

Final test (exam 2 semester)

1. Law of dynamics (Newton's law 2)
2. Gravity force
3. Hook's law
4. Kinetic friction
5. Angular velocity
6. Stokes' law
7. Kinetic energy
8. Potential energy
9. Power
10. Momentum
11. Pressure
12. Ideal gas law
13. Angular acceleration
14. Torque
15. Momentum of inertia of a point particle
16. Rotational kinetic energy
17. Density
18. Archimedes' principle (buoyant force)
19. Conservation of flow (law)
20. Liquid pressure (in liquid columns)
21. Poiseuille's law
22. Reynolds number
23. Bernoulli's principle
24. First law of thermodynamics
25. Specific heat capacity
26. Efficiency of heat engine
27. Efficiency of Carnot engine
28. Height to which capillary action will lift liquid
29. Gravitation force
30. Coulomb's law
31. Magnitude of electric field of a point charge
32. Gauss's law (electric flux and charge)
33. Electric potential energy of two point charges
34. Work of constant electric field
35. Work of Coulomb forces
36. Capacitance
37. Capacitance of parallel plate capacitor
38. Energy stored in capacitor
39. Ohm's law
40. Relationship between resistance and resistivity
41. DC electric power
42. Lorentz force law
43. Biot-Savart law
44. Magnetic field strength and magnetic induction
45. Faraday's law
46. Lenz's law
47. Solenoid field
48. Sound intensity from point source
49. Sound speed in ideal gas
50. Doppler effect
51. Snell's law
52. Index of refraction
53. Lens power
54. Thin lens equation
55. Condition for maximum of interference on two slits
56. Energy of photon

Example of answer:

acceleration

$$a = \frac{v_f - v_i}{\Delta t}$$

a is acceleration [$\text{m}\cdot\text{s}^{-2}$]

v_f is final speed [$\text{m}\cdot\text{s}^{-1}$]

v_i is initial speed [$\text{m}\cdot\text{s}^{-1}$]

Δt is time interval [s]