

OBJECTIVE I

- Sol 1.** B
Electromagnetic force.
- Sol 2.** D
Electromagnetic force > Gravitational force > Nuclear force
- Sol 3.** D
Force is a vector quantity is also depend upon direction.
- Sol 4.** Due to action reaction pair they will be equal in magnitude.

OBJECTIVE II

Sol 1. AC

Neutron is an uncharged particle. Neutron not exerts electromagnetic force on a proton. Only exerts gravitational and nuclear force on a proton.

Sol 2. ABC

Proton is a charges particle, it can exerts gravitational, electromagnetic & nuclear force on a proton.

Sol 3. BCD

Nuclear force is much stranger than the coulomb force when distance between the two particles is less than 10^{-14} m. So we can say gravitational force & electromagnetic force between two protons may be greater than the nuclear force acting between them.

Sol 4. ABC

Earth move around the sun due to Gravitational force.

Sol 5. AB

In the classical physics described the Newton's Laws of Motion, Newton's Law of gravitation, Maxwell's electro-magnetism, Laws of thermodynamics and the Lorentz force.

The formulation of classical physics is quite accurate for heavenly bodies like the sun, the earth, the moon etc.

For particle much smaller than 10^{-6} m (such as atoms, nuclei etc.) these rules do not work well.

Sol 6. AD

In case of tension (expansion)

P The right end is displaced towards right and the left end towards left.

In case of compression

P The right end is displaced towards left and the left end towards right.

Sol 7. ABCD