

## Note Taking Guide - Program 1302 - Part 2

illuminated body -

The \_\_\_\_\_ is an example.

luminous body -

The \_\_\_\_\_ is an example. A \_\_\_\_\_ is also an example.

How is light produced?

1)

2)

3)

4)

5)

6)

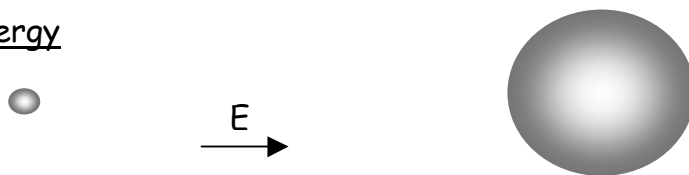
LASER - \_\_\_\_\_ by \_\_\_\_\_ of \_\_\_\_\_

coherent light -

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- 
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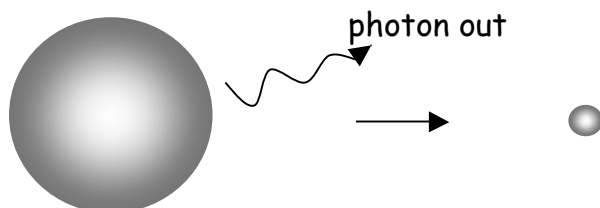
### Atom absorbs energy



An atom in its lowest energy state is in the \_\_\_\_\_ state.

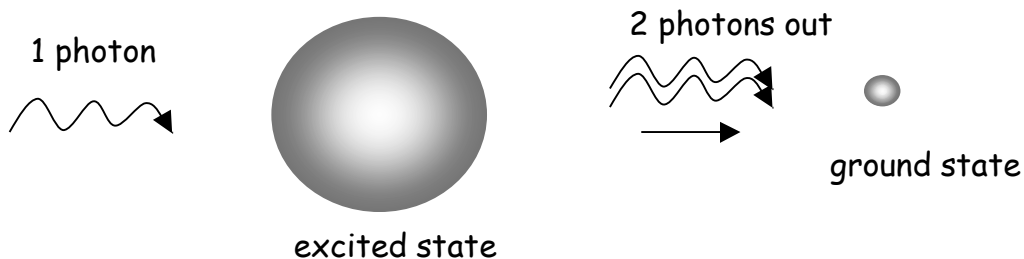
When the atom absorbs energy, it changes to an \_\_\_\_\_ state.

### Spontaneous Emission



Sooner or later, the atom gives off a \_\_\_\_\_ of light as it drops back to the ground state. This process is known as \_\_\_\_\_ emission.

### Stimulated Emission



Einstein thought that if an excited atom could be hit with a \_\_\_\_\_ identical to the one it is ready to emit, the \_\_\_\_\_ will fall \_\_\_\_\_ and give off the \_\_\_\_\_. This process is called \_\_\_\_\_ emission. Einstein also predicted that this could produce a chain reaction.

Einstein did not produce a device that produced stimulated emission, but in 1961 a scientist named \_\_\_\_\_ did.

### Uses of lasers-

