

## **Reading Comprehension**

 $^{-}$  A semiconductor diode's behavior in a circuit is given by its current–voltage characteristic, or I–V graph (see graph below). The shape of the curve is determined by the transport of charge carriers through the so-called depletion layer or depletion region that exists at the p–n junction between differing semiconductors. When a p–n junction is first created, conduction-band (mobile) electrons from the N-doped region diffuse into the P-doped region where there is a large population of holes (vacant places for electrons) with which the electrons "recombine". When a mobile electron recombines with a hole, both hole and electron vanish, leaving behind an immobile positively charged donor (dopant) on the N side and negatively charged acceptor (dopant) on the P side. The region around the p–n junction becomes depleted of charge carriers and thus behaves as an insulator.

## ANSWER THE FOLLOWING QUESTION?

1-Translate a paragraph into persian?

Y-Sketch a I–V diode's behavior in a graph(I–V characteristic)?

<sup>γ</sup>-explain a test of diode?

<sup>£</sup>-which of the instrument to check a fuse?

5-which of the instrument to check a diode?

6-describe why master-slave flip-flops are called ones catching?

7- write a letter for a company or electronic's store and order instrument and equipment?

I wish a success for Iranian and specially for you