A. For each statement below five answers are given. Write the letter in front of the correct answer in the blank space provided.

____1. An inclined plane may be used to place a barrel in a truck because it: (a) provides a mechanical advantage. (b) prevents the truck from moving (c) provides the only means of lifting something (d) is smaller than the barrel (e) will not break.

____2. A force is: (f) always reversed (g) always very great (h) always very small (i) a push or a pull (j) always moving.

____3. Temperature is: (a) the amount of heat a body contains, (b) a device for measuring heat (c) a thermometer (d) the degree of hotness of a body (e) the number of calories a body holds.

____4. A body is in equilibrium when: (f) its speed is changing (g) the body is slowing down (h) the sum of all the forces acting on the body is zero (i) it is not rotating (j) it is vibrating.

____5. The power absorbed by an electric circuit may be shown to be equal to: (a) current times resistance (b) voltage times current (c) voltage divided by current (d) current times the square of resistance (e) voltage divided by resistance.

____6. Osmotic pressure is produced when: (f) a solution is in contact with the pure solvent through a semi-permeable membrane (g) a liquid is placed in a tall jar (h) a solution is placed in a short jar (i) a solution is very dense (j) a solution is very thin.

____7. When a girl sings with a high pitched voice the sound wave produced has: (a) a low frequency (b) a high frequency (c) a frequency between low and high (d) a low intensity (e) a high intensity.

____8. The sum of two non-parallel forces acting on a body may be found by (f) arithmetical addition (g) taking the product of the two forces (h) constructing a parallelogram using the forces as sides and drawing the concurrent diagonal (i) measuring the forces alternately (j) measuring the speed of the body.

____9. Given two strings, one cm. long, the other 45 cm. long, made of the same material and stretched with equal forces (a) the longer string will vibrate longer (b) the shorter string will vibrate longer (c) the longer string will break quicker (d) the shorter string will break quicker (e) the longer string will vibrate with the lower frequency.

____10. Light rays traveling in a transparent medium always travel (f) very slow (g) with a circular motion (h) in longitudinal waves (i) vertically (j) in straight lines.