Assignment 8

The due date for submitting this assignment is passed. You may not submit this assignment.

1. A light-emitting diode, mounted high and southeast light has a wavelength of \( \lambda_1 \) and \( \lambda_2 \) respectively. Choose the correct option:
   - (A) Raman shifting is a non-elastic scattering with \( \lambda_1 = \lambda_2 \)
   - (B) Raman shifting is a non-elastic scattering with \( \lambda_1 < \lambda_2 \)
   - (C) Raman shifting is a non-elastic scattering with \( \lambda_1 > \lambda_2 \)

   **Answer:** (B) Raman shifting is a non-elastic scattering with \( \lambda_1 < \lambda_2 \)

2. Given that the sum of the elastic, and inelastic parts is always equal to \( E_{\text{total}} \), what will be the sum of the elastic part? (H: C = Constant)

   **Answer:** \( C \times \lambda^2 \)

3. A light-emitting diode, mounted high and southeast light has a wavelength of \( \lambda_1 \) and \( \lambda_2 \) respectively. Choose the correct option:
   - (A) Raman shifting is a non-elastic scattering with \( \lambda_1 = \lambda_2 \)
   - (B) Raman shifting is a non-elastic scattering with \( \lambda_1 < \lambda_2 \)
   - (C) Raman shifting is a non-elastic scattering with \( \lambda_1 > \lambda_2 \)

   **Answer:** (B) Raman shifting is a non-elastic scattering with \( \lambda_1 < \lambda_2 \)

4. A light-emitting diode, mounted high and southeast light has a wavelength of \( \lambda_1 \) and \( \lambda_2 \) respectively. Choose the correct option:
   - (A) Raman shifting is a non-elastic scattering with \( \lambda_1 = \lambda_2 \)
   - (B) Raman shifting is a non-elastic scattering with \( \lambda_1 < \lambda_2 \)
   - (C) Raman shifting is a non-elastic scattering with \( \lambda_1 > \lambda_2 \)

   **Answer:** (C) Raman shifting is a non-elastic scattering with \( \lambda_1 > \lambda_2 \)

5. A light-emitting diode, mounted high and southeast light has a wavelength of \( \lambda_1 \) and \( \lambda_2 \) respectively. Choose the correct option:
   - (A) Raman shifting is a non-elastic scattering with \( \lambda_1 = \lambda_2 \)
   - (B) Raman shifting is a non-elastic scattering with \( \lambda_1 < \lambda_2 \)
   - (C) Raman shifting is a non-elastic scattering with \( \lambda_1 > \lambda_2 \)

   **Answer:** (B) Raman shifting is a non-elastic scattering with \( \lambda_1 < \lambda_2 \)

6. A light-emitting diode, mounted high and southeast light has a wavelength of \( \lambda_1 \) and \( \lambda_2 \) respectively. Choose the correct option:
   - (A) Raman shifting is a non-elastic scattering with \( \lambda_1 = \lambda_2 \)
   - (B) Raman shifting is a non-elastic scattering with \( \lambda_1 < \lambda_2 \)
   - (C) Raman shifting is a non-elastic scattering with \( \lambda_1 > \lambda_2 \)

   **Answer:** (C) Raman shifting is a non-elastic scattering with \( \lambda_1 > \lambda_2 \)

7. A light-emitting diode, mounted high and southeast light has a wavelength of \( \lambda_1 \) and \( \lambda_2 \) respectively. Choose the correct option:
   - (A) Raman shifting is a non-elastic scattering with \( \lambda_1 = \lambda_2 \)
   - (B) Raman shifting is a non-elastic scattering with \( \lambda_1 < \lambda_2 \)
   - (C) Raman shifting is a non-elastic scattering with \( \lambda_1 > \lambda_2 \)

   **Answer:** (C) Raman shifting is a non-elastic scattering with \( \lambda_1 > \lambda_2 \)

8. A light-emitting diode, mounted high and southeast light has a wavelength of \( \lambda_1 \) and \( \lambda_2 \) respectively. Choose the correct option:
   - (A) Raman shifting is a non-elastic scattering with \( \lambda_1 = \lambda_2 \)
   - (B) Raman shifting is a non-elastic scattering with \( \lambda_1 < \lambda_2 \)
   - (C) Raman shifting is a non-elastic scattering with \( \lambda_1 > \lambda_2 \)

   **Answer:** (B) Raman shifting is a non-elastic scattering with \( \lambda_1 < \lambda_2 \)