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Class 12 Biology

Chapter-wise One-Liner Notes

A free study resource by **Toppers Hub Academy**

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Reproduction

- Double fertilisation is unique to angiosperms (flowering plants).
- In humans, fertilisation occurs in the fallopian tube.
- The placenta connects the developing foetus to the mother.
- Gametogenesis forms gametes: spermatogenesis and oogenesis.

Genetics & Evolution

- Mendel's laws: dominance, segregation and independent assortment.
- DNA replication is semi-conservative.
- Central dogma: DNA → RNA → protein.
- Natural selection drives evolution (Darwin).

Biology & Human Welfare + Biotechnology

- Pathogens cause diseases; vaccines provide active immunity.
- PCR amplifies DNA using primers and Taq polymerase.
- Restriction enzymes are molecular scissors used in genetic engineering.
- Plasmids act as vectors to carry recombinant DNA.

Ecology

- The 10% law: only about 10% of energy transfers between trophic levels.
- Ecological pyramids show numbers, biomass or energy.
- Biodiversity hotspots have high species richness and endemism.
- The nitrogen and carbon cycles recycle nutrients in ecosystems.

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