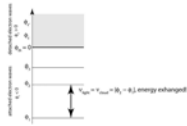
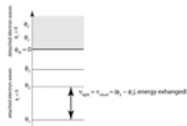


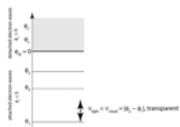
- 1 What is true about light of frequency $|f_2 - f_1|$?



- A It can only be absorbed, but not emitted.
 - B It can only be emitted, but not absorbed.
 - C It can be both absorbed and emitted.
 - D Matter will be transparent to light of this frequency
- 2 When light of frequency $|f_2 - f_1|$ is absorbed, what happens to the amplitude of the light wave?



- A It is not affected. All that matters is that $n = |f_2 - f_1|$.
 - B It goes down.
 - C It goes up.
 - D Further information required.
- 3 What is true about light of frequency less than $|f_2 - f_1|$?

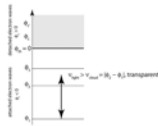


- A It can only be absorbed, but not emitted.
- B It can only be emitted, but not absorbed.
- C It can be both absorbed and emitted.
- D Matter will be transparent to light of this frequency

4 What is true about light of frequency

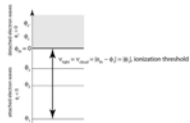
greater than $|f_2 - f_1|$

but less than $|f_{th} - f_1|$



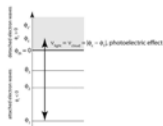
- A It can only be absorbed, but not emitted.
- B It can only be emitted, but not absorbed.
- C It can be both absorbed and emitted.
- D Matter will be transparent to light of this frequency

5 What is true about light of frequency equal to $|f_{th} - f_1|$?



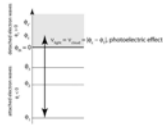
- A It can only be absorbed, but not emitted.
- B It can only be emitted, but not absorbed.
- C It can be both absorbed and emitted.
- D Matter will be transparent to light of this frequency

6 What is true about light of frequency greater than $|f_{th} - f_1|$?



- A It can only be absorbed, but not emitted.
- B It can only be emitted, but not absorbed.
- C It can be both absorbed and emitted.
- D Matter will be transparent to light of this frequency

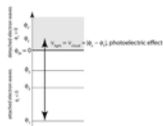
7 What is true about light of frequency $|f_e - f_1|$?



- A It can only be absorbed, but not emitted.
- B It can only be emitted, but not absorbed.
- C It can be both absorbed and emitted.
- D Matter will be transparent to light of this frequency

8 Light of frequency $|f_e - f_1|$ is absorbed.

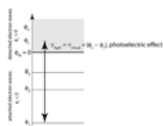
What happens to the amplitude of the light wave?



- A It is not affected. All that matters is that $n = |f_e - f_1|$.
- B It goes down.
- C It goes up.
- D Further information required.

9 Light of frequency $|f_e - f_1|$ is absorbed.

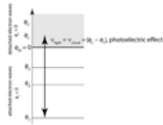
If the light is made brighter, this means...



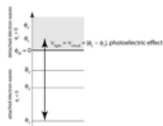
- A More energy is available in the light, since the amplitude is higher.
- B There is no change in energy, since it depends only on n
- C Further information needed

- 10 Light of frequency $|f_e - f_1|$ is absorbed.

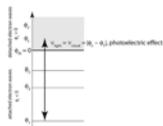
Can the atom absorb more energy than $h|f_e - f_1|$?



- A Yes
 - B No
 - C Further information needed
- 11 Light of frequency $|f_e - f_1|$ is absorbed.
- If the light is made brighter, this means...



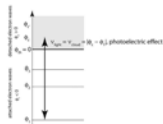
- A More atoms can absorb energy $h|f_e - f_1|$
 - B There will be no change, since each atom can absorb only energy $h|f_e - f_1|$
 - C Further information needed
- 12 Light of frequency $|f_e - f_1|$ is absorbed.
- If the light is made brighter, this means...



- A More electrons will be ejected from each atom
- B More atoms will have a single electron ejected from them
- C Further information needed

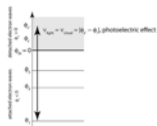
- 13 Light of frequency $|f_e - f_1|$ is absorbed.

If the light is made brighter, this means...



- A More electrons will be ejected and each electron will have more energy.
 - B More electrons will be ejected and each electron will have the same energy.
 - C Further information needed
- 14 An atom can absorb light of frequency $|f_e - f_1|$.

Can an atom absorb more than light of frequency $|f_e - f_1|$?



- A Yes
- B No
- C Further information needed