**Questionnaire for the State Exam /Practical/ on**

**the 1st group of disciplines**

**/** **OBSTETRICS, GYNECOLOGY AND ANDROLOGY;**

**INTERNAL DISEASES WITH TOXICOLOGY;**

**SURGERY, ANESTHESIOLOGY AND RADIOLOGY /**

**2020/2021**

**Part І. OBSTETRICS, GYNECOLOGY AND ANDROLOGY**

1. Sex hormones in female and male animals. Hormonal drugs and their action.
2. Neuroendocrine regulation of the estrous cycle in female animals
3. Estrous cycle characteristics in productive animals
4. Synchronization of estrus and ovulation in cows and sheep.
5. Reproductive function of the ovaries. Ovulation and fertilization.
6. Methods for semen collection, evaluation, processing and storage in animals.
7. Methods for estrus detection and determining the optimal time for insemination in ruminants and pigs.
8. Methods for determination of optimal time for insemination of the bitch.
9. Artificial insemination of large and small ruminants - methods for deposition of fresh and cryopreserved semen, techniques, doses and insemination number.
10. Clinical methods for pregnancy diagnosis in animals.
11. Laboratory methods for pregnancy diagnosis - classification and practical application in different animals.
12. Diseases of the mother during pregnancy - diagnosis, treatment and prevention. Fetal pathology and placental abnormalities.
13. Abortions in animals - etiology, clinical signs, therapy and prevention.
14. Contraception in dogs and cats.
15. Normal parturition. Periods and stages of birth. Factors determining the onset of labor.
16. Difficult parturition (dystocia). Causes (etiology) and clinical forms of dystocia.
17. 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.
18. Obstetric care in cases of fetopelvic disproportion, anomalies in the soft birth canal, fetal malpresentation and fetal abnormalities.
19. Prevention of dystocia in animals.
20. Obstetric care in multifetal animals - medical, forceps birth, radical and conservative cesarean section.
21. Postpartum inflammation of the external genital organs - etiology, clinical forms, therapy and prevention.
22. Generalized postpartum infection.
23. Retention of the placenta.
24. Dislocation and prolapse of the vagina and eversion and prolapse of the uterus.
25. Postpartum paresis. Postpartum recumbency.
26. Inflammation of the uterus in large ruminants - clinical forms, diagnosis, therapy and prevention.
27. Ovarian cysts - - Clinical forms, therapy and prevention
28. Persistent corpus luteum.
29. Ovulatory defects.
30. Clinical forms of infertility in female animals. Measurement of reproductive performance.
31. Infertility in male animals - coital impotence and sterility.
32. Functional disorders of the mammary gland.
33. Diseases of the skin of the udder.
34. Contusions and wounds of the mammary gland. Narrowing and blockage of teat canal and cistern.
35. Inflammation of the mammary gland (mastitis) - definition, etiology, pathogenesis and classification.
36. Clinical and laboratory diagnosis of mastitis.
37. Therapy of mastitis in productive animals - clinical mastitis and subclinical mastitis.
38. Prevention of mastitis in animals.
39. Inflammatory processes of the uterus in equids - clinical forms, diagnosis, therapy and prevention.
40. Pyometra in dogs and cats - clinical forms, diagnosis, therapy and prevention.

**Part ІІ. INTERNAL DISEASES WITH TOXICOLOGY**

1. Diseases of the oral cavity and pharynx.
2. Diseases of the esophagus and throat.
3. Indigestion - classification. Abdominal atony. Constipation of the omasum. Hoflund's syndrome.
4. Acute and chronic tympani.
5. Traumatic reticuloperitonitis.
6. Diseases of the abomasum.
7. Inflammation of the intestines and stomach.
8. Colic with full and partial patency - classification, etiology, clinical signs, methods of diagnosis and treatment.
9. Colic with complete obstruction - classification, etiology, clinical signs, methods of diagnosis and treatment.
10. Diseases of the liver and gallbladder.
11. Peritonitis. Ascites.
12. Diseases of the myocardium, endocardium and pericardium.
13. Cardiac and vascular failure. Dilated cardiomyopathy.
14. Inflammation of the upper respiratory tract.
15. Inflammation of the bronchi. Pulmonary edema.
16. Pneumonia - types, etiopathogenesis, clinical signs, differential diagnosis and treatment.
17. Chronic obstructive pulmonary disease. Inflammation of the pleura.
18. Kidney and renal pelvic diseases - etiology, pathogenesis, differential diagnosis and treatment.
19. Acute and chronic renal failure.
20. Bladder diseases. Urolithiasis. Uremia.
21. Skin diseases.
22. Inflammation of the brain and spinal cord.
23. Epilepsy. Eclampsia. Cerebrocortical necrosis. Hereditary cerebellar ataxia.
24. Inflammation of the facial and vestibulocochlear nerve (auditory vestibular nerve).
25. Diabetes. Pancreatitis. Gout.
26. Osteopathies - classification, etiopathogenesis, clinical signs and treatment.
27. Tetany - classification, etiopathogenesis, clinical signs and treatment.
28. Trace element deficiencies – zinc, iron, manganese and selenium.
29. Trace element deficiencies – copper, manganese and cobalt.
30. Avitaminosis of group B and PP.
31. Avitaminosis A, D, C and E.
32. Cannibalism in pigs and birds. Depraved appetite in ruminants.
33. Ketosis and postpartum hepatic dystrophy in cows. Enzootic hepatic dystrophy in sheep.
34. Hemoglobinuria and vesicular hematuria in cattle. Rhabdomyolysis in horses.
35. Mycotoxicosis.
36. Poisoning with organophosphorus pesticides and sodium chloride.
37. Heavy metal poisoning (copper, lead, phosphorus and fluorine).
38. Nitrate and nitrite poisoning.
39. Poisoning with plants containing cyanoglycosides and photodynamic compounds.
40. Sugar and proteinotoxicosis.

**Part ІІІ. 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. Infectious bovine keratoconjunctivitis. Uveitis in dogs and horses.

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. Infectious hoof diseases in cattle, sheep and pigs.

39. Non-infectious hoof diseases in cattle, sheep and pigs.

40. Surgical diseases of the brain and spinal cord in small animals.