

## ⑪ ~~#~~ Zoology section

# Human biology - 4 mcqs - 1 long - 1 short

### ① Digestive system

- Alimentary canal parts (with fig related)
- Digestive glands (read briefly)
- Physiology of digestion (impo)

### ② Circulatory system

- origin and conduction of heart beat
- arterial and venous system } most impo

### ③ Excretory system

- Excretory organs (structure of nephron with fig)
- Urine formation

(Both are most impo questions)

### ④ Nervous system

- Read briefly
- ↳ structure and functions of brain
- If you have ~~concept~~ <sup>Notes</sup> of class 10 - read it.

### ⑤ Sense organs

- working of human ear (impo)
- ~~the~~ internal structure (briefly)

### ⑥ Human population

= (one short questions) - 4 marks

- Differences between J-shaped curve and S-shaped curve
- Control measures
- Reason giving / justify it / related questions.

## ⑦ Application of zoology (Applied Biology)

- (2 short qs or 1 long qs and 1 mcq)

- IVF (process/stages)
- Amniocentesis (process)
- Fish Farming (Types of pond, Breeding technique)

## Botany Section

- 1) Plant anatomy → Contains 5 marks (1 short - 1 mcq)  
- ~~xylem and phloem (differences)~~  
- Anatomy of dicot stem (most impo)  
- focus on figures (questions might be asked from fig)  
- ~~others are~~
- 2) Plant physiology → 11 marks - one long qs or 2 short qs and 3 mcqs  
- mechanism of photosynthesis (photochemical phase - most impo)  
- mechanism of respiration (most impo - glycolysis and kreb cycle)  
- plant hormones (auxin, gibberellins and cytokinins)
- 3) Genetics → 12 marks  
(my guess - one long - one short)  
- DNA replication  
- structure of DNA  
- coloured blindness in man and eye colour of *Drosophila* (one qs fixed)  
- mutation (Gene and Chromosomal mutation)
- 4) Embryology → 5 marks - 1 short - 1 mcq  
- Development of monocot and dicot embryos  
- Vegetative propagation and its advantages  
- Differences between:-  
- self and cross pollination  
- asexual and sexual rep.
- 5) Biotechnology → 4 marks - 1 short  
- Green manure and bio fertilizers  
- plant tissue culture  
- Food security (challenges and control measures)  
- Scopes of biomedical engineering in nepal

→ Fish farming in Nepal

→ Types of organ transplantation

most impo

→ focus on Tuberculosis, Typhoid, Hepatitis  
(causative agent, mode of transmission, diagnosis, symptoms and preventive measures)

8) Animal Tissue = (5 marks - 1 short - 1 mcq)

→ Epithelial tissue (imp)

→ ~~Important~~ Differences between adipose and areolar tissue

9) Developmental Biology = (4 marks - 1 short - 3 mcq)

→ This unit contains 4 marks - 1 short (9s)

→ (Focus on Gametogenesis, blastulation, gastrulation)

→ See All the differences between

- Axon and dendrites

- Voluntary and involuntary muscles

- Cartilage and Bone