

**QUESTIONNAIRE FOR THE STATE EXAM /PRACTICAL/ ON  
THE 1<sup>ST</sup> GROUP OF DISCIPLINES  
/ OBSTETRICS, REPRODUCTION AND REPRODUCTIVE DISORDES;  
INTERNAL DISEASES WITH TOXICOLOGY;  
SURGERY, ANESTHESIOLOGY AND RADIOLOGY /  
2024/2025**

**PART I. OBSTETRICS, REPRODUCTION AND REPRODUCTIVE  
DISORDES**

1. Sex hormones in female and male animals. Hormonal drugs and their action.
2. Ovulation and fertilization.
3. Oestrous cycle characteristics in farm animals
4. Intensification of reproduction in ruminants and pigs.
5. Methods for semen collection, evaluation, processing and storage in animals.
6. Methods for oestrus detection and determining the optimal time for insemination in ruminants and pigs.
7. Methods for determination of optimal time for insemination of the bitch.
8. Artificial insemination of large and small ruminants - methods for deposition of fresh and cryopreserved semen, techniques, doses and insemination number.
9. Clinical methods for pregnancy diagnosis in animals.
10. Laboratory methods for pregnancy diagnosis - classification and practical application in different animals.
11. Diseases of the mother during pregnancy - diagnosis, treatment and prevention. Fetal pathology and placental abnormalities.
12. Abortions in animals - etiology, clinical signs, therapy and prevention.
13. Contraception in dogs and cats.
14. Normal parturition. Periods and stages of birth. Factors determining the onset of labor.
15. Difficult parturition (dystocia). Causes (etiology) and clinical forms of dystocia.
16. Approach to an obstetrical case. Indications and application of methods for providing obstetric care to animals. Management of birth in animals and care of the postpartum dam.
17. Obstetric care in cases of fetopelvic disproportion, anomalies in the soft birth canal, fetal malpresentation and fetal abnormalities.
18. Prevention of dystocia in animals.
19. Obstetric care in multifetal animals - medical, forceps birth, radical and conservative cesarean section.

20. Postpartum inflammation of the external genital organs - etiology, clinical forms, therapy and prevention.
21. Generalized postpartum infection.
22. Retention of the placenta.
23. Dislocation and prolapse of the vagina and eversion and prolapse of the uterus.
24. Postpartum paresis. Postpartum recumbency.
25. Inflammation of the uterus in large ruminants - clinical forms, diagnosis, therapy and prevention.
26. Ovarian cysts - - Clinical forms, therapy and prevention
27. Persistent corpus luteum.
28. Ovulatory defects.
29. Clinical forms of infertility in female animals. Measurement of reproductive performance.
30. Infertility in male animals - coital impotence and sterility.
31. Functional disorders of the mammary gland.
32. Diseases of the skin of the udder.
33. Contusions and wounds of the mammary gland. Narrowing and blockage of teat canal and cistern.
34. Inflammation of the mammary gland (mastitis) - definition, etiology, pathogenesis and classification.
35. Clinical and laboratory diagnosis of mastitis.
36. Therapy of mastitis in productive animals - clinical mastitis and subclinical mastitis.
37. Prevention of mastitis in animals.
38. Inflammatory processes of the uterus in equids - clinical forms, diagnosis, therapy and prevention.
39. Diseases of the genital organs in in dogs and cats - clinical forms, diagnosis, therapy and prevention.
40. Vitality assessment and most important diseases in newborn animals.

## **PART II. INTERNAL DISEASES WITH TOXICOLOGY**

1. Diseases of the oral cavity and pharynx.
2. Diseases of the esophagus and throat.
3. Indigestion - classification. Rumen atony. Overfilling the rumen with food. Cold cow syndrome.
4. Rumen acidosis (grain overload in ruminants). Rumenal alkalosis.
5. Acute and chronic bloating of the rumen.

6. Omasal impaction (constipation of the omasum). Vagal indigestion syndrome in ruminants (Hoflund's syndrome).
7. Traumatic inflammation of the reticulum and peritoneum.
8. Diseases of the abomasum. Classification of the diseases of the abomasum. Impaction of the abomasum (dietary abomasal impaction). Displaced abomasum and abomasal volvulus.
9. Inflammation of the intestines and stomach. Stomach (Abomasal) ulceration.
10. Colic with full and partial patency - classification, etiology, clinical signs, methods of diagnosis and treatment.
11. Colic with complete obstruction - classification, etiology, clinical signs, methods of diagnosis and treatment.
12. Diseases of the liver and gallbladder.
13. Peritonitis. Ascites.
14. Diseases of the myocardium, endocardium and pericardium. Traumatic pericarditis.
15. Cardiac and vascular failure. Dilated cardiomyopathy
16. Mitral valve diseases - dog.
17. Inflammation of the upper respiratory tract.
18. Inflammation of the bronchi. Pulmonary edema.
19. Pneumonia - types, etiopathogenesis, clinical signs, differential diagnosis and treatment.
20. Chronic obstructive pulmonary disease. Inflammation of the pleura.
21. Kidney and renal pelvic diseases - etiology, pathogenesis, differential diagnosis and treatment.
22. Acute and chronic renal failure.
23. Bladder diseases. Urolithiasis. Uremia.
24. Skin diseases.
25. Inflammation of the brain and spinal cord.
26. Inflammation of the facial and vestibulocochlear nerve (auditory vestibular nerve).
27. Diabetes. Pancreatitis.
28. Osteopathies - classification, etiopathogenesis, clinical signs and treatment. Hypophosphataemia in cattle.
29. Hypomagnesaemia (hypomagnesium tetanies).
30. Trace element deficiencies – zinc, iron, manganese and selenium.
31. Trace element deficiencies – copper (Enzootic neonatal ataxia (swayback) in lambs and kids), manganese and cobalt.
32. Avitaminosis of group B and PP. Necrosis cerebrocorticalis (Polyencephomatia).
33. Avitaminosis A, D, C and E.
34. Cannibalism in pigs and birds. Pika (Allotriophagia, Parorexia) in ruminants.

35. Ketosis. Fatty Liver Disease.
36. Postparturient hemoglobinuria. Rhabdomyolysis in horses.
37. Mycotoxicosis.
38. Poisoning with organophosphorus pesticides and sodium chloride.
39. Heavy metal poisoning (copper, lead, phosphorus and fluorine).
40. Nitrate and nitrite poisoning.
41. Poisoning with plants containing cyanoglycosides and photodynamic compounds.
42. Poisoning with ethylene-glycol.

### **PART III. SURGERY, ANESTHESIOLOGY AND RADIOLOGY**

1. Wounds – classification, wound process biology, treatment of wounds according to healing phase.
2. Closed mechanical injuries – classification, clinical signs and treatment.
3. Purulent surgical infection – abscess, phlegmon, sepsis.
4. Anaerobic and putrid surgical infection.
5. Specific surgical infections in animals.
6. Joint diseases – classification, clinical signs, treatment.
7. Traumatic diseases of bones. Classification, main principles and methods of treatment.
8. Inflammatory diseases of bones – classification, clinical signs, radiological diagnosis and treatment.
9. Bursitides in small and large animals.
10. Diseases of tendons and tendon sheaths in small and large animals.
11. Haemorrhages – types and main features. Haemostasis – spontaneous and artificial.
12. Immunological and technical principles of blood transfusion.
13. Fluid therapy.
14. Inhalational anaesthesia.
15. Intravenous anaesthesia.
16. Local anaesthesia. Types of local anaesthesia.
17. Cardiopulmonary resuscitation.
18. Monitoring of critically ill patients.
19. Surgical diseases of the penis, preputium and testes – diagnosis and treatment
20. Castration and post castration complications in male and female animals.
21. Diseases of the eyelids and the conjunctiva.
22. Diseases of the cornea.
23. Diseases of the uveal tract and the retina.

24. Cataract and glaucoma.
25. Ear diseases in small animals.
26. Surgical diseases of the oral cavity, the tongue and the salivary glands.
27. Tooth development and position abnormalities – clinical forms and treatment.
28. Diseases of teeth in carnivores and horses – classification, clinical signs and treatment.
29. Surgical diseases of the thoracic wall and thoracic organs.
30. Surgical diseases of the abdomen and abdominal organs in small animals
31. Surgical diseases of the abdomen and abdominal organs in horses and ruminants.
32. Surgical diseases of the urinary system.
33. Paralysis of nerves of thoracic and pelvic limbs.
34. Diseases of thoracic limb joints in small animals.
35. Diseases of hip joints in small animals.
36. Diseases of the stifle joint in small animals.
37. Equine hoof diseases – laminitis, navicular syndrome
38. Digital and interdigital dermatitis. Necrobacillosis. Erosion of heels.
39. Specific traumatic ulcer of the sole. Interdigital wart. Foot rot.
40. Surgical diseases of the brain and spinal cord in small animals.