Saitechinfo NEET-JEE Academy

1. **Alpha-particle** - A positively charged particle consisting of two protons and two neutrons, emitted from certain radioactive nuclei.
2. **Cross-section** - A measure of the probability of a nuclear reaction occurring, often expressed in barns.
3. **Half-life** - The time required for half of the nuclei in a sample of a radioactive substance to undergo decay.
4. **High-energy** - Relating to particles or radiation with a high level of kinetic energy, such as gamma rays or fast-moving particles.
5. **Isotope-mixing** - The process of combining isotopes to achieve a desired nuclear reaction or property.
6. **Neutron-capture** - A nuclear reaction where a neutron is absorbed by a nucleus.
7. **Chain-reaction** - A sequence of nuclear fissions where the products of each reaction initiate further reactions.
8. **Mass-defect** - The difference between the mass of an atomic nucleus and the sum of its individual nucleons.
9. **Photo-electric** - Relating to the emission of electrons when light shines on a material.
10. **Radio-active** - Referring to substances that emit radiation as they decay.
11. **Gamma-ray** - High-energy electromagnetic radiation emitted from nuclear reactions.
12. **Fusion-power** - The power produced by nuclear fusion reactions.
13. **Binding-energy** - The energy required to split a nucleus into its constituent protons and neutrons.
14. **Decay-constant** - A constant that describes the rate of radioactive decay.
15. **Energy-transfer** - The process of transferring energy from one particle to another.
16. **Thermal-neutron** - A neutron with low kinetic energy, moving at speeds similar to particles at room temperature.
17. **Critical-mass** - The minimum amount of fissile material needed to sustain a nuclear chain reaction.
18. **Controlled-fusion** - Fusion reactions that are managed to release energy in a controlled manner.
19. **Electron-capture** - A process in which an inner atomic electron is captured by the nucleus.
20. **Neutron-emission** - The release of neutrons from a nucleus during certain types of nuclear reactions.
21. **Power-generation** - The production of energy, especially from nuclear sources.
22. **Fast-breeder** - A type of nuclear reactor that creates more fissile material than it consumes.
23. **Self-sustaining** - A reaction or process that continues on its own once initiated.
24. **Heavy-water** - Water containing a higher proportion of the deuterium isotope, used in certain types of nuclear reactors.
25. **Low-level** - Pertaining to radiation or waste with low radioactivity.
26. **Nuclear-fuel** - Material used to produce energy in nuclear reactors.

27. **Beta-decay** - A type of radioactive decay involving the emission of a beta particle.
28. **Super-heavy** - Referring to elements or isotopes with a very high atomic number.
29. **Particle-accelerator** - A device that increases the kinetic energy of charged particles.
30. **Radiation-shield** - A barrier used to protect from harmful radiation.