Respiratory System

These notes are your ultimate revision weapon to revise Respiratory System. We've distilled years of previous exam questions (PYQs) into one powerful, concise resource. Everything you need to know, nothing you don't.

- PYQs, Decoded: All key concepts from past exams, organized and simplified.
- Revise in Record Time: Short, precise, and designed for last-minute review.
- Focus on What Matters: Master high-probability topics and boost your confidence.

Respiratory Organs & Gas Exchange

- Primary Organ in Mammals:
 - Mammals respire using lungs.
- Site of Gas Exchange:
 - In the lungs, gaseous exchange (oxygen and carbon dioxide) occurs in the tiny air sacs called alveoli.
- Sequence of Oxygen Transport:
 - The correct sequence of oxygen transportation in the human body is: Lungs → Blood → Tissues.

Process of Respiration

- Definition:
 - Aerobic respiration is the complete conversion of glucose into carbon dioxide and water in the presence of oxygen, releasing energy.
- Regulation of Breathing:
 - When the concentration of oxygen in the blood decreases, the breathing rate increases to compensate.

Composition of Air:

 During the process of respiration, the proportion of nitrogen in the air does not change.

Energy Production in Respiration

• Energy Currency:

 The energy produced during respiration is in the form of ATP (Adenosine Triphosphate).

• Key Energy-Releasing Reaction:

 The conversion of ATP to ADP is the biotransformation that provides maximum energy to the body.

Hazards & Homeostasis

- Effect of Carbon Monoxide:
 - Carbon monoxide poisoning primarily affects the oxygen-carrying capacity of the blood.
- Body Temperature Regulation:
 - The liver plays a key role in maintaining the body's temperature.

Know More About Respiratory System:

- Respiratory System Old Year Questions
- Respiratory System One Liner Questions & Answers