Articles you can write on your site

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OPTICS:
1. Explain optics of lens with one surface polished
2. Refraction at spherical surfaces and sign conventions.

Heat:
1. When can we apply ideal gas equation? When it is not valid?
2. What is CP and CV and their use in work calculations. Explain degrees of freedom for different type of molecules.

MECHANICS:
1. When and about which point we can / cannot apply conservation of momentum.
2. When can we apply energy conservation? When it is not applicable? It can be applied for rolling friction case but not for sliding friction.
3. Discussion of some problems on variable mass system.
4. Calculate moment of inertia of some regular shapes
5. Rolling and slipping of a wheel on an incline.
6. Non-inertial frames and solving problems in them. Use Free Body Diagrams to explain.
7. Discussion of friction force(mu-s and mu-k) and its direction in rectilinear and rotation motion.

HYDRO-STATICS and DYNAMICS:
1. Explain Archimedes principle with examples.
2. Explain Bernoulli's equation and continuity equation. When these can be used?

Waves:
1. Doppler's effect, sign convention and its use when reflection occurs.
2. Physics of standing waves, nodes and antinodes.
3. Interference of Young's double slit, how it changes if we place a mica sheet in front of one slit/ place a lens in front of one slit and some variations.

Electricity:
1. How to identify the capacitors / resistors in series and parallel?
2. How to apply Kirchoof's law - Capacitors / Resistors?
3. Calculate Electric Field and potential of some regular shapes.(With and without Gauss Law)

Magnetism:
1. How to find the direction of magnetic force on a moving charge or a current carrying conductor?
2. Explain electromagnetic induction and solve some IIT problems.

AC Circuits:
1. Discuss LCR circuits and ways of solving them. Charging and discharging time calculations.

SHM and Circular Motion:
1. How to prove a motion is simple harmonic? Some sample problems.
2. Physics of Springs
3. Motion in a vertical plane - non-uniform circular motion

Gravitation:
1. How to apply conservation of energy in presence of a potential barrier? Solve a problem.

Modern Physics:

1. Bohr's formulae for radius, energy etc for Hydrogen like atom with atomic number Z != 1. Derive some general expressions.

You can search below physics books at archive.org to give a link on your site: