

Topics for the Oral Interview of the Master's Program in Molecular Biology

BIOCHEMISTRY

1. The structure and function of nucleic acids (DNA and RNA).
2. The structure, classification, and function of proteins.
3. Enzymes as biological catalysts.

GENETICS

4. The process of inheritance, DNA replication.
5. Genetic engineering, cloning, PCR, genome programs.
6. Principles of plant and animal breeding.

CELL BIOLOGY

7. The structure of animal and plant cells, cell organelles.
8. Transport processes, the structure and role of the cell membrane.
9. The mechanism of gene expression, transcription, and translation.

PHYSIOLOGY

10. The physiology of respiration and circulation.
11. Nutrition, digestion, and excretion.
12. Neural and hormonal regulation.