

London Collegiate Institute.

WEEKLY EXAMINATIONS.

PHYSICS.

FORMS I., II. AND III.

1. Describe clearly the conditions affecting the pitch of sound, with an experiment to prove the effect of each condition.
2. (a) Under what circumstances will an echo be heard at the point at which the sound is produced? (b) Distinguish clearly between echoes and resonance.
3. (a) Show by a diagram what is meant by the interruption of sound waves, and how the effect is produced. (b) Distinguish noise from music.
4. (a) Show why an image is formed when light passes through a small aperture. (b) Show by diagram the nature and position of images produced by plane mirrors.
5. (a) Under what circumstances are inverted images produced by concave mirrors? Prove your answer by diagrams. (b) Draw to the eye the rays showing to a person his image, when he is close to a concave mirror.
6. (a) State and describe experiments to prove the laws of refraction of light. (b) Explain, with aid of diagram, the difference between the real and the apparent depth of water, viewed obliquely. (c) Explain with diagram the structure of the compound microscope.