PHYSICS Exam Paper

Subjective Questions

1. Explain Newton's laws of motion and provide real-life examples for each.

2. Describe the process of nuclear fission and how it differs from nuclear fusion.

3. What is the concept of work and energy in physics? Explain with examples.

4. Explain the law of conservation of momentum with an example.

5. Describe the structure and properties of an atom according to the Bohr model.

6. What is the principle of superposition of waves?

7. Explain the phenomenon of diffraction of light with an example.

8. Discuss the concept of entropy and its significance in thermodynamics.

9. How does the Doppler effect apply to sound and light waves?

10. Describe the working of an electric motor and explain the factors affecting its efficiency.

MCQ Questions

11. What is the unit of force?
    A: Kilogram B: Meter C: Newton D: Joule

12. Who is known as the father of modern physics?
    A: Isaac Newton B: Albert Einstein C: Nikola Tesla D: Galileo Galilei

13. What is the speed of light?
    A: 3 x 10^8 m/s B: 1 x 10^8 m/s C: 5 x 10^8 m/s D: 2.99 x 10^8 m/s

14. What is the formula for kinetic energy?
    A: KE = mv^2 B: KE = 1/2 mv^2 C: KE = 1/2 m^2v D: KE = mv

15. Which law states that for every action, there is an equal and opposite reaction?
    A: Newton’s 1st Law B: Newton’s 2nd Law C: Newton’s 3rd Law D: Law of Inertia