1. What is the primary source of energy for spectroscopy?

A. The sun
B. The stars
C. The atom

2. What is the most important factor in determining the energy of a photon?

A. The wavelength of the photon
B. The frequency of the photon
C. The energy of the atom

3. What is the relationship between the energy of a photon and its wavelength?

A. The energy of a photon is inversely proportional to its wavelength
B. The energy of a photon is directly proportional to its wavelength
C. The energy of a photon is proportional to the square of its wavelength

4. What is the relationship between the energy of a photon and its frequency?

A. The energy of a photon is inversely proportional to its frequency
B. The energy of a photon is directly proportional to its frequency
C. The energy of a photon is proportional to the square of its frequency

5. What is the most important factor in determining the wavelength of a photon?

A. The energy of the photon
B. The frequency of the photon
C. The energy of the atom

6. What is the relationship between the wavelength of a photon and its frequency?

A. The wavelength of a photon is inversely proportional to its frequency
B. The wavelength of a photon is directly proportional to its frequency
C. The wavelength of a photon is proportional to the square of its frequency

7. What is the most important factor in determining the frequency of a photon?

A. The wavelength of the photon
B. The energy of the photon
C. The energy of the atom

8. What is the relationship between the frequency of a photon and its wavelength?

A. The frequency of a photon is inversely proportional to its wavelength
B. The frequency of a photon is directly proportional to its wavelength
C. The frequency of a photon is proportional to the square of its wavelength

9. What is the most important factor in determining the energy of an atom?

A. The energy of the photon
B. The wavelength of the photon
C. The frequency of the photon

10. What is the relationship between the energy of an atom and the energy of a photon?

A. The energy of an atom is inversely proportional to the energy of a photon

B. The energy of an atom is directly proportional to the energy of a photon
C. The energy of an atom is proportional to the square of the energy of a photon

11. What is the most important factor in determining the wavelength of an atom?

A. The energy of the photon
B. The wavelength of the photon
C. The frequency of the photon

12. What is the relationship between the wavelength of an atom and the wavelength of a photon?

A. The wavelength of an atom is inversely proportional to the wavelength of a photon
B. The wavelength of an atom is directly proportional to the wavelength of a photon
C. The wavelength of an atom is proportional to the square of the wavelength of a photon

13. What is the most important factor in determining the frequency of an atom?

A. The wavelength of the photon
B. The energy of the photon
C. The energy of the atom

14. What is the relationship between the frequency of an atom and the frequency of a photon?

A. The frequency of an atom is inversely proportional to the frequency of a photon
B. The frequency of an atom is directly proportional to the frequency of a photon
C. The frequency of an atom is proportional to the square of the frequency of a photon

15. What is the most important factor in determining the energy of a molecule?

A. The energy of the photon
B. The wavelength of the photon
C. The frequency of the photon

16. What is the relationship between the energy of a molecule and the energy of a photon?

A. The energy of a molecule is inversely proportional to the energy of a photon
B. The energy of a molecule is directly proportional to the energy of a photon
C. The energy of a molecule is proportional to the square of the energy of a photon

17. What is the most important factor in determining the wavelength of a molecule?

A. The energy of the photon
B. The wavelength of the photon
C. The frequency of the photon

18. What is the relationship between the wavelength of a molecule and the wavelength of a photon?

A. The wavelength of a molecule is inversely proportional to the wavelength of a photon
B. The wavelength of a molecule is directly proportional to the wavelength of a photon
C. The wavelength of a molecule is proportional to the square of the wavelength of a

photon

19. What is the most important factor in determining the frequency of a molecule?

A. The wavelength of the photon
B. The energy of the photon
C. The energy of the atom

20. What is the relationship between the frequency of a molecule and the frequency of a photon?

A. The frequency of a molecule is inversely proportional to the frequency of a photon
B. The frequency of a molecule is directly proportional to the frequency of a photon
C. The frequency of a molecule is proportional to the square of the frequency of a photon

Answer Key:

1. C
2. B
3. B
4. B
5. C
6. B
7. B
8. B
9. C
10. B
11. C
12. B
13. C
14. B
15. C
16. B
17. C
18. B
19. C
20. B