

Life Processes

Quick Study Guide

HOW TO USE THIS GUIDE

HIGHLIGHTED TEXT SHOWS IMPORTANT POINTS

★ MARKS HIGH-FOCUS TOPICS

📝 INDICATES EXAM TIPS

⚠️ SHOWS COMMON ERRORS

💡 GIVES QUICK TIPS

NUTRITION TYPES

Mnemonic: "DABBA PARTY"

D Daily food needed
A Autotrophs (plants)
B Both types exist
B Bacteria some auto
A Animals heterotroph

Remember As:

- Autotrophs = Self food makers (plants)
* Like "Ghar ka khana"
- Heterotrophs = Food takers (animals)
* Like "Bahar ka khana"
- Saprotrophs = Dead matter eaters
* Like "Kharab khana"

P Plants make food
A Animals eat food
R Raw materials need
T Take in nutrients
Y Yield energy

Common Errors:

- Mixing auto/hetero examples
- Forgetting parasites
- Missing saprophytes
- Incomplete process steps

PHOTOSYNTHESIS

Mnemonic: "ROTI BANAO"

R Raw materials (CO_2 , H_2O)
O Oxygen releases
T Temperature matters
I In chloroplasts

B Bring sunlight
A Absorb CO_2
N Need chlorophyll
A Add water
O Output glucose

Equation Trick

Chhaand Hui Oxygen
 $6\text{CO}_2 + 6\text{H}_2\text{O} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2$

- C: Carbon dioxide (6)
- H: H_2O (6)
- O: Oxygen nikalta hai

Daily Connect:

- Like cooking roti:
* Gas (CO_2) + Water (H_2O)
* Heat (Sunlight)
* Green tawa (Chlorophyll)
* Makes food (Glucose)

HUMAN DIGESTION

Mnemonic: "KHAANA TIME"

K Khana enters mouth
H HCl in stomach
A Amylase in saliva
A Absorption in intestine
N Nutrients extracted
A Assimilation happens

T Teeth crushing
I Intestine absorption
M Movement (peristalsis)
E Enzymes working

Enzymes Chart:

PAST PAPER

- *P*: Pepsin (proteins)
- *A*: Amylase (starch)
- *S*: Saliva enzymes
- *T*: Trypsin (proteins)
- *P*: Pancreatic juice
- *A*: Absorption
- *P*: Peptides form
- *E*: Energy release
- *R*: Remaining waste

RESPIRATION PROCESS

Mnemonic: "SAANS LELO"

S Preparation reactions
A Addition reactions
A Replacement happens
N Temperature effect
S Yield products

L Substitution type
E Combustion complete
L Elimination occurs
O Neutralization

Must Learn Reactions:

AMBULANCE 108

1. Air enters nose
2. Moves through bronchi
3. Bronchioles branch
4. Into alveoli
5. Lungs expand
6. Absorb oxygen
7. Narrow tubes
8. Carbon dioxide exits
9. Exchange complete

TRANSPORTATION

Mnemonic: "BLOOD BANK"

B Blood vessels
L Lymph system
O Oxygen carrier
O Only one direction
D Double circulation

B Body parts supply
A Arteries away
N Nutrients carry
K Keep flowing

Heart Working:

DHADKAN

- *D*: Deoxygenated right side
- *H*: Heart pumps blood
- *A*: Arteries carry away
- *D*: Double pump system
- *K*: Keep circulating
- *A*: Atria receive
- *N*: Nutrients transport

EXCRETION

Mnemonic: "KIDNEY BOSS"

K Keep filtering
I Important organ
D Drop waste
N Nephrons work
E Excrete urea
Y Yellow urine

B Blood cleaning
O Osmoregulation
S Salt balance
S Sweat glands help

Filtration Steps:

UBER RIDE

- *U*: Urea formed
- *B*: Blood filtered
- *E*: Extra water out
- *R*: Reabsorption
- *A*: Retain goods
- *I*: Ion balance
- *D*: Drop wastes
- *E*: Exit system



PRACTICAL ACTIVITIES

Mnemonic: "LAB HERO"

- L Look at setup
 - A Add chemicals
 - B Boil leaves
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- H Heat properly
 - E Examine results
 - R Record changes
 - O Observe carefully

Important Tests:

1. Starch in leaves:
 - * Boil leaf in alcohol
 - * Add iodine → Blue-black
2. CO_2 for photosynthesis:
 - * KOH absorbs CO_2
 - * Plant wilts without CO_2

QUICK REVISION CHECKLIST

Before Exam:

- ✓ All processes flow
- ✓ Important diagrams
- ✓ Enzymes and functions
- ✓ Transport system
- ✓ Excretion pathway
- ✓ Practical tests

Scoring Tips:

1. Draw labeled diagrams
2. Show process steps
3. Give examples
4. Write proper reactions
5. Include real-life connections

100%

HIGH FOCUS AREAS

1. Nutrition & Photosynthesis (5 marks)
2. Human Digestion (5 marks)
3. Respiration (4 marks)
4. Transport System (4 marks)
5. Practical based (4 marks)

