

Topics of oral entrance exams from Forest Ecology

1) Description of the basic terms:

General Ecology, Forest Ecology, Autecology, Synecology, Biosphere, Biocenosis, Ecosystem, Biotope, Ecotone, Eco-cline, Resilience, Resistance, Ecological Succession (exogenous, endogenous), Climax, Description of structure and function of ecosystems, Food Chain or Food Web, Biomes in the world.

2) Forest Ecosystem:

- a) Forest ecosystem structure (species, functional, spatial).
- b) Forest ecosystem functions.
- c) Dynamics of natural forests (developmental cycles of natural forests).
- d) Forest distribution in the world (main forest associations in the world and their characteristics).

3) Primary production

- a) Biomass, primary producers, biosynthesis (photosynthesis), chemosynthesis, Gross primary production, nett primary production.
- b) The abiotic factors of primary production (The composition of atmosphere, Light as a production factor, Heat as a production factor, Water as a production factor, State of soils as a production factor).

4) The Forests and its abiotic components of environment

- a) The atmosphere (solar radiation, temperature, air humidity, and airflow).
- b) The water (liquid phase, solid phase, gaseous phase).
- c) The soil (functions, pedogenic factors, interaction soil - tree species).
- d) Big and small cycle of substance circulation in nature.

5) Nutrient cycling

- a) Geochemical cycles,
- b) Biogeochemical cycles
- c) Carbon cycle
- d) Nitrogen cycle

6) Functions of forest ecosystems

- a) Production forest functions.
- b) Ecological and environmental forest functions.