



THEMES FOR LICENSE EXAM AND BIBLIOGRAPHY
recommended for the License exam, the Session - June 2020,
for the
Evaluation of fundamental and specialized knowledge

WRITTEN TEST - Assessment of fundamental knowledge

I. ANATOMY

1. Lymph System.

The topography of the lymphatic nodes of head, neck, forelimb, thoracic and abdominal in ruminants.

2. The abdominal organs in animals.

Right and left lateral walls projection of the abdominal viscera in ruminants and horses

The splanchnic vasculo-nervous structures and their distribution

3. The hipogastric region in male.

Inguinal region and the testicular pouch

4. The autopodial skeleton, the muscles and structure supporting, the vessels and nerves of the forelimb and hindlimb in horses and ruminants

Bibliography:

1. Dyce M. K., Sack O.W., Wensing G.J.C., Textbook of Veterinary Anatomy. 3rd Ed. Sanders 2002 SUA.

2. König, H.E.& Liebich, H.G. (2004) Veterinary Anatomy of Domestic Mammals, Textbook and Colour Atlas, ISBN 3-7945-2101-3

3. Spataru, M.C. (2019) Veterinary Anatomy, Splanchnology of domestic animals, Ed. "Ion Ionescu de la Brad" din Iași, ISBN 978-973-147-349-9

II. PHYSIOLOGY

1. The Concept of a Reflex. Reflex and Rhythmic Motor Control

2. Autonomic Nervous System Physiology

3. Vestibular system

4. Erythrocytes

5. Ruminant Digestive Physiology

Bibliography:

1. W. O. Reece, H. H. Erickson, J. P. Goff, E.E. Uemura, 2015, Dukes' Physiology of Domestic Animals, Thirteenth Edition, Wiley & Sons, Inc.

2. Bradley G. Klein, 2013, Cunningham's Textbook of Veterinary Physiology, Fifth Edition, Elsevier Saunders.

3. Ana Chelaru, Geta Pavel, 2005 – Physiology – simulation models, Ed. Tehnopress, Iasi.

III. PATHOPHYSIOLOGY

1. General Adaptation Syndrome
2. Shock Pathophysiology
3. Inflammation Pathophysiology
4. Thermal Homeostasis Pathophysiology
5. Hydro-electrolytical Balance Pathophysiology

Bibliography:

Pathophysiology – Lecture notes

IV. SEMIOLOGY

1. General examination of the animal. The gums (superficial mucosa), lymph nodes
2. Urine examination. Proteinuria, the urinary sediment examination
3. Digestive apparatus examination. The vomiting (emesis) esophagus examination and semiology, stomach (in monogastrics) examination and semiology
4. Cardiovascular apparatus examination. Heart auscultation (without arrhythmias, without cardiac pathologic sounds)
5. Nervous system examination. The behavior and the motility examination

Bibliography:

1. Vulpe V., 2016 - General veterinary semiology, PIM, Iași
2. Vulpe V., 2020 – Veterinary examination of the organs and systems, PIM, Iași
3. Vulpe V., 2017– Lectures Notes;

V. FARMACOLOGY

- Chapter 32. Antiseptics and Disinfectants
- Chapter 33. Potentiated Sulfonamides
- Chapter 34. Beta-Lactam Antibiotics: Penicillins, Cephalosporin
- Chapter 35. Tetracycline Antibiotics:
- Chapter 36. Aminoglycoside Antibiotics:
- Chapter 37. Chloramphenicol and derivatives, Macrolide
- Chapter 38. Fluoroquinolones
- Chapter 39. Antifungal drug

Bibliography

Veterinary Pharmacology & Therapeutics. Ninth edition. Jim E. Riviere and Mark G. Papich, 2009

VI. MICROBIOLOGY

1. The concept of bacteria.
2. Bacteria shape and grouping.
3. Bacterial cell structure: cell wall and capsule.
4. Gram stain
5. The influence of environmental factors on bacteria: maximum growth temperature
6. The effects of chemical agents on bacteria: Antimicrobial agents (Kirby-Bauer method)
7. Bacteria pathogenicity and its mechanisms.
8. Special bacteriology.
 - *Staphylococcus* genus
 - *Bacillus* genus: *Bacillus anthracis* species
 - *Clostridium* genus: *Cl. tetani* and *Cl. perfringens* species

- *Escherichia* genus

- *Leptospira* genus

Bibliography

1. Laboratory Exercises in Microbiology, fifth edition, 2002 by Jonhn P. Harley and Lansing M. Prescott, electronic book
2. Cătălin Carp-Cărare, Eleonora Guguianu, Cristina Rîmbu, Special bacteriology practical assignment guidelines, electronic book.
3. Cătălin Carp-Cărare Lecture notes
4. Gerard J. Tortora, Berdell R. Funke, Christine L. Case, 1998– Microbiology An Introduction, Sixt Edition, Benjamin/Cummings Publishing Company 2725 Sand Hill Road, California, ISBN 0-8053-8535-5.

VII. PATHOLOGICAL ANATOMY

1.Heart Pathology

Cadaveric modification of the heart

Congenital anomalies of the heart and vessels

Pericardium injuries

Myocardial injury

Endocardial lesions

2. Lung pathology in mammals

Volumetric changes

Dystrophies of the lungs

Circulatory changes

Lung inflammation

Lung tumors

Bibliography

1. Sorin-Aurelian Pașca – lectures lito, 2017
2. Jubb, Kennedy, Palmer – Pathology of Domestic Animals Vol. 2+3, Elsevier, 2007

PRACTICAL EXAMINATION – Assessment of practical knowledge

I. INFECTIOUS DISEASES, PREVENTIVE MEDICINE AND CLINICAL LECTURES BY SPECIES

1. Bovine tuberculosis
2. Avian mycoplasmosis
3. Brucellosis: cattle, sheep, swine, horses, dogs, rodents.
Contagious epididymitis of rams.
4. Colibacillosis in mammals and poultry.
5. Salmonellosis in mammals and poultry.
6. Pasteurellosis in mammals and poultry.
7. Necrobacillosis: cattle, sheep, swine, horses and rabbits.
8. Ovine infections foot rot.
9. Anthrax
10. Rabies
11. Infectious diseases of rabbits (pasteurellosis, myxomatosis, viral haemorrhagic disease)
12. Viral diseases of dogs (parvovirus, Canine distemper, infectious tracheobronchitis - Kennel Cough, coronaviruses)

13. Viral diseases of cats (feline infectious peritonitis, feline panleukopenia, calicivirosis, herpesvirosis).
14. Septic diseases of poultry (New Castle disease, pasteurellosis).
15. Diseases with chronic evolution in poultry (tuberculosis, avian leucosis).
16. Streptococcal infections (strangles, petechial fever, foal streptococcosis).
17. Contagious mastitis in sheep and goat (mycoplasmic mastitis, staphylococcal mastitis, Pasteurella mastitis).
18. Contagious mastitis in cattle (subclinical mastitis: coliform mastitis, staphylococcal mastitis, streptococcal mastitis).

Bibliography

- M.V.M.: The Merck veterinary manual. Merial Ltd., New York, 1998.
- Perianu T. et al., – Infectious diseases of animals. Bacteriosis. The Universitatis XXI Publishing House, Iasi, 2011.
- Perianu Tudor et al., - Infectious animal diseases. Viroze. The Universitatis XXI Publishing House, Iasi, 2012.
- Radostis, O. M.; Blood, D. C.; Gay, J., Veterinary Medicine Bailliere Tindall, New York , 2000
- Elena Velescu - Pathology of Infectious Diseases in Animals, Ed. "Terra Nostra", Iasi, 2002.
- Tanase Irina-Oana, Daraban Florentina, 2015 – Infectious animal diseases. Practical Practitioner. Editura "Ion Ionescu de la Brad" Iași, ISBN: 978-973-147-201-0.

II. REPRODUCTION AND PATHOLOGY OF REPRODUCTION

1. Particularities of sexual cycle on species
2. Hypophysary gonadotrophyn hormones
3. Steroidian hormones implicated in reproduction
4. Extrahypofisary gonadotrophyns
5. Gestation, duration of gestation and foetal annexes of species
6. Gestosis
7. Non-infectious abortions
8. Parturition stages and characteristics of species
9. Dystocia
10. Puerperal affections
 - Affections of the genital tract
 - Uterine prolapse
 - Retention of the fetal annexes
 - Uterine inflammations
11. Ovarian affections
 - Trophic disorders
 - Persistent Lutheal Body
 - Ovarian cyst
12. Uterine affections as infertility factor

Bibliography

1. Drugociu D., (2009) – ‘‘Obstetrical-gynecological diseases in animals’’ – Ed. II, ISBN 973-7921-66-6. Ed. ‘‘Ion Ionescu de la Brad’’ Iasi
2. Runceanu L., Drugociu D., Rosca P., Anton C. (2002) : ‘‘Clinical Reproduction, Obstetrics and andrology’’ Ed. Venus, Iasi
3. Robert S. Youngquist, Walter R. Threlfall (2000) : ‘‘Large animal Theriogenology’’

III. INTERNAL MEDICINE CLINIC AND PATHOLOGY BY SPECIES

1. Pre-stomach diseases. Diagnostic, etiologic explanations, prevention and treatment.
2. Colic syndrome in horses, swines and carnivores.
3. Diagnosis and treatment of gastro-pathies and entero-pathies: secreto-motor, topographic and inflammatory.
4. Youth enteritis: diagnosis methodology, prevention and control.
5. Hepatic pathology. Icterus, ascites, cirrhosis, hepatic encephalopathy. Clinics and therapy.
6. Clinics and therapy of respiratory syndroms (rhinitis, laringotracheitis, bronchitis, bronchopneumonia, liquido-thorax, emphysema, mediastinal syndrome and chronic respiratory syndrome).
7. Acute and chronic cardiac insufficiency syndrome. Syncope, shock and cardiovascular collapse: etiopathogenesis, symptoms, diagnosis and prevention. Cardio-pulmonary resuscitation in dogs.
8. Anemic and hemoragipar syndrome. Etiopathogenesis, symptomatology, clinical and para-clinical diagnostic, prevention and control.
9. Nephro-pathies and cysto-pathy: symptomatology, clinical and para-clinical diagnostic, treatment. Urolithiasis in ruminants, domestic carnivores and fur animals. Clinic and therapy.
10. Particularities of neurologic diagnostic. Diagnostic and therapy of encephalo-pathies, spinalcord-pathies. Neuralgia and neuritis.
11. Behavioral aberrations in mammals and birds. Diagnosis and treatment.
12. Neuroendocrine and vegetative pathology. Diabetes and stress: clinics and therapy.
13. Clinics and therapy of osteo-musculare illnes: functional, ischemic, distrofic, adaptation and inflamathory miopathies.
14. Particularity of diagnostic and treatment of dermato-pathies. Distrophic, alergic and inflammatory dermato-pathies. Photosensibilization dermatitis.
15. Protein disorders in mamals and birds (osteoporosis, hiperuricemia and gout in birds, digestive disorders produced by exces of proteins from food ration in different animal species).
17. Clinics and therapy of glucidic and lipidic disorders: hipoglicemia in new-born piglets, hipoglicemia in piglets, ketosis in cows and sheeps. Fat liver syndrome and hemoragic syndrome in chicken, fat cow syndrome.
18. Clinics and therapy of minerals and vitamins disorders: tetanic hypo-calcaemia in carnivores, hypocalcaemia in sheeps and goats, parturition hypo-calcaemic paresis in cows, grass tetany in cows, hypo-magnesian tetany in calves, hypo-thiaminosis in calves, lambs and dogs.
19. Nutritional miopathies in mamals and birds. Clinics and therapy.

Bibliography:

1. Nelson, W.R., Couto, C.G. –(1999)-*Small animal internal medicine, Mosby, St. Louis, Baltimore, Boston, Chicago.*
 2. Radostits O.M., Gay C.C., Blood D.C., Hinchcliff K.W., (2007), *Veterinary Medicine. A textbook of the diseases of cattle, sheep, pigs, goats and horses*, 10th Edition, Saunders W.B., Philadelphia.
 3. Anton Alina, Solcan Gh., 2019, *Animal Internal Medicine. Digestive System Diseases*. Editura Ion Ionescu de la Brad, Iași
 4. Luminița Diana Hrițcu, 2019, *Veterinary respiratory and cardiovascular medicine*, Editura Ion Ionescu de la Brad, Iași
- http://www.merckvetmanual.com/mvm/index.jsp?cfile=htm/bc/toc_40500.htm

IV. SURGICAL PATHOLOGY AND CLINICS

1. Surgical infection: localized and generalized infections, aerobe and anaerobe surgical infections.
2. Blunt and open injuries (contusions, wounds)
3. Gangrene
4. Burns: by chemical substances or thermal agents
5. Tumors

6. Diseases of the skin and subcutaneous tissue
7. Diseases of the subcutaneous serous bursa
8. Diseases of the blood vessels
9. Diseases of the peripheral nerves
10. Diseases of the muscles and tendons
11. Diseases of the bones and joints
12. Diseases of the hoof, claw, nail
13. Surgical diseases of the head
14. Surgical diseases localized above the ankle
15. Surgical diseases of the abdomen
16. Surgical diseases of the urinary and genital systems
17. Veterinary ophthalmology

Bibliography

1. BIRCHARD J.S., SHERDING G.R., 1994 – Saunder's Manual of Small Animal Practice, ed. W.B. Saunders Co., Philadelphia;
2. FOSSUM WELCH THERESA ET COLL., 2007 – Small Animal Surgery, 3rd edition, ed. Mosby Elsevier, Missouri;
3. GELATT K.N., 2007 – Veterinary Ophthalmology, 2 volume-set, 4th edition, Wiley-Blackwell, Iowa;
4. OEHME F.W., PRIER E.J., 1988 – Textbook of large animal surgery, William & Wilkins Co, Baltimore;

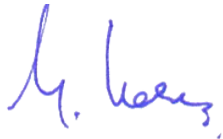
V. PARASITOLOGY AND PARASITIC DISEASES

1. Protozoa
 - Eimeriosis in mammals and birds
 - Toxoplasmosis
 - Cryptosporidiosis
 - Neosporous
2. Trematodoses
 - Fasciolosis
 - Paramfistomosis
 - Prostogonimosis
3. Cestodoses; metacestodoses
 - Cestodoses in mammals and birds
 - Muscle cysticercosis
 - Hydatidosis
 - Cenurosis
4. Nematodoses
 - Pulmonary nematodes in mammals and birds
 - Dictyocaulosis
 - Protostrongylosis
 - Digestive nematodes in mammals and birds
 - Ascarioses
 - Ancilostomosis
 - Trichinellosis
5. Mites
 - Scabies in mammals and birds
 - Infestation with ticks
6. Entomosis
 - Infestation with insects of the order: Anoplura, Malophaga and Siphonaptera
 - Myases

Bibliography:

1. Iacob Olimpia - Lecture presentation notes (Ppt presentation)
2. Bowman, D. Dwight. 2014 –Georgis` Parasitology for Veterinarians, 10th ed., Elsevier Saunders ISBN: 978-1-4557-4006-2
3. Dhaliwal Singh B.B., Juyal Dutt Prayag. 2013 – Parasitic Zoonoses, Springer India, ISBN 978-81-322-1551-6 (eBook)
4. Elsheikha M. Hany, Patterson S. Jon. 2013 - Veterinary Parasitology, Manson Publishing/The Veterinary Press.
5. La Mann V. Gregory (editor). 2010 – Veterinary Parasitology, Nova Biomedical Press, Inc. New York

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