

Signature:

Name:

Marks:

## Magnetic Field Patterns

Q1.

Draw the magnetic field patterns for each of the following

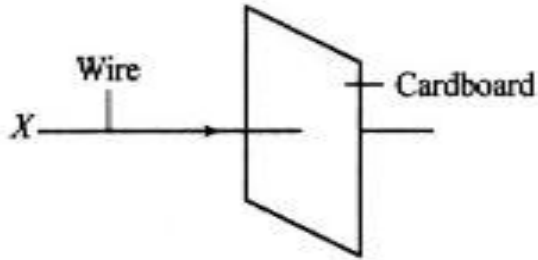


Figure 1

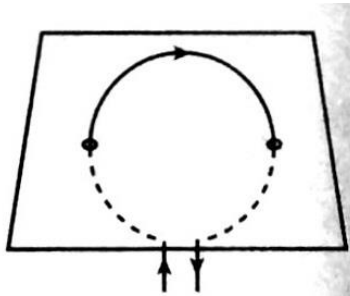


Figure 2

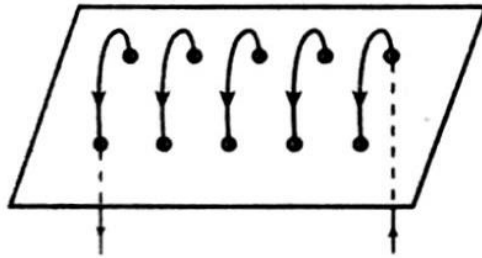


Figure 3

Signature:

Name:

Marks:

**Q2.**

Draw the magnetic field patterns for each of the following

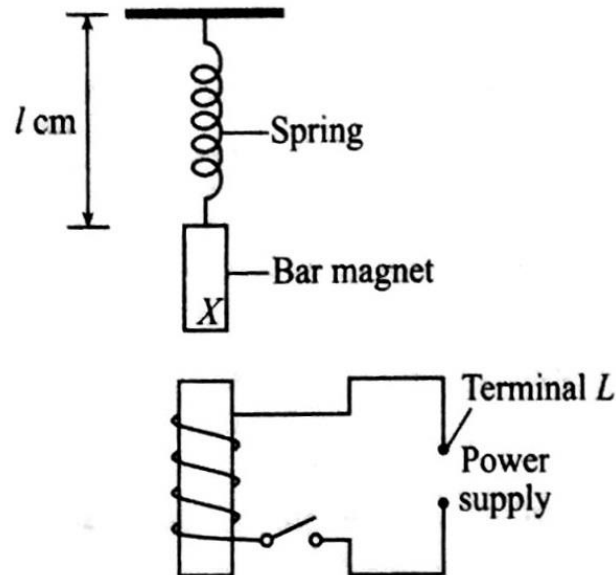
The diagram shows a large rectangular box containing the following magnetic field symbols:

- A single black dot (representing a current coming out of the page) at the top center.
- A single black dot (representing a current coming out of the page) on the left side.
- A single blue cross (representing a current going into the page) on the right side.
- A vertical column of five black dots (representing a current coming out of the page) on the left side.
- A vertical column of five blue crosses (representing a current going into the page) on the right side.

Magnetic Field Patterns\2

Signature: Name: Marks: **Q3.**

The figure below shows a vertical spring with a bar magnet hanging at the lower end. An electromagnet is placed below the bar magnet. The length of the spring is  $l$  cm. When the switch is closed, the length of the spring became shorter. Which of the following statements is true about pole X of the bar magnet and terminal L of the power supply?



	Pole X	Terminal L
<b>A</b>	North	Either positive or negative
<b>B</b>	South	Either positive or negative
<b>C</b>	South	Negative only
<b>D</b>	North	Negative only

Figure 4

Signature: Name: Marks: **Q4.**

In the figure below, opposite poles of a pair of magnetur magnets face each other with a current-carrying conductor in the magnetic field. The current flows out of the paper. On the figure, draw the resultant catapult field.

