

السادس  
نيل فني

Section Three:

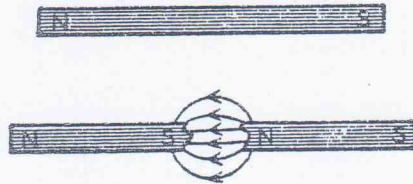
Reading Comprehension Exercises

Read the following text carefully and then select a,b, c or d which best completes the following items.

## Magnets

A magnet is a substance which attracts certain other substances. Substances which are attracted by a magnet are known as magnetic substances. Iron, cobalt, and nickel are magnetic substances. They are attracted by magnets and can themselves be magnetized.

- 5 Magnetism is concentrated in the two ends of a magnet. These are called poles. The two poles are named the north pole and the south pole. All magnetized objects seem to have inseparable north and south poles. Even when the objects are broken into tiny pieces, each piece will still have two poles. No separate north or south pole has ever been found.



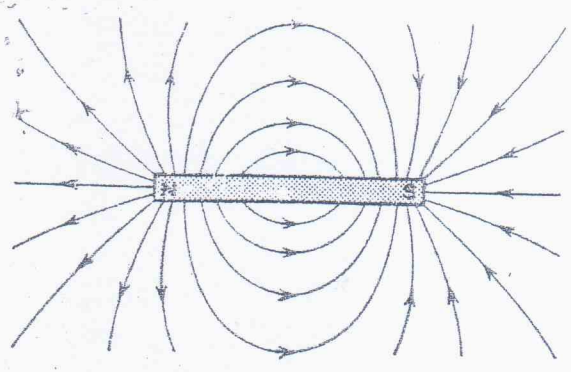
*Magnetism*

- 10 In all magnets, the north pole repels all other north poles but attracts the south poles and vice versa. In other words, like poles repel each other, and unlike poles attract each other.



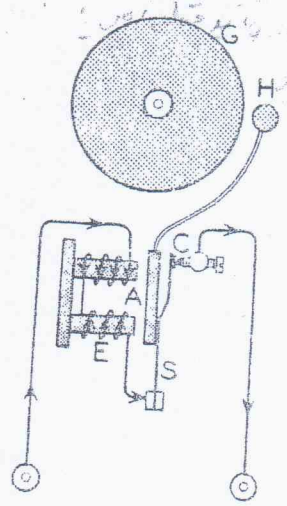
*Magnetic attraction and repulsion*

15 The area in which the magnetic attraction works is known as the magnetic field. The field of magnetic force can be demonstrated by placing a piece of glass over a magnet and sprinkling iron filings over the surface of the glass. The curved lines formed by the iron filings indicate the location of the magnetic lines of force.



Field of a bar magnet

20 Magnetism which is induced by an electric current is known as electromagnetism. When a current is passed through a conductor, a magnetic field is formed around it. (A piece of iron or steel placed in this field is magnetized and is known as an electromagnet) Electric bells, telephone receivers, and many other devices operate on the principle of electromagnetism.



Electric bell

1. Iron, cobalt, and nickel are .....
  - a. attracted by magnets only
  - b. attracted by magnets and can also be magnetized
  - c. neither attracted by magnets nor can be magnetized
  - d. not attracted by magnets, but can be magnetized
2. When a magnetized object is broken into pieces, it will .....
  - a. lose its magnetism
  - b. only have the north pole
  - c. still have the south pole and the north pole
  - d. only have the south pole
3. The field of magnetic force is where the .....
  - a. two poles are located
  - b. iron filings are located
  - c. curved lines are formed by the iron filings
  - d. two poles and iron filings are located
4. In all magnets .....
  - a. all poles attract each other
  - b. unlike poles attract each other
  - c. unlike poles repel each other
  - d. like poles attract each other
5. The main point in paragraph 5 is the indication of .....
  - a. relationship between electricity and magnetism
  - b. discovery of the telephone receiver
  - c. relationship between the electric bell and the telephone
  - d. principle on which the electric devices operate

Section Four:

Translation Practice and Terminology Equivalents

- A. Translate the following passage into Farsi. Write your translation in the space provided.

Force is a vector quantity, i.e., it has direction as well as magnitude. The direction of the force experienced by a conductor in a magnetic field is at right angles to the field and at right angles to the current. If two of