm apart? (1)
- 3.3 How far apart must the magnets be to experience a force of 0,05 N? (1)

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