



### **Part III: Reading comprehension**

#### **Read the following passage then answer the questions below:**

The word LASER was coined as an acronym for Light Amplification by the Stimulated Emission of Radiation. Ordinary light, from the sun or a light bulb, is emitted spontaneously, when atoms or molecules get rid of excess energy by themselves, without any outside intervention. Stimulated emission is different because it occurs when an atom or molecule holding onto excess energy has been stimulated to emit it as light.

Charles H. Town was the first to succeed in discovering a way by which one atom or molecule could stimulate many others to emit light, amplifying it to much higher powers. However, instead of working with light, he worked with microwaves, which have a much longer wavelength, and built a device he called a "maser" for Microwave Amplification by the Stimulated Emission of Radiation.

#### **Questions:**

- 1- The word "coined" in line 1 could best be replaced by  
A- discovered                      B- created                      C- understood
- 2- The word "intervention" in line 4 is closest in meaning to  
A- need                              B- device                      C- influence
- 3- The word "it" in line 5 refers to  
A- energy                              B- atom                      C- molecule
- 4- Which of the following statements best describes a laser?  
A- An instrument for measuring light waves  
B- An atom in a high-energy state  
C- A device for stimulating atoms and molecules to emit light
- 5- Why was Town's early work with stimulated emission done with microwaves?  
A- It was easier to work with longer wavelengths  
B- The laser had already been developed  
C- He was not concerned with light amplification

### **Part IV-Composition**

#### **Write a paragraph on ONE of the following topics:**

1. Means of communications are developing rapidly. Discuss
2. Solar energy.

*Good luck*