Veterinary botany exam topics, 2026

List of lecture topics (A)

1. Importance of botanical disciplines
2. Morphology and main modifications of plant organs
3. Specific organelles of plant cells
4. The main plant tissues: nutritive value and digestibility
5. Plant mineral nutrition: clinical signs of nutrient/mineral deficiencies in plants. Mineral deficiencies in animals.
6. The most important pathways of primary metabolism: the role of plants, fungi and bacteria in the biosphere (their relationships with animals)
7. Photosynthesis and cellular respiration (their roles in plant metabolism)
8. Plant secondary metabolites: the roles of carbohydrates and phenoloids
9. Plant secondary metabolites: the roles of polyketides and terpenoids
10. The main groups of nitrogen-containing compounds
11. Biosynthetic classification of antinutritive compounds in forages
12. Cryptogams (flowerless plants), gymnosperms, and monocots: morphological characteristics and veterinary importance
13. Dicot taxa: morphological characteristics and veterinary importance
14. The main grassland types: formation, global and European distribution
15. Mycotoxicosis: poisoning of humans and animals by microfungi
16. Mycetisms: mushroom poisonings in humans
17. Toxins of anthropogenic origin in the biosphere: effects, mechanism of action, consideration of food safety from soil microbes to humans

List of seminar topics (B)

1. Importance of cereals in animal nutrition
2. Importance of pulse crops in animal nutrition
3. Importance of oil-producing plants in animal nutrition
4. Importance of forage legumes in animal nutrition
5. Importance of fleshy forages in animal nutrition
6. Poisonous plants affecting the cardiac muscle: mechanism of action, effects, clinical signs
7. Poisonous plants with alkaloids promoting CNS symptoms: mechanism of action, effects, clinical signs
8. Poisonous plants with terpenoids or thiaminase enzymes promoting CNS symptoms: mechanism of action, effects, clinical signs
9. Poisonous plants causing photosensitization, liver damage, and cytotoxicity: mechanism of action, effects, clinical signs
10. Poisonous plants accumulating nitrate ions and producing HCN: mechanism of action, effects, clinical signs
11. Poisonous plants affecting the digestive tract, producing oxalic acid, and forming oxalate crystals: mechanism of action, effects, clinical signs
12. Poisonous plants promoting cancer or interfering with the clotting of blood: mechanism of action, effects, clinical signs
13. Importance of medicinal plants in veterinary medicine: benefits, fields of application, limitations
14. Importance of grazing and hay in animal nutrition: veterinarian aspects
15. Botanical hay and rumen content analysis