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Ministry of Agriculture of the Russian Federation
Federal State Budgetary Educational Institution
of Higher Education
"St. Petersburg State University of Veterinary Medicine"

APPROVED BY
Vice-Rector for Educational
Work and Youth Policy
Sukhinin A.A.
May 6, 2024

Department of Internal Diseases of animals named after A. V. Sinev

EDUCATIONAL WORK PROGRAM

for the discipline

"INTERNAL NON-COMMUNICABLE DISEASES"

**The level of higher education
SPECIALIST COURSE**

**Specialty 36.05.01 Veterinary Medicine
Full-time education
Education starts in 2024**

Reviewed and adopted
at the meeting of the department
on May 2, 2024.
Protocol No. 9

Head of the Department of Internal
Diseases of Animals named after Sinev A.V.
Doctor of Veterinary Sciences,
Associate Professor A.V. Prusakov



Saint Petersburg
2024

1. AIMS AND OBJECTIVES OF THE DISCIPLINE "INTERNAL NON-COMMUNICABLE DISEASES"

The main goal in the training of a veterinarian in the discipline B1.O.30 "Internal non-communicable diseases" is to provide students with theoretical and practical knowledge on general prevention and therapy, therapeutic techniques, etiology, pathogenesis, clinical manifestation, diagnosis, treatment and prevention of specific nosological forms of non-communicable diseases.

The main promising tasks of the discipline "Internal non-communicable diseases" are:

- a) study of the dynamics and features of the course of internal non-communicable diseases in conditions of intensive animal husbandry with industrial technology;
- b) further improvement and development of diagnostic methods, study of endemic diseases;
- c) the search for effective dietary and therapeutic agents, premixes and optimal vitamin and mineral composition of compound feeds and feed mixtures for the prevention of metabolic pathology;
- d) development of effective methods of group therapy and prevention of diseases of the respiratory and digestive systems;
- e) the search for effective anti-stress drugs, biostimulants and other means to increase the nonspecific resistance of the body;
- f) development of reliable methods of group and individual therapy and prevention of non-communicable diseases of young animals.

2. THE LIST OF THE PLANNED RESULTS OF THE DISCIPLINE (MODULE), CORRELATED WITH THE PLANNED RESULTS OF THE REALISED EDUCATIONAL PROGRAM

As a result of mastering the discipline, the student prepares for the following types of activities, in accordance with the educational standard of the FSE on 05.36.01 "Veterinary Medicine".

The field of professional activity:

13 Agriculture

01 Education and Science

Types of tasks of professional activity:

- Medical.

2.1. The student's competencies formed (acquired) as a result of mastering the discipline

The study of the discipline should form the following competencies:

a) general professional skills (GPC):

- Is able to determine the biological status, normal clinical signs of organs and systems of the animal body (GPC-1);
- Is able to interpret and evaluate in professional activity the influence of natural, socio-economic, genetic and economic factors on the physiological status of the animal body (GPC-2).

b) professional competencies (PC):

- To set the diagnose based on the analysis of anamnesis, general, special (instrumental) and laboratory research methods (PC -3);
- To carry out plan of animal treatment, based on the stated diagnosis and animals individual characteristics, signature of necessary remedies of chemical and biological nature for the treatment, taking into account combination of its pharmacological effect on the animal body (PC-5);
- The selection of the variety of methods of non-drug therapy, including physiotherapy methods for the treatment of animals, carry out therapeutic, including physiotherapy procedures using special equipment in compliance with safety rules (PC-6);

- Application of follow-up examinations and studies of animals to assess the effectiveness and safety of the prescribed treatment, detalisation of the animal treatment plan (if necessary) based on the results of the evaluation of the treatment effectiveness **(PC-10)**;

- Management of organizational, technical, zootechnical and veterinary measures for the prevention of non-contagious diseases in accordance with the preventive plan, analysis of the effectiveness of measures for the prevention of animal diseases for its improvement **(PC-15)**;

- Drawing up a plan for the medical examination of animals, taking into account its husbandry type, veterinary examinations in order to preserve the health of animals and increase its productivity, development of recommendations for preventive and treatment measures, based on the results of animal study, conducted as part of the veterinary examination **(PC-17)**.

The planned results of the development of competencies, taking into account professional standards

Index	Content
GPC-1	Is able to determine the biological status, normal clinical signs of organs and systems of the animal body
GPC-1 ID -1	To know: safety precautions and personal hygiene rules during the examination of animals, methods of its fixation; schemes of clinical examination of an animal and the procedure for examination individual body systems; methodology for diagnosis of the pathological process
GPC-1 ID -2	To be able to: collect and analyze anamnesis data, conduct laboratory and functional studies, necessary to determine the animal biological status
GPC-1 ID -3	To possess practical skills: for conducting on its own a clinical examination of an animal, using classical research methods and digital technologies
GPC-2	Is able to interpret and evaluate in professional activity the influence of natural, socio-economic, genetic and economic factors on the physiological status of the animal body
GPC-2 ID -1	To know: ecology factors of the environment, its classification and the nature of relationships with living organisms; basic ecological concepts; interspecific relations of animals and plants, terms and bio ecology laws, parasites and hosts; ecological features of some types of pathogenic microorganisms; mechanisms of influence of anthropogenic and economic factors on the animal body
GPC-2 ID -2	To be able to: use environmental factors and environmental laws in agricultural manufacture; apply the achievements of modern microbiology and ecology of microorganisms in animal husbandry and veterinary medicine in order to prevent infectious and invasive diseases and treat animals; use environmental monitoring methods in the environmental assessment of agricultural facilities and the production of agricultural products; assess the impact on the animal body, anthropogenic and economic factors
PC-3	To set the diagnose based on the analysis of anamnesis, general, special (instrumental) and laboratory research methods
PC-3 ID -1	To possess skills to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases
PC-3 ID -2	To possess skills to use specialized information databases for the diagnosis of animal diseases
PC-3 ID -3	To possess skills to document the results of clinical animal studies, using digital technologies
PC-3 ID -4	To know the methods of interpretation and data analysis of special (instrumental) methods of animal examination
PC-3 ID -5	To know the norms of indicators of the status of animals' biological material of different species and the reasons that cause deviations from the norms
PC-3 ID -6	To know the etiology and pathogenesis of animal diseases of various species
PC-3 ID -7	To know the generally accepted criteria and classifications of animal diseases, approved lists of animals disease
PC-5	To carry out plan of animal treatment, based on the stated diagnosis and animals individual characteristics, signature of necessary remedies of chemical and biological nature for the treatment, taking into account combination of its pharmacological effect on the animal body
PC-5 ID -1	To be able to use specialized information databases at a choice of animal treatment methods
PC-5 ID -2	To be able to calculate the amount of remedies for the treatment of animals and the prevention of diseases with the receipts signature for a certain period
PC-5 ID -3	To be able to calculate the amount of remedies for the treatment of animals and for the prevention of diseases with the receipts signature for a certain period, using digital technologies as well
PC-5 ID -4	To be able to administer drugs to the animals body in various techniques
PC-5 ID -5	To know the methods of pharmacological treatment of sick animals and indications for its administration, in accordance with the guidelines, instructions, manuals, rules of diagnosis, prevention and treatment

PC-5 ID -8	To know the ways of drug injections, used both for animals enteral (oral, sublingual and rectal administration) and parenteral (injections, inhalations and skin applications) methods
PC-6	The selection of the variety of methods of non-drug therapy, including physiotherapy methods for the treatment of animals, carry out therapeutic, including physiotherapy procedures using special equipment in compliance with safety rules
PC-6 ID -1	To be able to use special, both digital therapeutic equipment and physiotherapy procedures, in accordance with its instructions
PC-6 ID -2	To be able to fix animals to ensure safety during medical procedures
PC-6 ID -3	To be able to maintain patients documentation on diseases and treatment of animals, using digital technologies
PC-6 ID -4	To know the types of non-drug therapy, including physiotherapy, used in veterinary medicine, and the clinical signs for its use
PC-6 ID -6	To know the safety rules of manipulation with special equipment during non-drug instrumentation for the animals
PC-6 ID -7	To know the methods and techniques of non-drug manipulations for the animal
PC-6 ID -8	To know forms and rules for filling out the journal for the registration of sick animals and the animal's medical history in accordance with the requirements of veterinary legislation, in digital format as well
PC-10	Application of follow-up examinations and studies of animals to assess the effectiveness and safety of the prescribed treatment, detalisation of the animal treatment plan (if necessary) based on the results of the evaluation of the treatment effectiveness
PC-10 ID -1	To be able to evaluate the effectiveness of treatment
PC-10 ID -2	To be able to use specialized information databases when choosing ways for treat animal diseases
PC-10 ID -3	To know the methods of drug treatment of sick animals and indications for its use in accordance with the guidelines, instructions, manuals, rules of diagnosis, prevention and treatment of animals
PC-15	Management of organizational, technical, zootechnical and veterinary measures for the prevention of non-contagious diseases in accordance with the preventive plan, analysis of the effectiveness of measures for the prevention of animal diseases for its improvement
PC-15 ID -1	To be able to assess the impact of animal welfare and feeding conditions on its health as part of the implementation of action plans for the prevention of animal diseases using digital technologies
PC-15 ID -2	To be able to evaluate the effectiveness of preventive measures and ways to implement them, using digital technologies as well
PC-15 ID -4	To be able to perform diagnostic examination of animals within the framework of medical examination for early detection of disease preclinical and clinical signs
PC-15 ID -5	To know the types of measures for the prevention of non-contagious animal diseases and metabolic disorders in animals and the requirements for its implementation, in accordance with methodological guidelines, instructions, manuals, rules for the diagnosis, prevention and treatment of animals
PC-17	Drawing up a plan for the medical examination of animals, taking into account its husbandry type, veteri nary examinations in order to preserve the health of animals and increase its productivity, development of recommendations for preventive and treatment measures, based on the results of animal study, conducted as part of the veterinary examination
PC-17 ID -1	To be able to perform diagnostic examination of animals within the framework of veterinary study with the use of digital equipment, for early detection of preclinical and clinical signs of the disease
PC-17 ID -2	To know the methodology of veterinary examination of animals in accordance with the actual methodological guidelines
PC-17 ID -3	To know the types of preventive measures of non-contagious animal diseases and metabolic disorders and the requirements for its implementation in accordance with methodological guidelines, instructions, manuals, rules for the diagnosis, prevention and treatment of animals

3. THE PLACE OF DISCIPLINE IN THE STRUCTURE OF THE MPEP

Discipline B1.O.30 "Internal non-communicable diseases" is a mandatory part of the disciplines of the federal state educational standard of higher education in the specialty 36.05.01 "Veterinary Medicine" (specialty level).

He learns in the 4th year in 7-8 semesters, in the 5th year in the 9th semester of full-time education.

When teaching the discipline B1.O.30 "Internal non-infectious diseases", the knowledge and skills acquired by students during the development of the disciplines of anatomy, histology and embryology, biochemistry, physiology, feeding, pathological physiology, pathological anatomy and forensic veterinary examination, clinical diagnostics, pharmacology and toxicology, parasitology and epizootology are used.

4. THE SCOPE OF DISCIPLINE AND TYPES OF ACADEMIC WORK

4.1. The scope of the discipline for full-time education

Type of educational work	Hours	Semesters		
		7	8	9
Classroom classes (total)	132	36	22	42
Including:	-	-	-	-
Lectures, including interactive forms	66	16	16	34
Practical (PP), including interactive forms, among which are:	66	16	16	34
practical training (PT)	18	4	6	8
Self-study	165	40	76	49
Control	27	0	0	27
Type of intermediate and final certification (credit, exam)	Credit, exam	Credit	Credit	Exam
Total labor intensity hours/credits	324/9	72/2	108/3	144/4

5. THE CONTENT OF THE DISCIPLINE AND TYPES OF CLASSES

№	Name Practical and lecture classes (7th semester)	Emerging competences	Term	Types of academic work, including students' independent work and labor intensity (in hours)				
				CONTROL OF INDEPENDENT WORK	LECTURES	PRACTICAL EXERCISES	PRACTICAL TRAINING	INDEPENDENT WORK
1	Introductory lesson. Safety and personal hygiene when working with sick animals. Rules of clinical research and treatment of animals, methods of fixation and taming of animals. The basic principles, tools and methods of veterinary therapy. Medical examination of animals for internal non- infectious diseases	GPC-1 Is able to determine the biological status, normal clinical signs of organs and systems of the animal body GPC-1 ID-1 To know: safety precautions and personal hygiene rules during the examination of animals, methods of its fixation; schemes of clinical examination of an animal and the procedure for examination individual body systems; methodology for diagnosis of the pathological process GPC-1 ID-2 To be able to: collect and analyze anamnesis data, conduct laboratory and functional studies, necessary to determine the animal biological status GPC-1 ID-3 To possess practical skills: for conducting on its own a clinical examination of an animal, using classical research methods and digital technologies GPC-2 Is able to interpret and evaluate in professional activity the influence of natural, socio-economic, genetic and economic factors on the physiological status of the animal body GPC-2 ID-1 To know: ecology factors of the environment, its classification and the nature of relationships with living organisms; basic ecological concepts; interspecific relations of animals and plants, terms and bio ecology laws, parasites and hosts; ecological features of some types of pathogenic microorganisms; mechanisms of influence of anthropogenic and economic factors on the animal body GPC-2 ID-2 To be able to: use environmental factors and environmental laws in agricultural manufacture; apply the achievements of modern microbiology and ecology of microorganisms in animal husbandry and veterinary medicine in order to prevent infectious and invasive diseases and treat animals; use environmental monitoring methods in the environmental assessment of agricultural facilities and the production of agricultural products; assess the impact on the animal body, anthropogenic and economic factors PC-3 To set the diagnose based on the analysis of anamnesis, general, special (instrumental) and laboratory research methods PC-3 ID-1 To possess skills to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases PC-3 ID-2 To possess skills to use specialized information databases for the diagnosis of animal diseases PC-3 ID-3 To possess skills to document the results of clinical animal studies, using digital technologies PC-3 ID-4 /To know the methods of interpretation and data analysis of special (instrumental) methods of animal examination PC-3 ID-5 To know the norms of indicators of the status of animals' biological material of different species and the reasons that cause deviations from the norms PC-3 ID-6 To know the etiology and pathogenesis of animal diseases of various species PC-3 ID-7 To know the generally accepted criteria and classifications of	7		2	2	4	

	animal diseases, approved lists of animals disease PC-5 To carry out plan of animal treatment, based on the stated diagnosis and animals individual characteristics, signature of necessary remedies of chemical and biological nature for the treatment, taking into account combination of its pharmacological effect on the animal body PC-5 ID -1 To be able to use specialized information databases at a choice of animal treatment methods PC-5 ID -2 To be able to calculate the amount of remedies for the treatment of animals and the prevention of diseases with the receipts signature for a certain period PC-5 ID -3 To be able to calculate the amount of remedies for the treatment of animals and for the prevention of diseases with the receipts signature for a certain period, using digital technologies as well PC-5 ID -4 To be able to administer drugs to the animals body in various techniques PC-5 ID -5 To know the methods of pharmacological treatment of sick animals and indications for its administration, in accordance with the guidelines, instructions, manuals, rules of diagnosis, prevention and treatment PC-5 ID -8 To know the ways of drug injections, used both for animals enteral (oral, sublingual and rectal administration) and parenteral (injections, inhalations and skin applications) methods PC-17 Drawing up a plan for the medical examination of animals, taking into account its husbandry type, veterinary examinations in order to preserve the health of animals and increase its productivity, development of recommendations for preventive and treatment measures, based on the results of animal study, conducted as part of the veterinary examination PC-17 ID -1 To be able to perform diagnostic examination of animals within the framework of veterinary study with the use of digital equipment, for early detection of preclinical and clinical signs of the disease PC-17 ID -2 To know the methodology of veterinary examination of animals in accordance with the actual methodological guidelines PC-17 ID -3 To know the types of preventive measures of non-contagious animal diseases and metabolic disorders and the requirements for its implementation in accordance with methodological guidelines, instructions, manuals, rules for the diagnosis, prevention and treatment of animals						
2	Therapeutic technique. The methods of administration of drugs are individual and group. Hemotherapy, bloodletting. Methods of inhalation, aerosol therapy, hyperbaric oxygenation.	GPC-1 Is able to determine the biological status, normal clinical signs of organs and systems of the animal body GPC-1 ID-1 To know: safety precautions and personal hygiene rules during the examination of animals, methods of its fixation; schemes of clinical examination of an animal and the procedure for examination individual body systems; methodology for diagnosis of the pathological process GPC-1 ID -2 To be able to: collect and analyze anamnesis data, conduct laboratory and functional studies, necessary to determine the animal biological status GPC-1 ID -3 To possess practical skills: for conducting on its own a clinical examination of an animal, using classical research methods and digital technologies PC-3 To set the diagnose based on the analysis of anamnesis, general, special (instrumental) and laboratory research methods PC-3 ID-1 To possess skills to make a diagnosis in accordance with generally accepted criteria and classifications. Lists of animal diseases.	7	2	1	1	4

Puncture of the scar and the introduction of medicinal liquids into the book. Probing and flushing of the stomach and pancreas. Therapeutic technique. Metalloindication and the introduction of magnetic probes, as well as magnetic modifiers into the mesh of cattle.	PC-3 ID -2 To possess skills to use specialized information databases for the diagnosis of animal diseases PC-3 ID -3 To possess skills to document the results of clinical animal studies, using digital technologies PC-3 ID -4 /To know the methods of interpretation and data analysis of special (instrumental) methods of animal examination PC-3 ID -5 To know the norms of indicators of the status of animals' biological material of different species and the reasons that cause deviations from the norms PC-3 ID -6 To know the etiology and pathogenesis of animal diseases of various species PC-3 ID -7 To know the generally accepted criteria and classifications of animal diseases, approved lists of animals disease PC-5 To carry out plan of animal treatment, based on the stated diagnosis and animals individual characteristics, signature of necessary remedies of chemical and biological nature for the treatment, taking into account combination of its pharmacological effect on the animal body PC-5 ID -1 To be able to use specialized information databases at a choice of animal treatment methods PC-5 ID -2 To be able to calculate the amount of remedies for the treatment of animals and the prevention of diseases with the receipts signature for a certain period PC-5 ID -3 To be able to calculate the amount of remedies for the treatment of animals and for the prevention of diseases with the receipts signature for a certain period, using digital technologies as well PC-5 ID -4 To be able to administer drugs to the animals body in various techniques PC-5 ID -5 To know the methods of pharmacological treatment of sick animals and indications for its administration, in accordance with the guidelines, instructions, manuals, rules of diagnosis, prevention and treatment PC-5 ID -8 To know the ways of drug injections, used both for animals enteral (oral, sublingual and rectal administration) and parenteral (injections, inhalations and skin applications) methods PC-6 The selection of the variety of methods of non-drug therapy, including physiotherapy methods for the treatment of animals, carry out therapeutic, including physiotherapy procedures using special equipment in compliance with safety rules PC-6 ID-1 To be able to use special, both digital therapeutic equipment and physiotherapy procedures, in accordance with its instructions PC-6 ID-2 To be able to fix animals to ensure safety during medical procedures PC-6 ID-3 To be able to maintain patients documentation on diseases and treatment of animals, using digital technologies PC-6 ID-4 To know the types of non-drug therapy, including physiotherapy, used in veterinary medicine, and the clinical signs for its use PC-6 ID-6 To know the safety rules of manipulation with special equipment during non-drug instrumentation for the animals PC-6 ID-7 To know the methods and techniques of non-drug manipulations for the animal PC-6 ID-8 To know forms and rules for filling out the journal for the registration of sick animals and the animal's medical history in accordance with the	
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5	Diagnosis, therapy and prevention of traumatic reticulitis, book blockage and rennet diseases. Traumatic reticulitis. Book blockage, rennet diseases	7	2	2	6	

					the animal body GPC-2 ID -1 To know: ecology factors of the environment, its classification and the nature of relationships with living organisms; basic ecological concepts; interspecific relations of animals and plants, terms and bio ecology laws, parasites and hosts; ecological features of some types of pathogenic microorganisms; mechanisms of influence of anthropogenic and economic factors on the animal body GPC-2 ID -2 To be able to: use environmental factors and environmental laws in agricultural manufacture; apply the achievements of modern microbiology and ecology of microorganisms in animal husbandry and veterinary medicine in order to prevent infectious and invasive diseases and treat animals; use environmental monitoring methods in the environmental assessment of agricultural facilities and the production of agricultural products; assess the impact on the animal body, anthropogenic and economic factors PC-3 To set the diagnose based on the analysis of anamnesis, general, special (instrumental) and laboratory research methods PC-3 ID -1 To possess skills to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases PC-3 ID -2 To possess skills to use specialized information databases for the diagnosis of animal diseases PC-3 ID -3 To possess skills to document the results of clinical animal studies, using digital technologies PC-3 ID -4 /To know the methods of interpretation and data analysis of special (instrumental) methods of animal examination PC-3 ID -5 To know the norms of indicators of the status of animals' biological material of different species and the reasons that cause deviations from the norms PC-3 ID -6 To know the etiology and pathogenesis of animal diseases of various species PC-3 ID -7 To know the generally accepted criteria and classifications of animal diseases, approved lists of animals disease PC-5 To carry out plan of animal treatment, based on the stated diagnosis and animals individual characteristics, signature of necessary remedies of chemical and biological nature for the treatment, taking into account combination of its pharmacological effect on the animal body PC-5 ID -1 To be able to use specialized information databases at a choice of animal treatment methods PC-5 ID -2 To be able to calculate the amount of remedies for the treatment of animals and the prevention of diseases with the receipts signature for a certain period PC-5 ID -3 To be able to calculate the amount of remedies for the treatment of animals and for the prevention of diseases with the receipts signature for a certain period, using digital technologies as well PC-5 ID -4 To be able to administer drugs to the animals body in various techniques PC-5 ID -5 To know the methods of pharmacological treatment of sick animals and indications for its administration, in accordance with the guidelines, instructions, manuals, rules of diagnosis, prevention and treatment PC-5 ID -8 To know the ways of drug injections, used both for animals enteral (oral, sublingual and rectal administration) and parenteral (injections, inhalations and skin applications) methods
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	PC-6 The selection of the variety of methods of non-drug therapy, including physiotherapy methods for the treatment of animals, carry out therapeutic, including physiotherapy procedures using special equipment in compliance with safety rules PC-6 ID-1 To be able to use special, both digital therapeutic equipment and physiotherapy procedures, in accordance with its instructions PC-6 ID-2 To be able to fix animals to ensure safety during medical procedures PC-6 ID-3 To be able to maintain patients documentation on diseases and treatment of animals, using digital technologies PC-6 ID-4 To know the types of non-drug therapy, including physiotherapy, used in veterinary medicine, and the clinical signs for its use PC-6 ID-6 To know the safety rules of manipulation with special equipment during non-drug instrumentation for the animals PC-6 ID-7 To know the methods and techniques of non-drug manipulations for the animal PC-6 ID-8 To know forms and rules for filling out the journal for the registration of sick animals and the animal's medical history in accordance with the requirements of veterinary legislation, in digital format as well PC-15 Management of organizational, technical, zootechnical and veterinary measures for the prevention of non-contagious diseases in accordance with the preventive plan, analysis of the effectiveness of measures for the prevention of animal diseases for its improvement PC-15 ID-1 To be able to assess the impact of animal welfare and feeding conditions on its health as part of the implementation of action plans for the prevention of animal diseases using digital technologies PC-15 ID-2 To be able to evaluate the effectiveness of preventive measures and ways to implement them, using digital technologies as well PC-15 ID-4 To be able to perform diagnostic examination of animals within the framework of medical examination for early detection of disease preclinical and clinical signs PC-15 ID-5 To know the types of measures for the prevention of non-contagious animal diseases and metabolic disorders in animals and the requirements for its implementation, in accordance with methodological guidelines, instructions, manuals, rules for the diagnosis, prevention and treatment of animals PC-10 Application of follow-up examinations and studies of animals to assess the effectiveness and safety of the prescribed treatment, detailisation of the animal treatment plan (if necessary) based on the results of the evaluation of the treatment effectiveness PC-10 ID-1 To be able to evaluate the effectiveness of treatment PC-10 ID-2 To be able to use specialized information databases when choosing ways for treat animal diseases PC-10 ID-3 To know the methods of drug treatment of sick animals and indications for its use in accordance with the guidelines, instructions, manuals, rules of diagnosis, prevention and treatment of animals PC-15 Management of organizational, technical, zootechnical and veterinary measures for the prevention of non-contagious diseases in accordance with the preventive plan, analysis of the effectiveness of measures for the prevention of animal diseases for its improvement PC-15 ID-1 To be able to assess the impact of animal welfare and feeding conditions on its health as part of the implementation of action plans for the	
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						various species PC-3 ID-7 To know the generally accepted criteria and classifications of animal diseases, approved lists of animals disease PC-5 To carry out plan of animal treatment, based on the stated diagnosis and animals individual characteristics, signature of necessary remedies of chemical and biological nature for the treatment, taking into account combination of its pharmacological effect on the animal body PC-5 ID-1 To be able to use specialized information databases at a choice of animal treatment methods PC-5 ID-2 To be able to calculate the amount of remedies for the treatment of animals and the prevention of diseases with the receipts signature for a certain period PC-5 ID-3 To be able to calculate the amount of remedies for the treatment of animals and for the prevention of diseases with the receipts signature for a certain period, using digital technologies as well PC-5 ID-4 To be able to administer drugs to the animals body in various techniques PC-5 ID-5 To know the methods of pharmacological treatment of sick animals and indications for its administration, in accordance with the guidelines, instructions, manuals, rules of diagnosis, prevention and treatment PC-5 ID-8 To know the ways of drug injections, used both for animals enteral (oral, sublingual and rectal administration) and parenteral (injections, inhalations and skin applications) methods PC-6 The selection of the variety of methods of non-drug therapy, including physiotherapy methods for the treatment of animals, carry out therapeutic, including physiotherapy procedures using special equipment in compliance with safety rules PC-6 ID-1 To be able to use special, both digital therapeutic equipment and physiotherapy procedures, in accordance with its instructions PC-6 ID-2 To be able to fix animals to ensure safety during medical procedures PC-6 ID-3 To be able to maintain patients documentation on diseases and treatment of animals, using digital technologies PC-6 ID-4 To know the types of non-drug therapy, including physiotherapy, used in veterinary medicine, and the clinical signs for its use PC-6 ID-6 To know the safety rules of manipulation with special equipment during non-drug instrumentation for the animals PC-6 ID-7 To know the methods and techniques of non-drug manipulations for the animal PC-6 ID-8 To know forms and rules for filling out the journal for the registration of sick animals and the animal's medical history in accordance with the requirements of veterinary legislation, in digital format as well PC-15 Management of organizational, technical, zootechnical and veterinary measures for the prevention of non-contagious diseases in accordance with the preventive plan, analysis of the effectiveness of measures for the prevention of animal diseases for its improvement PC-15 ID-1 To be able to assess the impact of animal welfare and feeding conditions on its health as part of the implementation of action plans for the prevention of animal diseases using digital technologies PC-15 ID-2 To be able to evaluate the effectiveness of preventive measures and ways to implement them, using digital technologies as well
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7	Pneumonia	PC-15 ID-4 To be able to perform diagnostic examination of animals within the framework of medical examination for early detection of disease preclinical and clinical signs PC-15 ID-5 To know the types of measures for the prevention of non-contagious animal diseases and metabolic disorders in animals and the requirements for its implementation, in accordance with methodological guidelines, instructions, manuals, rules for the diagnosis, prevention and treatment of animals PC-10 Application of follow-up examinations and studies of animals to assess the effectiveness and safety of the prescribed treatment, detailisation of the animal treatment plan (if necessary) based on the results of the evaluation of the treatment effectiveness PC-10 ID -1 To be able to evaluate the effectiveness of treatment PC-10 ID -2 To be able to use specialized information databases when choosing ways for treat animal diseases PC-10 ID -3 To know the methods of drug treatment of sick animals and indications for its use in accordance with the guidelines, instructions, manuals, rules of diagnosis, prevention and treatment of animals PC-15 Management of organizational, technical, zootechnical and veterinary measures for the prevention of non-contagious diseases in accordance with the preventive plan, analysis of the effectiveness of measures for the prevention of animal diseases for its improvement PC-15 ID-1 To be able to assess the impact of animal welfare and feeding conditions on its health as part of the implementation of action plans for the prevention of animal diseases using digital technologies PC-15 ID-2 To be able to evaluate the effectiveness of preventive measures and ways to implement them, using digital technologies as well PC-15 ID-4 To be able to perform diagnostic examination of animals within the framework of medical examination for early detection of disease preclinical and clinical signs PC-15 ID-5 To know the types of measures for the prevention of non-contagious animal diseases and metabolic disorders in animals and the requirements for its implementation, in accordance with methodological guidelines, instructions, manuals, rules for the diagnosis, prevention and treatment of animals GPC-1 Is able to determine the biological status, normal clinical signs of organs and systems of the animal body GPC-1 ID-1 To know: safety precautions and personal hygiene rules during the examination of animals, methods of its fixation; schemes of clinical examination of an animal and the procedure for examination individual body systems; methodology for diagnosis of the pathological process GPC-1 ID -2 To be able to: collect and analyze anamnesis data, conduct laboratory and functional studies, necessary to determine the animal biological status GPC-1 ID -3 To possess practical skills: for conducting on its own a clinical examination of an animal, using classical research methods and digital technologies GPC-2 Is able to interpret and evaluate in professional activity the influence of natural, socio-economic, genetic and economic factors on the physiological status of the animal body GPC-2 ID -1 To know: ecology factors of the environment, its classification and the nature of relationships with living organisms; basic ecological concepts; interspecific relations of animals and plants, terms and bio ecology laws, parasites	7	2	1	1	5
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						and hosts; ecological features of some types of pathogenic microorganisms; mechanisms of influence of anthropogenic and economic factors on the animal body GPC-2 ID -2 To be able to: use environmental factors and environmental laws in agricultural manufacture; apply the achievements of modern microbiology and ecology of microorganisms in animal husbandry and veterinary medicine in order to prevent infectious and invasive diseases and treat animals; use environmental monitoring methods in the environmental assessment of agricultural facilities and the production of agricultural products; assess the impact on the animal body, anthropogenic and economic factors PC-3 To set the diagnose based on the analysis of anamnesis, general, special (instrumental) and laboratory research methods PC-3 ID -1 To possess skills to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases PC-3 ID -2 To possess skills to use specialized information databases for the diagnosis of animal diseases PC-3 ID -3 To possess skills to document the results of clinical animal studies, using digital technologies PC-3 ID -4 /To know the methods of interpretation and data analysis of special (instrumental) methods of animal examination PC-3 ID -5 To know the norms of indicators of the status of animals' biological material of different species and the reasons that cause deviations from the norms PC-3 ID -6 To know the etiology and pathogenesis of animal diseases of various species PC-3 ID -7 To know the generally accepted criteria and classifications of animal diseases, approved lists of animals disease PC-5 To carry out plan of animal treatment, based on the stated diagnosis and animals individual characteristics, signature of necessary remedies of chemical and biological nature for the treatment, taking into account combination of its pharmacological effect on the animal body PC-5 ID -1 To be able to use specialized information databases at a choice of animal treatment methods PC-5 ID -2 To be able to calculate the amount of remedies for the treatment of animals and the prevention of diseases with the receipts signature for a certain period PC-5 ID -3 To be able to calculate the amount of remedies for the treatment of animals and for the prevention of diseases with the receipts signature for a certain period, using digital technologies as well PC-5 ID -4 To be able to administer drugs to the animals body in various techniques PC-5 ID -5 To know the methods of pharmacological treatment of sick animals and indications for its administration, in accordance with the guidelines, instructions, manuals, rules of diagnosis, prevention and treatment PC-5 ID -8 To know the ways of drug injections, used both for animals enteral (oral, sublingual and rectal administration) and parenteral (injections, inhalations and skin applications) methods PC-6 The selection of the variety of methods of non-drug therapy, including physiotherapy methods for the treatment of animals, carry out therapeutic, including physiotherapy procedures using special equipment in compliance with safety rules PC-6 ID-1 To be able to use special, both digital therapeutic equipment
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		within the framework of medical examination for early detection of disease preclinical and clinical signs PC-15 ID-5 To know the types of measures for the prevention of non-contagious animal diseases and metabolic disorders in animals and the requirements for its implementation, in accordance with methodological guidelines, instructions, manuals, rules for the diagnosis, prevention and treatment of animals					
8	Diagnosis, therapy and prevention of croup pneumonia, pulmonary emphysema and pleurisy	GPC-1 Is able to determine the biological status, normal clinical signs of organs and systems of the animal body GPC-1 ID-1 To know: safety precautions and personal hygiene rules during the examination of animals, methods of its fixation; schemes of clinical examination of an animal and the procedure for examination individual body systems; methodology for diagnosis of the pathological process GPC-1 ID-2 To be able to: collect and analyze anamnesis data, conduct laboratory and functional studies, necessary to determine the animal biological status GPC-1 ID-3 To possess practical skills: for conducting on its own a clinical examination of an animal, using classical research methods and digital technologies GPC-2 Is able to interpret and evaluate in professional activity the influence of natural, socio-economic, genetic and economic factors on the physiological status of the animal body GPC-2 ID -1 To know: ecology factors of the environment, its classification and the nature of relationships with living organisms; basic ecological concepts; interspecific relations of animals and plants, terms and bio ecology laws, parasites and hosts; ecological features of some types of pathogenic microorganisms; mechanisms of influence of anthropogenic and economic factors on the animal body GPC-2 ID -2 To be able to: use environmental factors and environmental laws in agricultural manufacture; apply the achievements of modern microbiology and ecology of microorganisms in animal husbandry and veterinary medicine in order to prevent infectious and invasive diseases and treat animals; use environmental monitoring methods in the environmental assessment of agricultural facilities and the production of agricultural products; assess the impact on the animal body, anthropogenic and economic factors PC-3 To set the diagnose based on the analysis of anamnesis, general, special (instrumental) and laboratory research methods PC-3 ID-1 To possess skills to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases PC-3 ID -2 To possess skills to use specialized information databases for the diagnosis of animal diseases PC-3 ID -3 To possess skills to document the results of clinical animal studies, using digital technologies PC-3 ID -4 /To know the methods of interpretation and data analysis of special (instrumental) methods of animal examination PC-3 ID -5 To know the norms of indicators of the status of animals' biological material of different species and the reasons that cause deviations from the norms PC-3 ID -6 To know the etiology and pathogenesis of animal diseases of various species PC-3 ID -7 To know the generally accepted criteria and classifications of animal diseases, approved lists of animals disease PC-5 To carry out plan of animal treatment, based on the stated diagnosis and	7	2	2	6	

	contagious animal diseases and metabolic disorders in animals and the requirements for its implementation, in accordance with methodological guidelines, instructions, manuals, rules for the diagnosis, prevention and treatment of animals PC-10 Application of follow-up examinations and studies of animals to assess the effectiveness and safety of the prescribed treatment, detailisation of the animal treatment plan (if necessary) based on the results of the evaluation of the treatment effectiveness PC-10 ID-1 To be able to evaluate the effectiveness of treatment PC-10 ID-2 To be able to use specialized information databases when choosing ways for treat animal diseases PC-10 ID-3 To know the methods of drug treatment of sick animals and indications for its use in accordance with the guidelines, instructions, manuals, rules of diagnosis, prevention and treatment of animals PC-15 Management of organizational, technical, zootechnical and veterinary measures for the prevention of non-contagious diseases in accordance with the preventive plan, analysis of the effectiveness of measures for the prevention of animal diseases for its improvement PC-15 ID-1 To be able to assess the impact of animal welfare and feeding conditions on its health as part of the implementation of action plans for the prevention of animal diseases using digital technologies PC-15 ID-2 To be able to evaluate the effectiveness of preventive measures and ways to implement them, using digital technologies as well PC-15 ID-4 To be able to perform diagnostic examination of animals within the framework of medical examination for early detection of disease preclinical and clinical signs PC-15 ID-5 To know the types of measures for the prevention of non-contagious animal diseases and metabolic disorders in animals and the requirements for its implementation, in accordance with methodological guidelines, instructions, manuals, rules for the diagnosis, prevention and treatment of animals								
	Total for the 7th semester: 72 hours					16	12	4	40
Practical and lecture classes (8th semester)									
1	Liver disease syndromes. Diagnosis, therapy and prevention of hepatitis, hepatosis, cirrhosis	GPC-1 Is able to determine the biological status, normal clinical signs of organs and systems of the animal body GPC-1 ID-1 To know: safety precautions and personal hygiene rules during the examination of animals, methods of its fixation, schemes of clinical examination of an animal and the procedure for examination individual body systems; methodology for diagnosis of the pathological process GPC-1 ID-2 To be able to: collect and analyze anamnesis data, conduct laboratory and functional studies, necessary to determine the animal biological status GPC-1 ID-3 To possess practical skills: for conducting on its own a clinical examination of an animal, using classical research methods and digital technologies GPC-2 Is able to interpret and evaluate in professional activity the influence of natural, socio-economic, genetic and economic factors on the physiological status of the animal body GPC-2 ID-1 To know: ecology factors of the environment, its classification and the nature of relationships with living organisms; basic ecological concepts;	8			2	1	1	10

		PC-15 ID-4 To be able to perform diagnostic examination of animals within the framework of medical examination for early detection of disease preclinical and clinical signs PC-15 ID-5 To know the types of measures for the prevention of non-contagious animal diseases and metabolic disorders in animals and the requirements for its implementation, in accordance with methodological guidelines, instructions, manuals, rules for the diagnosis, prevention and treatment of animals GPC-1 Is able to determine the biological status, normal clinical signs of organs and systems of the animal body GPC-1 ID-1 To know: safety precautions and personal hygiene rules during the examination of animals, methods of its fixation, schemes of clinical examination of an animal and the procedure for examination individual body systems; methodology for diagnosis of the pathological process GPC-1 ID-2 To be able to: collect and analyze anamnesis data, conduct laboratory and functional studies, necessary to determine the animal biological status GPC-1 ID-3 To possess practical skills: for conducting on its own a clinical examination of an animal, using classical research methods and digital technologies GPC-2 Is able to interpret and evaluate in professional activity the influence of natural, socio-economic, genetic and economic factors on the physiological status of the animal body GPC-2 ID-1 To know: ecology factors of the environment, its classification and the nature of relationships with living organisms; basic ecological concepts; interspecific relations of animals and plants, terms and bio ecology laws, parasites and hosts; ecological features of some types of pathogenic microorganisms; mechanisms of influence of anthropogenic and economic factors on the animal body GPC-2 ID-2 To be able to: use environmental factors and environmental laws in agricultural manufacture; apply the achievements of modern microbiology and ecology of microorganisms in animal husbandry and veterinary medicine in order to prevent infectious and invasive diseases and treat animals; use environmental monitoring methods in the environmental assessment of agricultural facilities and the production of agricultural products; assess the impact on the animal body, anthropogenic and economic factors PC-3 To set the diagnose based on the analysis of anamnesis, general, special (instrumental) and laboratory research methods PC-3 ID-1 To possess skills to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases PC-3 ID-2 To possess skills to use specialized information databases for the diagnosis of animal diseases PC-3 ID-3 To possess skills to document the results of clinical animal studies, using digital technologies PC-3 ID-4 /To know the methods of interpretation and data analysis of special (instrumental) methods of animal examination PC-3 ID-5 To know the norms of indicators of the status of animals' biological material of different species and the reasons that cause deviations from the norms PC-3 ID-6 To know the etiology and pathogenesis of animal diseases of various species PC-3 ID-7 To know the generally accepted criteria and classifications of animal diseases, approved lists of animals disease	8				2	2	10
2	Diagnosis, therapy and prevention of diseases of the biliary tract								

					laws in agricultural manufacture; apply the achievements of modern microbiology and ecology of microorganisms in animal husbandry and veterinary medicine in order to prevent infectious and invasive diseases and treat animals; use environmental monitoring methods in the environmental assessment of agricultural facilities and the production of agricultural products; assess the impact on the animal body, anthropogenic and economic factors PC-3 To set the diagnosis based on the analysis of anamnesis, general, special (instrumental) and laboratory research methods PC-3 ID -1 To possess skills to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases PC-3 ID -2 To possess skills to use specialized information databases for the diagnosis of animal diseases PC-3 ID -3 To possess skills to document the results of clinical animal studies, using digital technologies PC-3 ID -4 /To know the methods of interpretation and data analysis of special (instrumental) methods of animal examination PC-3 ID -5 To know the norms of indicators of the status of animals' biological material of different species and the reasons that cause deviations from the norms PC-3 ID -6 To know the etiology and pathogenesis of animal diseases of various species PC-3 ID -7 To know the generally accepted criteria and classifications of animal diseases, approved lists of animals disease PC-5 To carry out plan of animal treatment, based on the stated diagnosis and animals individual characteristics, signature of necessary remedies of chemical and biological nature for the treatment, taking into account combination of its pharmacological effect on the animal body PC-5 ID -1 To be able to use specialized information databases at a choice of animal treatment methods PC-5 ID -2 To be able to calculate the amount of remedies for the treatment of animals and the prevention of diseases with the receipts signature for a certain period PC-5 ID -3 To be able to calculate the amount of remedies for the treatment of animals and for the prevention of diseases with the receipts signature for a certain period, using digital technologies as well PC-5 ID -4 To be able to administer drugs to the animals body in various techniques PC-5 ID -5 To know the methods of pharmacological treatment of sick animals and indications for its administration, in accordance with the guidelines, instructions, manuals, rules of diagnosis, prevention and treatment PC-5 ID -8 To know the ways of drug injections, used both for animals enteral (oral, sublingual and rectal administration) and parenteral (injections, inhalations and skin applications) methods PC-6 The selection of the variety of methods of non-drug therapy, including physiotherapy methods for the treatment of animals, carry out therapeutic, including physiotherapy procedures using special equipment in compliance with safety rules PC-6 ID -1 To be able to use special, both digital therapeutic equipment and physiotherapy procedures, in accordance with its instructions PC-6 ID -2 To be able to fix animals to ensure safety during medical procedures
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4	Diagnosis, therapy and prevention of strangulation and hemostatic ileus, sand colic, peritonitis, ascites	contagious animal diseases and metabolic disorders in animals and the requirements for its implementation, in accordance with methodological guidelines, instructions, manuals, rules for the diagnosis, prevention and treatment of animals GPC-1 Is able to determine the biological status, normal clinical signs of organs and systems of the animal body GPC-1 ID-1 To know: safety precautions and personal hygiene rules during the examination of animals, methods of its fixation; schemes of clinical examination of an animal and the procedure for examination individual body systems; methodology for diagnosis of the pathological process GPC-1 ID-2 To be able to: collect and analyze anamnesis data, conduct laboratory and functional studies, necessary to determine the animal biological status GPC-1 ID-3 To possess practical skills: for conducting on its own a clinical examination of an animal, using classical research methods and digital technologies GPC-2 Is able to interpret and evaluate in professional activity the influence of natural, socio-economic, genetic and economic factors on the physiological status of the animal body GPC-2 ID-1 To know: ecology factors of the environment, its classification and the nature of relationships with living organisms; basic ecological concepts; interspecific relations of animals and plants, terms and bio ecology laws, parasites and hosts; ecological features of some types of pathogenic microorganisms; mechanisms of influence of anthropogenic and economic factors on the animal body GPC-2 ID-2 To be able to: use environmental factors and environmental laws in agricultural manufacture; apply the achievements of modern microbiology and ecology of microorganisms in animal husbandry and veterinary medicine in order to prevent infectious and invasive diseases and treat animals; use environmental monitoring methods in the environmental assessment of agricultural facilities and the production of agricultural products; assess the impact on the animal body, anthropogenic and economic factors PC-3 To set the diagnose based on the analysis of anamnesis, general, special (instrumental) and laboratory research methods PC-3 ID-1 To possess skills to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases PC-3 ID-2 To possess skills to use specialized information databases for the diagnosis of animal diseases PC-3 ID-3 To possess skills to document the results of clinical animal studies, using digital technologies PC-3 ID-4 /To know the methods of interpretation and data analysis of special (instrumental) methods of animal examination PC-3 ID-5 To know the norms of indicators of the status of animals' biological material of different species and the reasons that cause deviations from the norms PC-3 ID-6 To know the etiology and pathogenesis of animal diseases of various species PC-3 ID-7 To know the generally accepted criteria and classifications of animal diseases, approved lists of animals disease PC-5 To carry out plan of animal treatment, based on the stated diagnosis and animals individual characteristics, signature of necessary remedies of chemical and biological nature for the treatment, taking into account combination of its pharmacological effect on the animal body	8	2	2	10
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						PC-5 ID -1 To be able to use specialized information databases at a choice of animal treatment methods PC-5 ID -2 To be able to calculate the amount of remedies for the treatment of animals and the prevention of diseases with the receipts signature for a certain period PC-5 ID -3 To be able to calculate the amount of remedies for the treatment of animals and for the prevention of diseases with the receipts signature for a certain period, using digital technologies as well PC-5 ID -4 To be able to administer drugs to the animals body in various techniques PC-5 ID -5 To know the methods of pharmacological treatment of sick animals and indications for its administration, in accordance with the guidelines, instructions, manuals, rules of diagnosis, prevention and treatment PC-5 ID -8 To know the ways of drug injections, used both for animals enteral (oral, sublingual and rectal administration) and parenteral (injections, inhalations and skin applications) methods PC-6 The selection of the variety of methods of non-drug therapy, including physiotherapy methods for the treatment of animals, carry out therapeutic, including physiotherapy procedures using special equipment in compliance with safety rules PC-6 ID-1 To be able to use special, both digital therapeutic equipment and physiotherapy procedures, in accordance with its instructions PC-6 ID-2 To be able to fix animals to ensure safety during medical procedures PC-6 ID-3 To be able to maintain patients documentation on diseases and treatment of animals, using digital technologies PC-6 ID-4 To know the types of non-drug therapy, including physiotherapy, used in veterinary medicine, and the clinical signs for its use PC-6 ID-6 To know the safety rules of manipulation with special equipment during non-drug instrumentation for the animals PC-6 ID-7 To know the methods and techniques of non-drug manipulations for the animal PC-6 ID-8 To know forms and rules for filling out the journal for the registration of sick animals and the animal's medical history in accordance with the requirements of veterinary legislation, in digital format as well PC-15 Management of organizational, technical, zootechnical and veterinary measures for the prevention of non-contagious diseases in accordance with the preventive plan, analysis of the effectiveness of measures for the prevention of animal diseases for its improvement PC-15 ID-1 To be able to assess the impact of animal welfare and feeding conditions on its health as part of the implementation of action plans for the prevention of animal diseases using digital technologies PC-15 ID-2 To be able to evaluate the effectiveness of preventive measures and ways to implement them, using digital technologies as well PC-15 ID-4 To be able to perform diagnostic examination of animals within the framework of medical examination for early detection of disease preclinical and clinical signs PC-15 ID-5 To know the types of measures for the prevention of non-contagious animal diseases and metabolic disorders in animals and the requirements for its implementation, in accordance with methodological guidelines, instructions, manuals, rules for the diagnosis, prevention and treatment of animals
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6	Diagnosis, therapy and prevention of hypovitaminosis A, dyspepsia. Diagnosis, therapy and prevention of bezoar disease, peritonic calf tympany, toxic liver dystrophy of piglets. Diagnosis, therapy and prevention of bronchopneumonia, hypovitaminosis D, rickets	GPC-1 Is able to determine the biological status, normal clinical signs of organs and systems of the animal body GPC-1 ID-1 To know: safety precautions and personal hygiene rules during the examination of animals, methods of its fixation; schemes of clinical examination of an animal and the procedure for examination individual body systems; methodology for diagnosis of the pathological process GPC-1 ID-2 To be able to: collect and analyze anamnesis data, conduct laboratory and functional studies; necessary to determine the animal biological status GPC-1 ID-3 To possess practical skills: for conducting on its own a clinical examination of an animal, using classical research methods and digital technologies GPC-2 Is able to interpret and evaluate in professional activity the influence of natural, socio-economic, genetic and economic factors on the physiological status of the animal body GPC-2 ID-1 To know: ecology factors of the environment, its classification and the nature of relationships with living organisms; basic ecological concepts; interspecific relations of animals and plants, terms and bio ecology laws, parasites and hosts; ecological features of some types of pathogenic microorganisms; mechanisms of influence of anthropogenic and economic factors on the animal body GPC-2 ID-2 To be able to: use environmental factors and environmental laws in agricultural manufacture; apply the achievements of modern microbiology and ecology of microorganisms in animal husbandry and veterinary medicine in order to prevent infectious and invasive diseases and treat animals; use environmental monitoring methods in the environmental assessment of agricultural facilities and the production of agricultural products; assess the impact on the animal body, anthropogenic and economic factors PC-3 To set the diagnose based on the analysis of anamnesis, general, special (instrumental) and laboratory research methods PC-3 ID-1 To possess skills to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases PC-3 ID-2 To possess skills to use specialized information databases for the diagnosis of animal diseases PC-3 ID-3 To possess skills to document the results of clinical animal studies, using digital technologies PC-3 ID-4 /To know the methods of interpretation and data analysis of special (instrumental) methods of animal examination PC-3 ID-5 To know the norms of indicators of the status of animals' biological material of different species and the reasons that cause deviations from the norms PC-3 ID-6 To know the etiology and pathogenesis of animal diseases of various species PC-3 ID-7 To know the generally accepted criteria and classifications of animal diseases, approved lists of animals disease PC-5 To carry out plan of animal treatment, based on the stated diagnosis and animals individual characteristics, signature of necessary remedies of chemical and biological nature for the treatment, taking into account combination of its pharmacological effect on the animal body PC-5 ID-1 To be able to use specialized information databases at a choice of animal treatment methods PC-5 ID-2 To be able to calculate the amount of remedies for the treatment of animals and the prevention of diseases with the receipts signature for a	8	2	1	1	9
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7	Diagnosis, therapy and prevention of hypovitaminosis E, white muscle disease, alimentary disease. Diagnosis, therapy and prevention of enzootic ataxia of lambs, parakeratosis of piglets	PC-10 ID -1 To be able to evaluate the effectiveness of treatment PC-10 ID -2 To be able to use specialized information databases when choosing ways for treat animal diseases PC-10 ID -3 To know the methods of drug treatment of sick animals and indications for its use in accordance with the guidelines, instructions, manuals, rules of diagnosis, prevention and treatment of animals PC-15 Management of organizational, technical, zootechnical and veterinary measures for the prevention of non-contagious diseases in accordance with the preventive plan, analysis of the effectiveness of measures for the prevention of animal diseases for its improvement PC-15 ID-1 To be able to assess the impact of animal welfare and feeding conditions on its health as part of the implementation of action plans for the prevention of animal diseases using digital technologies PC-15 ID-2 To be able to evaluate the effectiveness of preventive measures and ways to implement them, using digital technologies as well PC-15 ID-4 To be able to perform diagnostic examination of animals within the framework of medical examination for early detection of disease preclinical and clinical signs PC-15 ID-5 To know the types of measures for the prevention of non-contagious animal diseases and metabolic disorders in animals and the requirements for its implementation, in accordance with methodological guidelines, instructions, manuals, rules for the diagnosis, prevention and treatment of animals	8	2	1	1	9
		GPC-1 Is able to determine the biological status, normal clinical signs of organs and systems of the animal body GPC-1 ID-1 To know: safety precautions and personal hygiene rules during the examination of animals, methods of its fixation; schemes of clinical examination of an animal and the procedure for examination individual body systems; methodology for diagnosis of the pathological process GPC-1 ID-2 To be able to: collect and analyze anamnesis data, conduct laboratory and functional studies, necessary to determine the animal biological status GPC-1 ID-3 To possess practical skills: for conducting on its own a clinical examination of an animal, using classical research methods and digital technologies GPC-2 Is able to interpret and evaluate in professional activity the influence of natural, socio-economic, genetic and economic factors on the physiological status of the animal body GPC-2 ID -1 To know: ecology factors of the environment, its classification and the nature of relationships with living organisms; basic ecological concepts; interspecific relations of animals and plants, terms and bio ecology laws, parasites and hosts; ecological features of some types of pathogenic microorganisms; mechanisms of influence of anthropogenic and economic factors on the animal body GPC-2 ID -2 To be able to: use environmental factors and environmental laws in agricultural manufacture; apply the achievements of modern microbiology and ecology of microorganisms in animal husbandry and veterinary medicine in order to prevent infectious and invasive diseases and treat animals; use environmental monitoring methods in the environmental assessment of agricultural facilities and the production of agricultural products; assess the impact on the animal body, anthropogenic and economic factors PC-3 To set the diagnose based on the analysis of anamnesis, general, special (instrumental) and laboratory research methods					

PC-3 ID -1 To possess skills to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases PC-3 ID -2 To possess skills to use specialized information databases for the diagnosis of animal diseases PC-3 ID -3 To possess skills to document the results of clinical animal studies, using digital technologies PC-3 ID -4 /To know the methods of interpretation and data analysis of special (instrumental) methods of animal examination PC-3 ID -5 To know the norms of indicators of the status of animals' biological material of different species and the reasons that cause deviations from the norms PC-3 ID -6 To know the etiology and pathogenesis of animal diseases of various species PC-3 ID -7 To know the generally accepted criteria and classifications of animal diseases, approved lists of animals disease PC-5 To carry out plan of animal treatment, based on the stated diagnosis and animals individual characteristics, signature of necessary remedies of chemical and biological nature for the treatment, taking into account combination of its pharmacological effect on the animal body PC-5 ID -1 To be able to use specialized information databases at a choice of animal treatment methods PC-5 ID -2 To be able to calculate the amount of remedies for the treatment of animals and the prevention of diseases with the receipts signature for a certain period PC-5 ID -3 To be able to calculate the amount of remedies for the treatment of animals and for the prevention of diseases with the receipts signature for a certain period, using digital technologies as well PC-5 ID -4 To be able to administer drugs to the animals body in various techniques PC-5 ID -5 To know the methods of pharmacological treatment of sick animals and indications for its administration, in accordance with the guidelines, instructions, manuals, rules of diagnosis, prevention and treatment PC-5 ID -8 To know the ways of drug injections, used both for animals enteral (oral, sublingual and rectal administration) and parenteral (injections, inhalations and skin applications) methods PC-6 The selection of the variety of methods of non-drug therapy, including physiotherapy methods for the treatment of animals, carry out therapeutic, including physiotherapy procedures using special equipment in compliance with safety rules PC-6 ID-1 To be able to use special, both digital therapeutic equipment and physiotherapy procedures, in accordance with its instructions PC-6 ID-2 To be able to fix animals to ensure safety during medical procedures PC-6 ID-3 To be able to maintain patients documentation on diseases and treatment of animals, using digital technologies PC-6 ID-4 To know the types of non-drug therapy, including physiotherapy, used in veterinary medicine, and the clinical signs for its use PC-6 ID-6 To know the safety rules of manipulation with special equipment during non-drug instrumentation for the animals PC-6 ID-7 To know the methods and techniques of non-drug manipulations for the animal					
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		indications for its use in accordance with the guidelines, instructions, manuals, rules of diagnosis, prevention and treatment of animals PC-15 Management of organizational, technical, zootechnical and veterinary measures for the prevention of non-contagious diseases in accordance with the preventive plan, analysis of the effectiveness of measures for the prevention of animal diseases for its improvement PC-15 ID-1 To be able to assess the impact of animal welfare and feeding conditions on its health as part of the implementation of action plans for the prevention of animal diseases using digital technologies PC-15 ID-2 To be able to evaluate the effectiveness of preventive measures and ways to implement them, using digital technologies as well PC-15 ID-4 To be able to perform diagnostic examination of animals within the framework of medical examination for early detection of disease preclinical and clinical signs PC-15 ID-5 To know the types of measures for the prevention of non-contagious animal diseases and metabolic disorders in animals and the requirements for its implementation, in accordance with methodological guidelines, instructions, manuals, rules for the diagnosis, prevention and treatment of animals							
	Total for the 8th semester: 108 hours								
	Practical and lecture classes (8th semester)								
1	Consultations on the preparation of academic case histories, diary reports, completed during the period of work practice. Analysis of interesting cases of animal diseases during practical training	GPC-1 Is able to determine the biological status, normal clinical signs of organs and systems of the animal body GPC-1 ID-1 To know: safety precautions and personal hygiene rules during the examination of animals, methods of its fixation; schemes of clinical examination of an animal and the procedure for examination individual body systems; methodology for diagnosis of the pathological process GPC-1 ID-2 To be able to: collect and analyze anamnesis data, conduct laboratory and functional studies, necessary to determine the animal biological status GPC-1 ID-3 To possess practical skills: for conducting on its own a clinical examination of an animal, using classical research methods and digital technologies	9	3	6	5	1	6	
2	Clinical and laboratory studies of animals with diseases of the urinary system. Classification, syndromatics of diseases of the urinary system. Diagnosis, therapy and prevention of	GPC-1 Is able to determine the biological status, normal clinical signs of organs and systems of the animal body GPC-1 ID-1 To know: safety precautions and personal hygiene rules during the examination of animals, methods of its fixation; schemes of clinical examination of an animal and the procedure for examination individual body systems; methodology for diagnosis of the pathological process GPC-1 ID-2 To be able to: collect and analyze anamnesis data, conduct laboratory and functional studies, necessary to determine the animal biological status GPC-1 ID-3 To possess practical skills: for conducting on its own a clinical examination of an animal, using classical research methods and digital technologies GPC-2 Is able to interpret and evaluate in professional activity the influence of natural, socio-economic, genetic and economic factors on the physiological status of the animal body	9	4	4	3	1	6	

nephritis, nephrosis	GPC-2 ID -1 To know: ecology factors of the environment, its classification and the nature of relationships with living organisms; basic ecological concepts; interspecific relations of animals and plants, terms and bio ecology laws, parasites and hosts; ecological features of some types of pathogenic microorganisms; mechanisms of influence of anthropogenic and economic factors on the animal body GPC-2 ID -2 To be able to: use environmental factors and environmental laws in agricultural manufacture; apply the achievements of modern microbiology and ecology of microorganisms in animal husbandry and veterinary medicine in order to prevent infectious and invasive diseases and treat animals; use environmental monitoring methods in the environmental assessment of agricultural facilities and the production of agricultural products; assess the impact on the animal body, anthropogenic and economic factors PC-3 To set the diagnose based on the analysis of anamnesis, general, special (instrumental) and laboratory research methods PC-3 ID -1 To possess skills to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases PC-3 ID -2 To possess skills to use specialized information databases for the diagnosis of animal diseases PC-3 ID -3 To possess skills to document the results of clinical animal studies, using digital technologies PC-3 ID -4 /To know the methods of interpretation and data analysis of special (instrumental) methods of animal examination PC-3 ID -5 To know the norms of indicators of the status of animals' biological material of different species and the reasons that cause deviations from the norms PC-3 ID -6 To know the etiology and pathogenesis of animal diseases of various species PC-3 ID -7 To know the generally accepted criteria and classifications of animal diseases, approved lists of animals disease PC-5 To carry out plan of animal treatment, based on the stated diagnosis and animals individual characteristics, signature of necessary remedies of chemical and biological nature for the treatment, taking into account combination of its pharmacological effect on the animal body PC-5 ID -1 To be able to use specialized information databases at a choice of animal treatment methods PC-5 ID -2 To be able to calculate the amount of remedies for the treatment of animals and the prevention of diseases with the receipts signature for a certain period PC-5 ID -3 To be able to calculate the amount of remedies for the treatment of animals and for the prevention of diseases with the receipts signature for a certain period, using digital technologies as well PC-5 ID -4 To be able to administer drugs to the animals body in various techniques PC-5 ID -5 To know the methods of pharmacological treatment of sick animals and indications for its administration, in accordance with the guidelines, instructions, manuals, rules of diagnosis, prevention and treatment PC-5 ID -8 To know the ways of drug injections, used both for animals enteral (oral, sublingual and rectal administration) and parenteral (injections, inhalations and skin applications) methods PC-6 The selection of the variety of methods of non-drug therapy, including					
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[illegible]

[illegible]

	within the framework of medical examination for early detection of disease preclinical and clinical signs PC-15 ID-5 To know the types of measures for the prevention of non-contagious animal diseases and metabolic disorders in animals and the requirements for its implementation, in accordance with methodological guidelines, instructions, manuals, rules for the diagnosis, prevention and treatment of animals PC-10 Application of follow-up examinations and studies of animals to assess the effectiveness and safety of the prescribed treatment, detailing of the animal treatment plan (if necessary) based on the results of the evaluation of the treatment effectiveness PC-10 ID -1 To be able to evaluate the effectiveness of treatment PC-10 ID -2 To be able to use specialized information databases when choosing ways for treat animal diseases PC-10 ID -3 To know the methods of drug treatment of sick animals and indications for its use in accordance with the guidelines, instructions, manuals, rules of diagnosis, prevention and treatment of animals PC-15 Management of organizational, technical, zootechnical and veterinary measures for the prevention of non-contagious diseases in accordance with the preventive plan, analysis of the effectiveness of measures for the prevention of animal diseases for its improvement PC-15 ID-1 To be able to assess the impact of animal welfare and feeding conditions on its health as part of the implementation of action plans for the prevention of animal diseases using digital technologies PC-15 ID-2 To be able to evaluate the effectiveness of preventive measures and ways to implement them, using digital technologies as well PC-15 ID-4 To be able to perform diagnostic examination of animals within the framework of medical examination for early detection of disease preclinical and clinical signs PC-15 ID-5 To know the types of measures for the prevention of non-contagious animal diseases and metabolic disorders in animals and the requirements for its implementation, in accordance with methodological guidelines, instructions, manuals, rules for the diagnosis, prevention and treatment of animals							
4	Diseases of the blood system. Laboratory blood tests. Clinical analysis of the results of examination of sick animals with clinical signs of anemia. Diagnosis, therapy and prevention of anemia. Diagnosis, treatment and prevention of hemorrhagic diathesis	GPC-1 Is able to determine the biological status, normal clinical signs of organs and systems of the animal body GPC-1 ID-1 To know: safety precautions and personal hygiene rules during the examination of animals, methods of its fixation; schemes of clinical examination of an animal and the procedure for examination individual body systems; methodology for diagnosis of the pathological process GPC-1 ID -2 To be able to: collect and analyze anamnesis data, conduct laboratory and functional studies, necessary to determine the animal biological status GPC-1 ID -3 To possess practical skills: for conducting on its own a clinical examination of an animal, using classical research methods and digital technologies GPC-2 Is able to interpret and evaluate in professional activity the influence of natural, socio-economic, genetic and economic factors on the physiological status of the animal body GPC-2 ID -1 To know: ecology factors of the environment, its classification and the nature of relationships with living organisms; basic ecological concepts; interspecific relations of animals and plants, terms and bio ecology laws, parasites and hosts; ecological features of some types of pathogenic microorganisms;	9	3	4	3	1	6

					biological nature for the treatment, taking into account combination of its pharmacological effect on the animal body PC-5 ID -1 To be able to use specialized information databases at a choice of animal treatment methods PC-5 ID -2 To be able to calculate the amount of remedies for the treatment of animals and the prevention of diseases with the receipts signature for a certain period PC-5 ID -3 To be able to calculate the amount of remedies for the treatment of animals and for the prevention of diseases with the receipts signature for a certain period, using digital technologies as well PC-5 ID -4 To be able to administer drugs to the animals body in various techniques PC-5 ID -5 To know the methods of pharmacological treatment of sick animals and indications for its administration, in accordance with the guidelines, instructions, manuals, rules of diagnosis, prevention and treatment PC-5 ID -8 To know the ways of drug injections, used both for animals enteral (oral, sublingual and rectal administration) and parenteral (injections, inhalations and skin applications) methods PC-6 The selection of the variety of methods of non-drug therapy, including physiotherapy methods for the treatment of animals, carry out therapeutic, including physiotherapy procedures using special equipment in compliance with safety rules PC-6 ID-1 To be able to use special, both digital therapeutic equipment and physiotherapy procedures, in accordance with its instructions PC-6 ID-2 To be able to fix animals to ensure safety during medical procedures PC-6 ID-3 To be able to maintain patients documentation on diseases and treatment of animals, using digital technologies PC-6 ID-4 To know the types of non-drug therapy, including physiotherapy, used in veterinary medicine, and the clinical signs for its use PC-6 ID-6 To know the safety rules of manipulation with special equipment during non-drug instrumentation for the animals PC-6 ID-7 To know the methods and techniques of non-drug manipulations for the animal PC-6 ID-8 To know forms and rules for filling out the journal for the registration of sick animals and the animal's medical history in accordance with the requirements of veterinary legislation, in digital format as well PC-15 Management of organizational, technical, zootechnical and veterinary measures for the prevention of non-contagious diseases in accordance with the preventive plan, analysis of the effectiveness of measures for the prevention of animal diseases for its improvement PC-15 ID-1 To be able to assess the impact of animal welfare and feeding conditions on its health as part of the implementation of action plans for the prevention of animal diseases using digital technologies PC-15 ID-2 To be able to evaluate the effectiveness of preventive measures and ways to implement them, using digital technologies as well PC-15 ID-4 To be able to perform diagnostic examination of animals within the framework of medical examination for early detection of disease preclinical and clinical signs PC-15 ID-5 To know the types of measures for the prevention of non-contagious animal diseases and metabolic disorders in animals and the requirements				
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	for its implementation, in accordance with methodological guidelines, instructions, manuals, rules for the diagnosis, prevention and treatment of animals PC-10 Application of follow-up examinations and studies of animals to assess the effectiveness and safety of the prescribed treatment, detailing of the animal treatment plan (if necessary) based on the results of the evaluation of the treatment effectiveness PC-10 ID -1 To be able to evaluate the effectiveness of treatment PC-10 ID -2 To be able to use specialized information databases when choosing ways for treat animal diseases PC-10 ID -3 To know the methods of drug treatment of sick animals and indications for its use in accordance with the guidelines, instructions, manuals, rules of diagnosis, prevention and treatment of animals PC-15 Management of organizational, technical, zootechnical and veterinary measures for the prevention of non-contagious diseases in accordance with the preventive plan, analysis of the effectiveness of measures for the prevention of animal diseases for its improvement PC-15 ID-1 To be able to assess the impact of animal welfare and feeding conditions on its health as part of the implementation of action plans for the prevention of animal diseases using digital technologies PC-15 ID-2 To be able to evaluate the effectiveness of preventive measures and ways to implement them, using digital technologies as well PC-15 ID-4 To be able to perform diagnostic examination of animals within the framework of medical examination for early detection of disease preclinical and clinical signs PC-15 ID-5 To know the types of measures for the prevention of non-contagious animal diseases and metabolic disorders in animals and the requirements for its implementation, in accordance with methodological guidelines, instructions, manuals, rules for the diagnosis, prevention and treatment of animals GPC-1 Is able to determine the biological status, normal clinical signs of organs and systems of the animal body GPC-1 ID-1 To know: safety precautions and personal hygiene rules during the examination of animals, methods of its fixation; schemes of clinical examination of an animal and the procedure for examination individual body systems; methodology for diagnosis of the pathological process GPC-1 ID -2 To be able to: collect and analyze anamnesis data, conduct laboratory and functional studies, necessary to determine the animal biological status GPC-1 ID -3 To possess practical skills: for conducting on its own a clinical examination of an animal, using classical research methods and digital technologies GPC-2 Is able to interpret and evaluate in professional activity the influence of natural, socio-economic, genetic and economic factors on the physiological status of the animal body GPC-2 ID -1 To know: ecology factors of the environment, its classification and the nature of relationships with living organisms; basic ecological concepts; interspecific relations of animals and plants, terms and bio ecology laws, parasites and hosts; ecological features of some types of pathogenic microorganisms; mechanisms of influence of anthropogenic and economic factors on the animal body GPC-2 ID -2 To be able to: use environmental factors and environmental laws in agricultural manufacture; apply the achievements of modern microbiology and ecology of microorganisms in animal husbandry and veterinary medicine in										
6	Ketoses of farm animals (etiology, diagnosis, treatment and prevention) Diagnosis, treatment and prevention of pasture tetany and myoglobinuria. Diagnosis, therapy and prevention of osteodystrophy. Diagnosis, treatment and prevention of microelephantosis in animals					9	3	4	3	1	6

					order to prevent infectious and invasive diseases and treat animals; use environmental monitoring methods in the environmental assessment of agricultural facilities and the production of agricultural products; assess the impact on the animal body, anthropogenic and economic factors
					PC-3 To set the diagnose based on the analysis of anamnesis, general, special (instrumental) and laboratory research methods
					PC-3 ID -1 To possess skills to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases
					PC-3 ID -2 To possess skills to use specialized information databases for the diagnosis of animal diseases
					PC-3 ID -3 To possess skills to document the results of clinical animal studies, using digital technologies
					PC-3 ID -4 /To know the methods of interpretation and data analysis of special (instrumental) methods of animal examination
					PC-3 ID -5 To know the norms of indicators of the status of animals' biological material of different species and the reasons that cause deviations from the norms
					PC-3 ID -6 To know the etiology and pathogenesis of animal diseases of various species
					PC-3 ID -7 To know the generally accepted criteria and classifications of animal diseases, approved lists of animals disease
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					PC-5 ID -1 To be able to use specialized information databases at a choice of animal treatment methods
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					PC-5 ID -3 To be able to calculate the amount of remedies for the treatment of animals and for the prevention of diseases with the receipts signature for a certain period, using digital technologies as well
					PC-5 ID -4 To be able to administer drugs to the animals body in various techniques
					PC-5 ID -5 To know the methods of pharmacological treatment of sick animals and indications for its administration, in accordance with the guidelines, instructions, manuals, rules of diagnosis, prevention and treatment
					PC-5 ID -8 To know the ways of drug injections, used both for animals enteral (oral, sublingual and rectal administration) and parenteral (injections, inhalations and skin applications) methods
					PC-6 The selection of the variety of methods of non-drug therapy, including physiotherapy methods for the treatment of animals, carry out therapeutic, including physiotherapy procedures using special equipment in compliance with safety rules
					PC-6 ID -1 To be able to use special, both digital therapeutic equipment and physiotherapy procedures, in accordance with its instructions
					PC-6 ID -2 To be able to fix animals to ensure safety during medical procedures
					PC-6 ID -3 To be able to maintain patients documentation on diseases and treatment of animals, using digital technologies

7	Diagnosis, therapy and prevention of anemia and hyperemia of the brain and its membranes, heat and sunstroke. Diagnosis, therapy and prevention of inflammation of the brain and its membranes. Diagnosis, treatment and prevention of neuroses and stress in animals	manuals, rules for the diagnosis, prevention and treatment of animals GPC-1 Is able to determine the biological status, normal clinical signs of organs and systems of the animal body GPC-1 ID-1 To know: safety precautions and personal hygiene rules during the examination of animals, methods of its fixation; schemes of clinical examination of an animal and the procedure for examination individual body systems; methodology for diagnosis of the pathological process GPC-1 ID-2 To be able to: collect and analyze anamnesis data, conduct laboratory and functional studies, necessary to determine the animal biological status GPC-1 ID-3 To possess practical skills: for conducting on its own a clinical examination of an animal, using classical research methods and digital technologies GPC-2 Is able to interpret and evaluate in professional activity the influence of natural, socio-economic, genetic and economic factors on the physiological status of the animal body GPC-2 ID-1 To know: ecology factors of the environment, its classification and the nature of relationships with living organisms; basic ecological concepts; interspecific relations of animals and plants, terms and bio ecology laws, parasites and hosts; ecological features of some types of pathogenic microorganisms; mechanisms of influence of anthropogenic and economic factors on the animal body GPC-2 ID-2 To be able to: use environmental factors and environmental laws in agricultural manufacture; apply the achievements of modern microbiology and ecology of microorganisms in animal husbandry and veterinary medicine in order to prevent infectious and invasive diseases and treat animals; use environmental monitoring methods in the environmental assessment of agricultural facilities and the production of agricultural products; assess the impact on the animal body, anthropogenic and economic factors PC-3 To set the diagnose based on the analysis of anamnesis, general, special (instrumental) and laboratory research methods PC-3 ID-1 To possess skills to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases PC-3 ID-2 To possess skills to use specialized information databases for the diagnosis of animal diseases PC-3 ID-3 To possess skills to document the results of clinical animal studies, using digital technologies PC-3 ID-4 /To know the methods of interpretation and data analysis of special (instrumental) methods of animal examination PC-3 ID-5 To know the norms of indicators of the status of animals' biological material of different species and the reasons that cause deviations from the norms PC-3 ID-6 To know the etiology and pathogenesis of animal diseases of various species PC-3 ID-7 To know the generally accepted criteria and classifications of animal diseases, approved lists of animals disease PC-5 To carry out plan of animal treatment, based on the stated diagnosis and animals individual characteristics, signature of necessary remedies of chemical and biological nature for the treatment, taking into account combination of its pharmacological effect on the animal body PC-5 ID-1 To be able to use specialized information databases at a choice of animal treatment methods	9	3	4	3	1	6
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	treatment plan (if necessary) based on the results of the evaluation of the treatment effectiveness PC-10 ID -1 To be able to evaluate the effectiveness of treatment PC-10 ID -2 To be able to use specialized information databases when choosing ways to treat animal diseases PC-10 ID -3 To know the methods of drug treatment of sick animals and indications for its use in accordance with the guidelines, instructions, manuals, rules of diagnosis, prevention and treatment of animals PC-15 Management of organizational, technical, zootechnical and veterinary measures for the prevention of non-contagious diseases in accordance with the preventive plan, analysis of the effectiveness of measures for the prevention of animal diseases for its improvement PC-15 ID-1 To be able to assess the impact of animal welfare and feeding conditions on its health as part of the implementation of action plans for the prevention of animal diseases using digital technologies PC-15 ID-2 To be able to evaluate the effectiveness of preventive measures and ways to implement them, using digital technologies as well PC-15 ID-4 To be able to perform diagnostic examination of animals within the framework of medical examination for early detection of disease preclinical and clinical signs PC-15 ID-5 To know the types of measures for the prevention of non-contagious animal diseases and metabolic disorders in animals and the requirements for its implementation, in accordance with methodological guidelines, instructions, manuals, rules for the diagnosis, prevention and treatment of animals							
8	GPC-1 Is able to determine the biological status, normal clinical signs of organs and systems of the animal body GPC-1 ID-1 To know: safety precautions and personal hygiene rules during the examination of animals, methods of its fixation; schemes of clinical examination of an animal and the procedure for examination individual body systems: methodology for diagnosis of the pathological process GPC-1 ID -2 To be able to: collect and analyze anamnesis data, conduct laboratory and functional studies, necessary to determine the animal biological status GPC-1 ID -3 To possess practical skills: for conducting on its own a clinical examination of an animal, using classical research methods and digital technologies GPC-2 Is able to interpret and evaluate in professional activity the influence of natural, socio-economic, genetic and economic factors on the physiological status of the animal body GPC-2 ID -1 To know: ecology factors of the environment, its classification and the nature of relationships with living organisms; basic ecological concepts; interspecific relations of animals and plants, terms and bio ecology laws, parasites and hosts; ecological features of some types of pathogenic microorganisms; mechanisms of influence of anthropogenic and economic factors on the animal body GPC-2 ID -2 To be able to: use environmental factors and environmental laws in agricultural manufacture; apply the achievements of modern microbiology and ecology of microorganisms in animal husbandry and veterinary medicine in order to prevent infectious and invasive diseases and treat animals; use environmental monitoring methods in the environmental assessment of agricultural facilities and the production of agricultural products; assess the impact on the animal body, anthropogenic and economic factors	9	4	4	3	1	6	

						PC-3 To set the diagnose based on the analysis of anamnesis, general, special (instrumental) and laboratory research methods PC-3 ID -1 To possess skills to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases PC-3 ID -2 To possess skills to use specialized information databases for the diagnosis of animal diseases PC-3 ID -3 To possess skills to document the results of clinical animal studies, using digital technologies PC-3 ID -4 /To know the methods of interpretation and data analysis of special (instrumental) methods of animal examination PC-3 ID -5 To know the norms of indicators of the status of animals' biological material of different species and the reasons that cause deviations from the norms PC-3 ID -6 To know the etiology and pathogenesis of animal diseases of various species PC-3 ID -7 To know the generally accepted criteria and classifications of animal diseases, approved lists of animals disease PC-5 To carry out plan of animal treatment, based on the stated diagnosis and animals individual characteristics, signature of necessary remedies of chemical and biological nature for the treatment, taking into account combination of its pharmacological effect on the animal body PC-5 ID -1 To be able to use specialized information databases at a choice of animal treatment methods PC-5 ID -2 To be able to calculate the amount of remedies for the treatment of animals and the prevention of diseases with the receipts signature for a certain period PC-5 ID -3 To be able to calculate the amount of remedies for the treatment of animals and for the prevention of diseases with the receipts signature for a certain period, using digital technologies as well PC-5 ID -4 To be able to administer drugs to the animals body in various techniques PC-5 ID -5 To know the methods of pharmacological treatment of sick animals and indications for its administration, in accordance with the guidelines, instructions, manuals, rules of diagnosis, prevention and treatment PC-5 ID -8 To know the ways of drug injections, used both for animals enteral (oral, sublingual and rectal administration) and parenteral (injections, inhalations and skin applications) methods PC-6 The selection of the variety of methods of non-drug therapy, including physiotherapy methods for the treatment of animals, carry out therapeutic, including physiotherapy procedures using special equipment in compliance with safety rules PC-6 ID-1 To be able to use special, both digital therapeutic equipment and physiotherapy procedures, in accordance with its instructions PC-6 ID-2 To be able to fix animals to ensure safety during medical procedures PC-6 ID-3 To be able to maintain patients documentation on diseases and treatment of animals, using digital technologies PC-6 ID-4 To know the types of non-drug therapy, including physiotherapy, used in veterinary medicine, and the clinical signs for its use PC-6 ID-6 To know the safety rules of manipulation with special equipment during non-drug instrumentation for the animals
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	PC-6 ID-7 To know the methods and techniques of non-drug manipulations for the animal PC-6 ID-8 To know forms and rules for filling out the journal for the registration of sick animals and the animal's medical history in accordance with the requirements of veterinary legislation, in digital format as well PC-15 Management of organizational, technical, zootechnical and veterinary measures for the prevention of non-contagious diseases in accordance with the preventive plan, analysis of the effectiveness of measures for the prevention of animal diseases for its improvement PC-15 ID-1 To be able to assess the impact of animal welfare and feeding conditions on its health as part of the implementation of action plans for the prevention of animal diseases using digital technologies PC-15 ID-2 To be able to evaluate the effectiveness of preventive measures and ways to implement them, using digital technologies as well PC-15 ID-4 To be able to perform diagnostic examination of animals within the framework of medical examination for early detection of disease preclinical and clinical signs PC-15 ID-5 To know the types of measures for the prevention of non-contagious animal diseases and metabolic disorders in animals and the requirements for its implementation, in accordance with methodological guidelines, instructions, manuals, rules for the diagnosis, prevention and treatment of animals PC-10 Application of follow-up examinations and studies of animals to assess the effectiveness and safety of the prescribed treatment, detailisation of the animal treatment plan (if necessary) based on the results of the evaluation of the treatment effectiveness PC-10 ID -1 To be able to evaluate the effectiveness of treatment PC-10 ID -2 To be able to use specialized information databases when choosing ways for treat animal diseases PC-10 ID -3 To know the methods of drug treatment of sick animals and indications for its use in accordance with the guidelines, instructions, manuals, rules of diagnosis, prevention and treatment of animals PC-15 Management of organizational, technical, zootechnical and veterinary measures for the prevention of non-contagious diseases in accordance with the preventive plan, analysis of the effectiveness of measures for the prevention of animal diseases for its improvement PC-15 ID-1 To be able to assess the impact of animal welfare and feeding conditions on its health as part of the implementation of action plans for the prevention of animal diseases using digital technologies PC-15 ID-2 To be able to evaluate the effectiveness of preventive measures and ways to implement them, using digital technologies as well PC-15 ID-4 To be able to perform diagnostic examination of animals within the framework of medical examination for early detection of disease preclinical and clinical signs PC-15 ID-5 To know the types of measures for the prevention of non-contagious animal diseases and metabolic disorders in animals and the requirements for its implementation, in accordance with methodological guidelines, instructions, manuals, rules for the diagnosis, prevention and treatment of animals						
Total hours (9th semester): 144 hours	27	34	26	8	49		

6. THE LIST OF EDUCATIONAL AND METHODOLOGICAL SUPPORT FOR STUDENTS' SELF WORK

6.1. Guidelines for self-work

1. Donskaya, T. K. Methodological recommendations on the organization of independent work on the discipline "Internal non-communicable diseases" for students of the Faculty of Veterinary Medicine studying in the specialty 05/36.01 "Veterinary Medicine" / Donskaya T. K., Vinnikova S. V. - St. Petersburg: SPbGAVM. - 2017. - 26 p. - URL: <https://e.lanbook.com/book/137598> (date of application 04/27/2024).

2. Kulyakov, G.V. Medical examination of farm animals: Methodological recommendations for students of the 4th-5th year of the full-time and correspondence Faculty of Veterinary Medicine, veterinarians of the Faculty of Advanced Training / Kulyakov G. V.; SPbGAVM. - St. Petersburg: SPbGAVM. 2012. - 19 p. - URL: <https://clck.ru/ebtjN> (accessed 04/27/2024).

6.2. Literature for self-work

1. Dictionary of veterinary terms on clinical diagnosis and internal non-infectious diseases: Textbook / Korobov A.V., Savinkov A.V., Vorobyov A.V. [et al.]. - St. Petersburg: Lan Publishing House, 2007. - 320 p. - (Textbooks for universities. Special literature).

2. Handbook of a veterinary therapist: textbook / G. G. Shcherbakov, N. V. Danilevskaya, S. V. Starchenkov [et al.]. - 5th ed., ispr. and add. - St. Petersburg: Lan. - 2021. - 656 p. - URL: <https://e.lanbook.com/book/167796> (date of reference 04/27/2024).

3. Non-infectious diseases of dogs and cats / Lebedev A.V., Starchenkov S. V., Khokhrin S. N., Shcherbakov G. G. - St. Petersburg: Giord. - 2000. - 294 p.: ill.

4. Internal diseases of animals / Edited by G. G. Shcherbakov, A.V. Korobov. - Moscow: Lan. - 2002. - 736 p. - (Textbooks for universities. Special literature).

7. THE LIST OF BASIC AND ADDITIONAL LITERATURE NECESSARY FOR THE EDUCATION OF THE DISCIPLINE

7.1. Basic literature

1. Internal diseases of animals / edited by G. G. Shcherbakov, A.V. Korobov. - Moscow: Lan, 2002. - 736 p. - (Textbooks for universities. Special literature).

2. Internal diseases of animals: textbook for universities / G. G. Shcherbakov, A.V. Yashin, A. P. Kurdeko [et al.]; under the general editorship of G. G. Shcherbakov [et al.]. - 5th ed., erased. - St. Petersburg: Lan. - 2021. - 716 p. - URL: <https://e.lanbook.com/book/159528> (date of reference: 04/27/2024).

3. Workshop on internal diseases of animals / Edited by G.G. Shcherbakov, A.V. Korobov. - St. Petersburg: Lan. - 2003. - 544 p.: ill. - (Textbooks for universities. Special literature).

4. Workshop on internal diseases of animals: textbook / G. G. Shcherbakov [et al.]; under the general editorship of G. G. Shcherbakov [et al.]. - 3rd ed., erased. - St. Petersburg: Lan, 2020. - 544 p. - URL: <https://e.lanbook.com/book/139263> (accessed 04/27/2024).

7.2. Additional literature

1. Prevention of non-communicable diseases of productive animals: method. the manual / comp.: A.V. Yashin [et al.]; SPbGAVM. - St. Petersburg: SPbGAVM. - 2016. - 35 p. - URL: <https://clck.ru/ebvtk> (date of application 04/27/2024).

2. Non-infectious pathology of cattle in farms with industrial technology: textbook / A.V. Yashin, G. G. Shcherbakov, I. I. Kalyuzhny [et al.]; under the general editorship of A.V. Yashin. – St. Petersburg: Lan. – 2019. – 2020 p. – URL: <https://e.lanbook.com/book/125722> (date of application: 04/27/2024).

8.THE LIST OF RESOURCES OF THE INFORMATION AND TELECOMMUNICATION NETWORK "INTERNET" NECESSARY FOR EDUCATION OF THE DISCIPLINE

To prepare for laboratory classes and perform self-work, students can use the following online resources:

Electronic library systems

1. ELS "SPBGUVM"
2. ELS "Lan Publishing House"
3. Legal reference system "ConsultantPlus"
4. University information system "RUSSIA"
5. Full-text database POLPRED.COM
6. Scientific electronic Library ELIBRARY.RU
7. Russian Scientific Network
8. Database of international scientific citation indexes Web of Science
9. Scopus database of International Science Citation Indexes
10. Full-text interdisciplinary database on agricultural and environmental sciences ProQuest AGRICULTURAL AND ENVIRONMENTAL SCIENCE DATABASE
11. Electronic books of the publishing house "Prospekt Nauki" <http://prospektnauki.ru/ebooks/>
12. Collection "Agriculture. Veterinary medicine" publishing house "Quadro" ELS "Elibris" publishing house "Quadro" <https://elibrica.com/>

9. METHODOLOGICAL GUIDELINES FOR STUDENTS ON EDUCATION OF THE DISCIPLINE

Methodological recommendations for students are a set of recommendations and explanations that allow the student to optimally organize the process of studying this discipline.

The content of the methodological recommendations, as a rule, may include:

- Tips on planning and organizing the time needed to study the discipline. Description of the sequence of actions of the student, or the "scenario of studying the discipline".

Morning time is the most fruitful for academic work (from 8-14 o'clock), followed by afternoon time (from 16-19 o'clock) and evening time (from 20-24 o'clock). The most difficult material is recommended to be studied at the beginning of each time interval after rest. After 1.5 hours of work, a break is required (10-15 minutes), after 4 hours of work, the break should be 1 hour. Part of the scientific organization of labor is the mastery of the technique of mental labor. Normally, a student should devote about 10 hours a day to studying (6 hours at university, 4 hours at home).

- Recommendations for working with literature.

Working with literature is an important stage of the student's independent work on mastering the subject, contributing not only to the consolidation of knowledge, but also to the expansion of horizons, mental abilities, memory, the ability to think, express and confirm their hypotheses and ideas. In addition, the skills of research work necessary for further professional activity are being developed.

When starting to study the literature on the topic, it is necessary to make notes, extracts, notes. It is mandatory to take notes of the works of theorists, which allow us to comprehend the

theoretical basis of the study. For the rest, you can limit yourself to extracts from the studied sources. All extracts and quotations must have the exact "return address" (author, title of the work, year of publication, page, etc.). It is advisable to write an abbreviated title of the question to which the extract or quotation refers. In addition, it is necessary to learn how to immediately compile a file of special literature and publications of sources, both proposed by the teacher and identified independently, as well as refer to bibliographic reference books, chronicles of journal articles, book chronicles, abstract journals. At the same time, publications of sources (articles, book titles, etc.) should be written on separate cards, which must be filled in according to the rules of bibliographic description (surname, initials of the author, title of the work. Place of publication, publisher, year of publication, number of pages, and for journal articles – the name of the journal, year of publication, page numbers). On each card, it is advisable to record the thought of the author of the book or a fact from this book on only one specific issue. If the work, even in the same paragraph or phrase, contains more judgments or facts on another issue, then they should be written out on a separate card. The presentation should be concise, accurate, without subjective assessments. On the back of the card, you can make your own notes about this book or article, its content, structure, on which sources it is written, etc.

- Explanations about working with control and test materials for the course, recommendations for completing homework.

Testing allows you to determine whether the actual behavior of the program corresponds to the expected one by performing a specially selected set of tests. A test is the fulfillment of certain conditions and actions necessary to verify the operation of the function under test or part of it. Each question in the discipline must be answered correctly by choosing one option.

- Recommendations for the implementation of course work (if it is assumed by the curriculum), defining their thematic focus, goals and objectives of implementation, requirements for the content, volume, design and organization of guidance for their preparation by departments and teachers.

According to the guidelines provided in the list of guidelines.

10. EDUCATIONAL SOCIAL WORK

As part of the implementation of the discipline, educational work is carried out to form a modern scientific worldview and a system of basic values, the formation and development of spiritual and moral, civil and patriotic values, a system of aesthetic and ethical knowledge and values, attitudes of tolerant consciousness in society, the formation of students' need for work as the first vital necessity, the highest value and the main way to achieve success in life, to realize the social significance of your future profession.

11. THE LIST OF INFORMATION TECHNOLOGIES USED IN THE IMPLEMENTATION OF THE EDUCATIONAL PROCESS

11.1 Information technologies

For the educational process of the discipline is previewed the use of information technologies:

- practical classes using multimedia;
- interactive technologies (dialogues, collective discussion on various topics for realization a particular educational and professional task);
- interaction with students via e - mail;
- community work in the electronic information and educational environment of St. Petersburg State University: <https://spbguv.ru/academy/eios/>

11.2. Software

The list of licensed and free- distributed software, including national programs

№ п/п	Technical and computer programs recommended by sections and topics of the program	License
1	MS PowerPoint	67580828
2	LibreOffice	free software
3	OS Alt Education	AAO.0022.00
4	ABIS " MARK-SQL"	02102014155
5	MS Windows 10	67580828
6	System Consult Plus	503/KJI
7	Android OS	free software

12. THE MATERIAL AND TECHNICAL BASE NECESSARY FOR THE IMPLEMENTATION OF THE DISCIPLINE EDUCATIONAL PROCESS.

No. p / p	The name of the subject, discipline (module) in accordance with the curriculum	The name of equipped lecture halls with a list of basic equipment	The actual address of classrooms and facilities
1	Internal non-communicable diseases	1.Study rooms 102,103,104,107 Educational furniture: seats according to the number of students; teacher's workplace; cabinets, stands, multimedia projector, laptop. 2. Specialized tools: probes: Khokhlova, oral-gastric for large and small animals, magnetic: Meliksetyana, Korobova (ZMU-1); ultrasound diagnostic apparatus; metal indicator; magnetic rings; fixation materials (ropes, bandages, muzzles, yawners, Garms forceps, Bayer wedge, mouth, etc.); syringes: 1,0; 2,0; 5,0; 10,0; 20,0; 50,0; 100,0; 250,0 ml; injection needles, needles for blood collection; gloves; bathrobes;; syringes, Esmarch mugs for enemas; sets for compresses; cotton wool; bandages; funnels; urinary catheters; trocars small and large; electrocardiograph "Baby". 108. Laboratory: laboratory equipment and reagents for the study of blood, urine, feces according to the methods, simulators for practicing manipulations	St. Petersburg, Chernihiv str., 5, Department of Internal Diseases of Animals named after Sineva A.V.

Developers:

Head of the Department of Internal
Diseases of Animals named after Sinev A.V.
Doctor of Veterinary Sciences



Prusakov A.V.

Candidate of Veterinary Sciences, Assistant of the
Department



Golodyaeva M.S.

Ministry of Agriculture of the Russian Federation
Federal State Budgetary Educational Institution
of higher education
"Saint Petersburg State University of Veterinary Medicine"

Department of Internal Diseases of animals named after A. V. Sinev

FUND OF ASSESMENT TOOLS
for the discipline
" INTERNAL NON-COMMUNICABLE DISEASES "

Level of higher education
SPECIALIST COURSE

Specialty 36.05.01 Veterinary medicine
Full-time education.

Education starts in 2024.

Saint Petersburg
2024

1. PASSPORT OF THE FUND OF ASSESMENT TOOLS

Index	Content
GPC-1	Is able to determine the biological status, normal clinical signs of organs and systems of the animal body
GPC-1 ID-1	To know: safety precautions and personal hygiene rules during the examination of animals, methods of its fixation; schemes of clinical examination of an animal and the procedure for examination individual body systems; methodology for diagnosis of the pathological process
GPC-1 ID-2	To be able to: collect and analyze anamnesis data, conduct laboratory and functional studies, necessary to determine the animal biological status
GPC-1 ID-3	To possess practical skills: for conducting on its own a clinical examination of an animal, using classical research methods and digital technologies
GPC-2	Is able to interpret and evaluate in professional activity the influence of natural, socio-economic, genetic and economic factors on the physiological status of the animal body
GPC-2 ID-1	To know: ecology factors of the environment, its classification and the nature of relationships with living organisms; basic ecological concepts; interspecific relations of animals and plants, terms and bio ecology laws, parasites and hosts; ecological features of some types of pathogenic microorganisms; mechanisms of influence of anthropogenic and economic factors on the animal body
GPC-2 ID-2	To be able to: use environmental factors and environmental laws in agricultural manufacture; apply the achievements of modern microbiology and ecology of microorganisms in animal husbandry and veterinary medicine in order to prevent infectious and invasive diseases and treat animals; use environmental monitoring methods in the environmental assessment of agricultural facilities and the production of agricultural products; assess the impact on the animal body, anthropogenic and economic factors
PC-3	To set the diagnose based on the analysis of anamnesis, general, special (instrumental) and laboratory research methods
PC-3 ID-1	To possess skills to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases
PC-3 ID-2	To possess skills to use specialized information databases for the diagnosis of animal diseases
PC-3 ID-3	To possess skills to document the results of clinical animal studies, using digital technologies
PC-3 ID-4	/To know the methods of interpretation and data analysis of special (instrumental) methods of animal examination
PC-3 ID-5	To know the norms of indicators of the status of animals' biological material of different species and the reasons that cause deviations from the norms
PC-3 ID-6	To know the etiology and pathogenesis of animal diseases of various species
PC-3 ID-7	To know the generally accepted criteria and classifications of animal diseases, approved lists of animals disease
PC-5	To carry out plan of animal treatment, based on the stated diagnosis and animals individual characteristics, signature of necessary remedies of chemical and biological nature for the treatment, taking into account combination of its pharmacological effect on the animal body
PC-5	To be able to use specialized information databases at a choice of animal treatment methods

ID -1	
PC-5	To be able to calculate the amount of remedies for the treatment of animals and the prevention of diseases with the receipts signature for a certain period
ID -2	
PC-5	To be able to calculate the amount of remedies for the treatment of animals and for the prevention of diseases with the receipts signature for a certain period, using digital technologies as well
ID -3	
PC-5	To be able to administer drugs to the animals body in various techniques
ID -4	
PC-5	To know the methods of pharmacological treatment of sick animals and indications for its administration, in accordance with the guidelines, instructions, manuals, rules of diagnosis, prevention and treatment
ID -5	
PC-5	To know the ways of drug injections, used both for animals enteral (oral, sublingual and rectal administration) and parenteral (injections, inhalations and skin applications) methods
ID -8	
PC-6	The selection of the variety of methods of non-drug therapy, including physiotherapy methods for the treatment of animals, carry out therapeutic, including physiotherapy procedures using special equipment in compliance with safety rules
	To be able to use special, both digital therapeutic equipment and physiotherapy procedures, in accordance with its instructions
PC-6	
ID -1	
PC-6	To be able to fix animals to ensure safety during medical procedures
ID -2	
PC-6	To be able to maintain patients documentation on diseases and treatment of animals, using digital technologies
ID -3	
PC-6	To know the types of non-drug therapy, including physiotherapy, used in veterinary medicine, and the clinical signs for its use
ID -4	
PC-6	To know the safety rules of manipulation with special equipment during non-drug instrumentation for the animals
ID -6	
PC-6	To know the methods and techniques of non-drug manipulations for the animal
ID -7	
PC-6	To know forms and rules for filling out the journal for the registration of sick animals and the animal's medical history in accordance with the requirements of veterinary legislation, in digital format as well
ID -8	
PC-10	Application of follow-up examinations and studies of animals to assess the effectiveness and safety of the prescribed treatment, detalisation of the animal treatment plan (if necessary) based on the results of the evaluation of the treatment effectiveness
	To be able to evaluate the effectiveness of treatment
PC-10	
ID -1	
PC-10	To be able to use specialized information databases when choosing ways for treat animal diseases
ID -2	
PC-10	To know the methods of drug treatment of sick animals and indications for its use in accordance with the guidelines, instructions, manuals, rules of diagnosis, prevention and treatment of animals
ID -3	

PC-15	Management of organizational, technical, zootechnical and veterinary measures for the prevention of non-contagious diseases in accordance with the preventive plan, analysis of the effectiveness of measures for the prevention of animal diseases for its improvement
PC-15 ID-1	To be able to assess the impact of animal welfare and feeding conditions on its health as part of the implementation of action plans for the prevention of animal diseases using digital technologies
PC-15 ID-2	To be able to evaluate the effectiveness of preventive measures and ways to implement them, using digital technologies as well
PC-15 ID-4	To be able to perform diagnostic examination of animals within the framework of medical examination for early detection of disease preclinical and clinical signs
PC-15 ID-5	To know the types of measures for the prevention of non-contagious animal diseases and metabolic disorders in animals and the requirements for its implementation, in accordance with methodological guidelines, instructions, manuals, rules for the diagnosis, prevention and treatment of animals
PC-17	Drawing up a plan for the medical examination of animals, taking into account its husbandry type, veterinary examinations in order to preserve the health of animals and increase its productivity, development of recommendations for preventive and treatment measures, based on the results of animal study, conducted as part of the veterinary examination
PC-17 ID-1	To be able to perform diagnostic examination of animals within the framework of veterinary study with the use of digital equipment, for early detection of preclinical and clinical signs of the disease
PC-17 ID-2	To know the methodology of veterinary examination of animals in accordance with the actual methodological guidelines
PC-17 ID-3	To know the types of preventive measures of non-contagious animal diseases and metabolic disorders and the requirements for its implementation in accordance with methodological guidelines, instructions, manuals, rules for the diagnosis, prevention and treatment of animals

List of assessment tools

№	Name of the assessment tool	Brief description of the assesment tool	Presentation of the assessment tool in the fund
1.	Colloquium	A means of controlling the assimilation of educational material of a topic, section or sections of a discipline, organized as an educational activity in the form of an interview between a teacher and students	Questions on topics/sections of the discipline
2.	Test	A system of standardized tasks, which allows to automate the assessment of students knowledge and skills	A fund of test assignments
3.	Course paper	A means of testing the ability to apply the acquired knowledge in practice	Topics of reports
4.	Control work	A means of testing the ability to apply acquired knowledge to solve problems of a certain type on a topic or section	A set of response scales
5.	Situational tasks	A means of testing students' ability to apply accumulated knowledge logically	Task Fund
6.	Test	Tool controls the learning material for the semester	Questions on topics/sections of the discipline
7.	Exam	Tool controls the absorbed learning material per year	Questions on topics/sections of the discipline

2. INDICATORS AND CRITERIA FOR ASSESSING COMPETENCIES AT VARIOUS STAGES OF ITS FORMATION, DESCRIPTION OF ASSESSMENT SCALES

Planned results of competence development	The level of development				Evaluation tool
	Unsatisfactory	satisfactory	good	excellent	
• GPC-1. Is able to determine the biological status, normal clinical signs of organs and systems of the animal body					
GPC-1 ID-1 To know: safety precautions and personal hygiene rules during the examination of animals, methods of its fixation; schemes of clinical examination of an animal and the procedure for examination individual body systems; methodology for diagnosis of the pathological process	The level of knowledge is below the minimum requirements, gross errors have occurred	The minimum acceptable level of knowledge, many blunders have been made	The level of knowledge in the volume corresponding to the training program, several blunders were made	The level of knowledge in the volume corresponding to the training program, without errors	Colloquium, tests, situational tasks
GPC-1 ID-2 To be able to: collect and analyze anamnesis data, conduct laboratory and functional studies, necessary to determine the animal biological status.					
GPC-1 ID-3 To possess practical skills: for conducting on its own a clinical examination of an animal, using classical research methods and digital technologies.					
• GPC-2. Is able to interpret and evaluate in professional activity the influence of natural, socio-economic, genetic and economic factors on the physiological status of the animal body					
GPC-2 ID-1 To know: ecology factors of the environment, its classification and the nature of relationships	Basic skills were not demonstrated when solving standard tasks, and	Basic skills have been demonstrate, typical tasks with minor errors have	All the basic skills have been demonstrate, all the main tasks with	All basic skills have been demonstrate, all basic tasks have	Colloquium, tests, control work

with living organisms; basic ecological concepts; interspecific relations of animals and plants, terms and bio ecology laws, parasites and hosts; ecological features of some types of pathogenic microorganisms; mechanisms of influence of anthropogenic and economic factors on the animal body. GPC-2 ID-2 To be able to: use environmental factors and environmental laws in agricultural manufacture; apply the achievements of modern microbiology and ecology of microorganisms in animal husbandry and veterinary medicine in order to prevent infectious and invasive diseases and treat animals; use environmental monitoring methods in the environmental assessment of agricultural facilities and the production of agricultural products; assess the impact on the animal body, anthropogenic and economic factors	gross errors occurred	been solved, all tasks have been completed, but not in full	minor errors have been solved, all the tasks have been completed in full, but some with flaws	been solved with some minor flaws, and all tasks have been completed in full	
• PC-3. To set the diagnose based on the analysis of anamnesis, general, special (instrumental) and laboratory research methods					
PC-3 ID-1 To possess skills to make a diagnosis in accordance with generally accepted	Basic skills were not demonstrated when solving standard	Basic skills have been demonstrate, typical tasks with minor	All the basic skills have been demonstrate, all the main	All basic skills have been demonstrate, all basic	Colloquium, tests, control work

criteria and classifications, lists of animal diseases. PC-3 ID-2 To possess skills to use specialized information databases for the diagnosis of animal diseases PC-3 ID-3 To possess skills to document the results of clinical animal studies, using digital technologies. PC-3 ID-4 To know the methods of interpretation and data analysis of special (instrumental) methods of animal examination. PC-3 ID-5 To know the norms of indicators of the status of animals' biological material of different species and the reasons that cause deviations from the norms. PC-3 ID-6 To know the etiology and pathogenesis of animal diseases of various species. PC-3 ID-7 To know the generally accepted criteria and classifications of animal diseases, approved lists of animals disease.	tasks, and gross errors occurred	errors have been solved, all tasks have been completed, but not in full	tasks with minor errors have been solved, all the tasks have been completed in full, but some with flaws	tasks have been solved with some minor flaws, and all tasks have been completed in full	
• PC-5. To carry out plan of animal treatment, based on the stated diagnosis and animals individual characteristics, signature of necessary remedies of chemical and biological nature for the treatment, taking into account combination of its pharmacological effect on the animal body					
PC-5 ID-1 To be able to use	Basic skills were not	Basic skills have been	All the basic skills have	All basic skills have	Colloquium,

specialized information databases at a choice of animal treatment methods. PC-5 ID-2 To be able to calculate the amount of remedies for the treatment of animals and the prevention of diseases with the receipts signature for a certain period. PC-5 ID-3 To be able to calculate the amount of remedies for the treatment of animals and for the prevention of diseases with the receipts signature for a certain period, using digital technologies as well. PC-5 ID-4 To be able to administer drugs to the animals body in various techniques. PC-5 ID-5 To know the methods of pharmacological treatment of sick animals and indications for its administration, in accordance with the guidelines, instructions, manuals, rules of diagnosis, prevention and treatment. PC-5 ID-8 To know the ways of drug injections, used both for animals enteral (oral, sublingual and rectal administration) and parenteral (injections,	demonstrated when solving standard tasks, and gross errors occurred	demonstrate, typical tasks with minor errors have been solved, all tasks have been completed, but not in full	been demonstrate, all the main tasks with minor errors have been solved, all the tasks have been completed in full, but some with flaws	been demonstrate, all basic tasks have been solved with some minor flaws, and all tasks have been completed in full	tests, control work
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inhalations and skin applications) methods					
• PC-6. The selection of the variety of methods of non-drug therapy, including physiotherapy methods for the treatment of animals, carry out therapeutic, including physiotherapy procedures using special equipment in compliance with safety rules					
PC-6 ID-1 To be able to use special, both digital therapeutic equipment and physiotherapy procedures, in accordance with its instructions PC-6 ID-2 To be able to fix animals to ensure safety during medical procedures PC-6 ID-3 To be able to maintain patients documentation on diseases and treatment of animals, using digital technologies PC-6 ID-4 To know the types of non-drug therapy, including physiotherapy, used in veterinary medicine, and the clinical signs for its use PC-6 ID-6 To know the methods and techniques of non-drug manipulations for the animal. ПК-6 ид-7 Знать методы фиксации животных при проведении их лечения PC-6 ID-7 To know the methods of animals fixation during treatment.	Basic skills were not demonstrated when solving standard tasks, and gross errors occurred	Basic skills have been demonstrate, typical tasks with minor errors have been solved, all tasks have been completed, but not in full	All the basic skills have been demonstrate, all the main tasks with minor errors have been solved, all the tasks have been completed in full, but some with flaws	All basic skills have been demonstrate, all basic tasks have been solved with some minor flaws, and all tasks have been completed in full	Colloquium, tests, control work

PC-6 ID-8 To know forms and rules for filling out the journal for the registration of sick animals and the animal's medical history in accordance with the requirements of veterinary legislation, in digital format as well.					
PC-10. Application of follow-up examinations and studies of animals to assess the effectiveness and safety of the prescribed treatment, detalisation of the animal treatment plan (if necessary) based on the results of the evaluation of the treatment effectiveness					
PC-10 ID-1 To be able to evaluate the effectiveness of treatment PC-10 ID-2 To be able to use specialized information databases when choosing ways for treat animal diseases PC-10 ID-3 To know the methods of drug treatment of sick animals and indications for its use in accordance with the guidelines, instructions, manuals, rules of diagnosis, prevention and treatment of animals	Basic skills were not demonstrated when solving standard tasks, and gross errors occurred	Basic skills have been demonstrate, typical tasks with minor errors have been solved, all tasks have been completed, but not in full	All the basic skills have been demonstrate, all the main tasks with minor errors have been solved, all the tasks have been completed in full, but some with flaws	All basic skills have been demonstrate, all basic tasks have been solved with some minor flaws, and all tasks have been completed in full	Colloquium, tests, control work
PC-15. Management of organizational, technical, zootechnical and veterinary measures for the prevention of non-contagious diseases in accordance with the preventive plan, analysis of the effectiveness of measures for the prevention of animal diseases for its improvement					
PC-15 ID-1 To be able to assess the impact of animal welfare and feeding conditions on its health as part of the implementation of action plans for the	Basic skills were not demonstrated when solving standard tasks, and gross errors occurred	Basic skills have been demonstrate, typical tasks with minor errors have been solved, all tasks have	All the basic skills have been demonstrate, all the main tasks with minor errors have been	All basic skills have been demonstrate, all basic tasks have been solved with some	Colloquium, tests, control work

prevention of animal diseases using digital technologies PC-15 ID-2 To be able to evaluate the effectiveness of preventive measures and ways to implement them, using digital technologies as well. PC-15 ID-4 To be able to perform diagnostic examination of animals within the framework of medical examination for early detection of disease preclinical and clinical signs. PC-15 ID-5 To know the types of measures for the prevention of non-contagious animal diseases and metabolic disorders in animals and the requirements for its implementation, in accordance with methodological guidelines, instructions, manuals, rules for the diagnosis, prevention and treatment of animals		been completed, but not in full	solved, all the tasks have been completed in full, but some with flaws	minor flaws, and all tasks have been completed in full	
• PC-17. Drawing up a plan for the medical examination of animals, taking into account its husbandry type, veterinary examinations in order to preserve the health of animals and increase its productivity, development of recommendations for preventive and treatment measures, based on the results of animal study, conducted as part of the veterinary examination					
PC-17 ID-1 To be able to perform diagnostic examination of animals within the	Basic skills were not demonstrated when solving standard	Basic skills have been demonstrate, typical tasks with minor	All the basic skills have been demonstrate, all the main	All basic skills have been demonstrate, all basic	Colloquium, tests, control work

framework of veterinary study with the use of digital equipment, for early detection of preclinical and clinical signs of the disease PC-17 ID-2 To know the methodology of veterinary examination of animals in accordance with the actual methodological guidelines PC-17 ID-3 To know the types of preventive measures of non-contagious animal diseases and metabolic disorders and the requirements for its implementation in accordance with methodological guidelines, instructions, manuals, rules for the diagnosis, prevention and treatment of animals	tasks, and gross errors occurred	errors have been solved, all tasks have been completed, but not in full	tasks with minor errors have been solved, all the tasks have been completed in full, but some with flaws	tasks have been solved with some minor flaws, and all tasks have been completed in full	
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3. A LIST OF CONTROL TASKS AND OTHER MATERIALS, NECESSARY FOR THE ASSESSMENT OF KNOWLEDGE, SKILLS AND WORK EXPERIENCE

3.1. Typical tasks for the current control of academic progress

3.1.1. COLLOQUIUM

The competence being formed: GPC-1 (GPC-1 ID-1, GPC-1 ID-2, GPC-1 ID-3) – Is able to determine the biological status, normal clinical signs of organs and systems of the animal body.

1. *Rules for working with animals;*
2. *Methods of fixation of animals;*
3. *Safety precautions when working with animals;*
4. *Methods of clinical animal research;*
5. *Personal hygiene when working with sick animals.*

The competence being formed: GPC-2 (GPC-2 ID-1, GPC-2 ID-2) – Is able to interpret and evaluate in professional activity the influence of natural, socio-economic, genetic and economic factors on the physiological status of the animal body.

1. *What is the scheme of animal research;*
2. *What is the clinical significance of the anamnesis;*
3. *The importance of dietary and herbal medicine;*
4. *Inhalation techniques for large and small pets;*
5. *Socio-economic and natural factors affecting the physiological state of the body;*
6. *Genetic and economic factors affecting the physiological state of the body.*

The competence being formed: PC-3 (PC-3 ID-1, PC-3 ID-2, PC-3 ID-3, PC-3 ID-4, PC-3 ID-5, PC-3 ID-6, PC-3 ID-7) – To set the diagnose based on the analysis of anamnesis, general, special (instrumental) and laboratory research methods.

1. *Principles of veterinary therapy;*
2. *Means and methods of veterinary therapy;*
3. *How to make a diagnosis;*
4. *Diagnosis of diseases of the digestive system.*

The competence being formed: PC-5 (PC-5 ID-1, PC-5 ID-2, PC-5 ID-3, PC-5 ID-4, PC-5 ID-5, PC-5 ID-8) – To carry out plan of animal treatment, based on the stated diagnosis and animals individual characteristics, signature of necessary remedies of chemical and biological nature for the treatment, taking into account combination of its pharmacological effect on the animal body.

1. *The technique of introducing gastric probes to farm animals;*
2. *Introduction of medicines into the respiratory tract and digestive canal;*
3. *Novocaine therapy;*
4. *Expectorant drugs;*
5. *Laxatives;*
6. *Rumination products;*
7. *Medicines for diseases of the digestive system;*
8. *Medicines for diseases of the respiratory system;*
9. *Medications for diseases of the urinary system;*
10. *Medicines for diseases of the cardiovascular system;*
11. *Medicines for diseases of the nervous system;*
12. *Medications for metabolic diseases.*

The competence being formed: PC-6 (PC-6 ID-1, PC-6 ID-2, PC-6 ID-3, PC-6 ID-4, PC-6 ID-6, PC-6 ID-7, PC-6 ID-8) – The selection of the variety of methods of non-drug

therapy, including physiotherapy methods for the treatment of animals, carry out therapeutic, including physiotherapy procedures using special equipment in compliance with safety rules.

1. *Preventive and curative measures in specialized livestock farms (LPH, KFH, SEC, etc.);*

2. *Physioprophylaxis and physiotherapy for internal non-communicable diseases;*

3. *Phototherapy;*

4. *Electrotherapy;*

5. *Fixation of animals for non-drug therapy.*

The competence being formed: PC-10 (PC-10 ID-1, PC-10 ID-2, PC-10 ID-3) –

Application of follow-up examinations and studies of animals to assess the effectiveness and safety of the prescribed treatment, detalisation of the animal treatment plan (if necessary) based on the results of the evaluation of the treatment effectiveness.

1. *Making a preliminary and final diagnosis for internal non-infectious animal diseases;*

2. *Additional and special animal studies;*

3. *The importance of laboratory methods in the diagnosis of internal non-communicable diseases.*

The competence being formed: PC-15 (PC-15 ID-1, PC-15 ID-2, PC-15 ID-4, PC-15 ID-5) – Management of organizational, technical, zootechnical and veterinary measures for the prevention of non-contagious diseases in accordance with the preventive plan, analysis of the effectiveness of measures for the prevention of animal diseases for its improvement.

1. *Preventive measures for diseases of the digestive system;*

2. *Preventive measures for diseases of the respiratory system;*

3. *Preventive measures for diseases of the urinary system;*

4. *Preventive measures for diseases of the cardiovascular system;*

5. *Preventive measures for diseases of the nervous system;*

6. *Preventive measures for metabolic diseases.*

The competence being formed: PC-17 (PC-17 ID-1, PC-17 ID-2, PC-17 ID-3) –

Drawing up a plan for the medical examination of animals, taking into account its husbandry type, veterinary examinations in order to preserve the health of animals and increase its productivity, development of recommendations for preventive and treatment measures, based on the results of animal study, conducted as part of the veterinary examination.

1. *The methodology of medical examination;*

2. *Goals and stages of medical examination;*

3. *Analysis of animal maintenance and feeding.*

3.1.2. TEST QUESTIONS

GPC-1 Is able to determine the biological status, normal clinical signs of organs and systems of the animal body

GPC-1 ID-1 To know: safety precautions and personal hygiene rules during the examination of animals, methods of its fixation; schemes of clinical examination of an animal and the procedure for examination individual body systems; methodology for diagnosis of the pathological process.

1. *What method of fixation is used in cattle?*

1. *By the horns and muzzle with a halter;*

2. *Behind the nasal septum;*

3. *Behind the ear;*

4. *Using muzzles.*

2. *What is the pulse rate of a horse at rest (beats/min)?*

1. 24.0-42.0;
 2. 60,0-90,0;
 3. 32,0-52,0;
 4. 50.0-80.0.
3. *What is the pulse rate of a cow at rest (beats/min)?*
1. 60.0-90.0;
 2. 32,0-52,0;
 3. 50,0-80,0;
 4. 24.0-42.0.
4. *What is the pulse rate of a cat at rest (beats/min)?*
1. 24.0-42.0;
 2. 60,0-90,0;
 3. 110,0-130,0;
 4. 50,0-80,0.
5. *What is the pulse rate of a dog at rest (beats/min)?*
1. 60.0-90.0;
 2. 32,0-52,0;
 3. 50,0-80,0;
 4. 70.0-120.0.
6. *What is the body temperature of cats (0 C)?*
1. 38.5-40.0;
 2. 38,0-40,0;
 3. 40,0-42,0;
 4. 38.0-39.5.
7. *What is the body temperature of dogs (0 C)?*
1. 37.5-39.0;
 2. 38,0-40,0;
 3. 40,0-42,0;
 4. 37.5-38.5.
8. *What is the body temperature of horses (0 C)?*
1. 38.5-40.0;
 2. 38,0-40,0;
 3. 40,0-42,0;
 4. 37.5-38.5.
9. *What is the body temperature of cattle (0 C)?*
1. 37.5-39.5;
 2. 38,0-40,0;
 3. 40,0-42,0;
 4. 37.5-38.5.
10. *What is skin turgor?*
1. Types of skin coloring;
 2. The amount of dandruff on the skin;
 3. The amount of liquid in the skin thickness;
 4. All options are correct.
11. *How to approach a cow correctly?*
1. From the back;
 2. In front;
 3. On the side;
 4. From above.
12. *What should be the treatment of animals?*

1. Harsh;
2. Calm;
3. Sudden;
4. Rude.
13. What kind of animals are not fixed in machines?
 1. Cats;
 2. Horses;
 3. Cattle;
 4. Pigs.
14. What is recommended to give to an animal to increase the penetrating power of aerosols?
 1. Antispasmodics;
 2. Bronchodilators;
 3. Mucolytic agents;
 4. Antimicrobial agents.
15. What types of lamps does the Minin lamp belong to?
 1. Infrared;
 2. To UV;
 3. To the visible;
 4. To mercury.
16. What is not effective as a source of ultraviolet radiation?
 1. Sunlight;
 2. Sollux lamp;
 3. UV lamps;
 4. BUV lamp.
17. How are pigs given intravenous injections?
 1. Into the ear vein;
 2. Into the jugular vein;
 3. Into the external ulnar vein;
 4. Into the femoral vein.
18. How many liters of water are injected into the rectum in adult pigs at one time during macroclysms?
 1. 5.0 liters;
 2. 10.0 L;
 3. 20.0 l;
 4. 0.5 l.
19. Which part of the pig's body should be scratched to facilitate inspection and contact with the animal?
 1. Along the spine.
 2. The belly;
 3. Limbs.
 4. Scratch behind the ears.

GPC-1 ID -2 To be able to: collect and analyze anamnesis data, conduct laboratory and functional studies, necessary to determine the animal biological status.

20. Which research method relates to instrumental diagnostics?
 1. X-ray diagnostics;
 2. General blood test;
 3. Inspection;
 4. Urine culture tank.
21. How to make a diagnosis?

1. Based on the examination;
 2. Comprehensively;
 3. According to laboratory parameters;
 4. According to the ultrasound results.
22. What is considered when choosing an antibiotic for the treatment of pneumonia in the first place?
1. Prescription of the disease;
 2. The nature of the causative agent of infection;
 3. Individual drug intolerance;
 4. Concomitant diseases.
23. Which of the following symptoms does not correspond to the diagnosis of sinusitis?
1. Mucopurulent discharge;
 2. Difficulty breathing;
 3. Box sound with percussion;
 4. Cough.
24. How long after inhalation is it possible to take the animal for a walk?
1. After 20.0 minutes;
 2. After 1.0 hour;
 3. After 2.0-3.0 hours;
 4. It doesn't matter.
25. Which sound during percussion is more typical for croup pneumonia?
1. Blunted tympanitis;
 2. Boxed;
 3. Dumb;
 4. Tympanic.
26. What is the type of breathing in emphysema?
1. Vesicular;
 2. Vesicular weakened;
 3. Vesicular enhanced;
 4. Bronchial.
27. How much liquid should a patient with acute glomerulonephritis consume?
1. Sharply limited;
 2. Limited;
 3. The usual;
 4. A large number.
28. In which area is pleurocentesis performed on the right side in dogs?
1. 6th intercostal space of the upper third of the chest;
 2. 3rd intercostal space in the lower third of the chest;
 3. 6th intercostal space of the lower third of the chest;
 4. In the area of the last intercostal space.
29. In which area of agricultural animals is the suprapleural novocaine blockade performed according to Mosin?
1. 5th intercostal space;
 2. 8th intercostal space;
 3. 2nd lumbar vertebra;
 4. In the area of the last intercostal space.
30. What kind of massage technique does not exist?
1. Stretching;
 2. Pounding;
 3. Rubbing;

4. Vibration.

GPC-1 ID -3 To possess practical skills: for conducting on its own a clinical examination of an animal, using classical research methods and digital technologies.

31. *What is the number of scar contractions in a healthy cow within 5 minutes?*

1. From 3.0 to 5.0;
2. From 8.0 to 16.0;
3. From 2.0 to 7.0;
4. From 16.0 to 20.0.

32. *What is used for oral examination in farm animals?*

1. Mouth guard;
2. Retractor;
3. Yawn;
4. The rope.

33. *What is used to examine the oral cavity of small pets?*

1. Doctor's fingers;
2. Yawn.
3. Sedation.
4. The retractor.

34. *In what pathology do horses fall to the ground, ride on it, periodically assume the position of a sitting dog, intestinal noises are rare, protrusion occurs in the upper third of the 14th-17th ribs?*

1. Enteralgia;
2. Coprostasis;
3. Pylorospasm (acute enlargement of the stomach);
4. Gastritis.

35. *What is not an indication for pericardiocentesis?*

1. Hydropericarditis;
2. Exudative pericarditis;
3. Tamponade of the heart;
4. Dry pericarditis.

36. *What is used to extract a foreign body from the mesh in case of traumatic cow reticulitis?*

1. The Khokhlov probe;
2. Cherkasov probe;
3. MD- 05;
4. Korobov probe (ZMU).

37. *What kind of research is not carried out in the diagnosis of diseases of the urinary system?*

1. MRI;
2. Pleurocentesis;
3. General urine analysis;
4. Bacteriological examination.

38. *Visualization research methods include:*

1. Biopsy;
2. Ultrasound examination;
3. Biochemical tests;
4. General blood test.

39. *What therapy is used for rumen acidosis?*

1. Oxidative;
2. Latching;
3. Neutralizing;

4. Reinforcing.
40. What noises will be heard when the book is blocked?

1. Tympanic;
2. There is no noise;
3. Splashing noises;
4. Friction noises.

The key to the test of competence of the GPC-1 discipline "Internal non-communicable diseases"

Question No.	Right answer	Question No.	Right answer
1	2	21	2
2	1	22	2
3	3	23	3
4	3	24	2
5	4	25	3
6	4	26	2
7	1	27	1
8	4	28	3
9	1	29	4
10	3	30	1
11	3	31	1
12	2	32	3
13	1	33	3
14	2	34	3
15	1	35	4
16	2	36	4
17	1	37	2
18	2	38	2
19	4	39	2
20	1	40	2

GPC-2 Is able to interpret and evaluate in professional activity the influence of natural, socio-economic, genetic and economic factors on the physiological status of the animal body

GPC-2 ID -1 To know: ecology factors of the environment, its classification and the nature of relationships with living organisms; basic ecological concepts; interspecific relations of animals and plants, terms and bio ecology laws, parasites and hosts; ecological features of some types of pathogenic microorganisms; mechanisms of influence of anthropogenic and economic factors on the animal body.

1. What is the name of the device for measuring air humidity?

1. Pulse oximeter;
2. Hygrometer;
3. Gas analyzer;
4. The punch.

2. What applies to the analysis of conditions of detention during medical examination?

1. Productivity accounting;
2. Accounting for herd syndromatics;
3. The state of illumination;
4. Type of feeding.

3. Which diseases are primarily caused by the increased content of ammonia vapors on farms?

1. Cardiovascular;

2. Respiratory;
3. Sexual;
4. Gastrointestinal.
4. Which probe is used to obtain the scar content?
 1. Nasopharyngeal;
 2. Oesophageal;
 3. The Khokhlov probe;
 4. Korobov probe.
5. What is the name of the set of environmental elements that affect the body?
 1. Abiotic factors;
 2. Biotic factors;
 3. Anthropogenic factors;
 4. Environmental factors.
6. What are the factors of inanimate nature that affect the body?
 1. abiotic;
 2. Biotic;
 3. Anthropogenic;
 4. Biochemical.
7. What are the factors of wildlife that affect the body?
 1. abiotic;
 2. Biotic;
 3. Anthropogenic;
 4. Biochemical.
8. What is the name of the impact of man and his economic activities on living organisms and nature in general?
 1. abiotic factors;
 2. Biotic factors;
 3. Anthropogenic factors;
 4. Physiological factors.
9. What is the trophic effect of the parasite on the host?
 1. in violation of the integrity of the host's skin;
 2. in sensitization of the host organism;
 3. in the absorption of nutrients from the host body;
 4. in opening the pathways for secondary infection.
10. What are the names of toxic metabolic products of mold fungi belonging to the class of natural toxins capable of causing severe animal diseases?
 1. Mycotoxicoses;
 2. Mycotoxins;
 3. Myxosporidia;
 4. Mycoses.

GPC-2 ID -2 To be able to: use environmental factors and environmental laws in agricultural manufacture; apply the achievements of modern microbiology and ecology of microorganisms in animal husbandry and veterinary medicine in order to prevent infectious and invasive diseases and treat animals; use environmental monitoring methods in the environmental assessment of agricultural facilities and the production of agricultural products; assess the impact on the animal body, anthropogenic and economic factors.

11. What is the signal for the restructuring of the processes taking place in the body, which allows them to respond in the best way to the changes in external conditions?
 1. Humidity;

2. Light;
3. Temperature;
4. Gases.
12. What anthropogenic factor negatively affects the animal body?
 1. Chemical pollution of the environment;
 2. Sunlight;
 3. Air humidity;
 4. Ambient temperature;
13. What is the main pollutant of groundwater leading to animal poisoning?
 1. Potash fertilizers;
 2. Nitrates;
 3. Iron;
 4. Phosphates.
14. What is poorly soluble in HOS?
 1. In fats;
 2. In the water;
 3. In organic solvents;
 4. In lipids.
15. Where, first of all, do HOSs accumulate?
 1. In the liver;
 2. In the kidneys;
 3. In the nervous tissue;
 4. In the heart.
16. Which route of penetration of PHOS preparations into the animal body is not the main one?
 1. Oral;
 2. Percutaneous;
 3. Inhalation;
 4. Placental.
17. Which enzyme is suppressed by PHOS poisoning?
 1. Lipase;
 2. Catalase;
 3. Cholinesterase;
 4. Peroxidase.
18. What is the antidote for PHOS poisoning?
 1. Atropine;
 2. Cordiamine;
 3. Tympanol;
 4. Calcium gluconate.
19. Which drugs are prohibited as medicinal?
 1. Iron-containing;
 2. Mercury;
 3. Iodine-containing;
 4. Hormonal.
20. What substances are formed in steamed beets that cause food poisoning in animals?
 1. Antioxidants;
 2. Urea;
 3. Nitrates;
 4. Preservatives.
21. When eating what can poisoning with nitrates and nitrites occur?
 1. Fertilizers;

2. Corn;
 3. Lands;
 4. Hay.
22. Which blood element is of important diagnostic importance in case of nitrate and nitrite poisoning?
1. Methemoglobin;
 2. Eosinophils;
 3. Neutrophils;
 4. Plasma.
23. What is the name of the system of measures aimed at timely detection of signs of animal disease, disease prevention and treatment of patients?
1. Inspection;
 2. Medical examination;
 3. Palpation;
 4. Percussion.
24. What is the basic principle of veterinary therapy in terms of industrial technology?
1. Passive;
 2. Emotional;
 3. Preventive;
 4. Rehabilitation.
25. How should medical care be provided to animals?
1. In compliance with the rules of asepsis;
 2. In compliance with the rules of antiseptics;
 3. In compliance with the rules of asepsis and antiseptics;
 4. Without following the rules.
26. What is the name of an extensive group of non-communicable animal diseases caused by intoxication with mycotoxins (toxins of micromycetes) that have entered the body in various ways;
1. Mycotoxicoses;
 2. Mycoses;
 3. Clostridiosis;
 4. Mitoses.
27. What mycotoxicoses do not occur depending on the origin?
1. Alimentary;
 2. Respiratory;
 3. Contagious;
 4. Coarse.
28. Where is the absorption of mycotoxins in animals mainly taking place?
1. Respiratory system;
 2. Gastrointestinal tract;
 3. The cardiovascular system;
 4. The lymphatic system.
29. What is the main effect of ergotoxins of ergot?
1. Hepatotoxic;
 2. Nephrotoxic;
 3. Neurotoxic;
 4. Mycotoxic.
30. What pathological condition is not similar to the clinical signs of mycotoxicosis?
1. Myocarditis;
 2. Tetanus;

3. Poisoning by poisonous plants;
4. Poisoning by heavy metals.
31. What is the direction of human activity that led to the development of alimentary anemia in piglets?
 1. Breeding;
 2. Position;
 3. Propaganda;
 4. Agronomy.
32. In which pathological condition is one of the preventive measures a gradual transition to a new diet?
 1. Drug allergy;
 2. Hemolytic anemia;
 3. Nephrosclerosis;
 4. Food allergy.
33. What are the diseases in which the immune system acts against the organs and tissues of its own body?
 1. Allergic diseases;
 2. Immune deficiencies;
 3. Autoimmune diseases;
 4. Hemorrhagic diathesis.
34. What is the disease – bronchopneumonia of young animals?
 1. Polyethological;
 2. Specific;
 3. Parasitic;
 4. Only infectious.
35. What is indicated for use in rumen acidosis?
 1. Sodium thiopental;
 2. Scar content from a healthy animal;
 3. Rennet contents;
 4. Tympanol.
36. What method of therapy can be preventive?
 1. Diet therapy;
 2. Etiotropic therapy;
 3. Pathogenetic therapy;
 4. Biological therapy.
37. What does not relate to damage from internal non-communicable diseases?
 1. Loss of productivity;
 2. Economic costs;
 3. Decreased reproductive capacity;
 4. Lack of exercise.
38. What types of animals can have viral hepatitis?
 1. Ducklings;
 2. Fur-bearing animals;
 3. Cats;
 4. Dogs.
39. What is the clinical sign characteristic of infectious nephritis?
 1. An increase in body temperature;
 2. Lowering body temperature;
 3. Body temperature is normal;
 4. Dry cough.

40. Which microorganisms are more likely to cause urocystitis;
1. Meningococci;
 2. Streptococci;
 3. Pneumococci;
 4. Enterococci.

The key to the test of competence of the GPC-2 discipline "Internal non-communicable diseases"

Question No.	Right answer	Question No.	Right answer
1	2	21	1
2	3	22	1
3	2	23	2
4	2	24	3
5	4	25	3
6	1	26	1
7	2	27	4
8	3	28	2
9	1	29	3
10	2	30	1
11	2	31	1
12	1	32	4
13	2	33	3
14	2	34	1
15	3	35	2
16	4	36	1
17	3	37	4
18	1	38	3
19	2	39	1
20	3	40	2

PC-3 To set the diagnose based on the analysis of anamnesis, general, special (instrumental) and laboratory research methods

PC-3 ID -1 To possess skills to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases

1. Hypotension of the pancreas, first of all, is characterized by:

- a. Violation of the secretory function of the scar;
- b. Violation of the absorption function of the scar;
- c. Violation of the motor function of the scar;
- d. Violation of the protective function of the scar.

2. What is not a symptom of scar hypotension?

- a. Refusal to feed;
- b. Lack of chewing gum;
- c. Lack of gas belching;
- d. Lack of food belching.

3. A drug used to enhance the motor function of the pancreas of cattle:

- a. Tincture of white hellebore;
- b. Ammonia and anise drops;
- c. Apomorphine hydrochloride;

- d. Tympanol.
4. Acidosis of the scar is characterized by:
- A shift in the pH of the contents to the alkaline side;
 - A shift in the pH of the contents to the acidic side;
 - Neutral acidity;
 - Variable pH.
5. Select the symptoms of scar acidosis (choose one or more correct answers):
- General weakness;
 - Muscle tremor;
 - Temperature rise;
 - Hypersalivation.
6. What functions does the gastrointestinal tract perform (choose one or more correct answers)?
- Secretory (chemical);
 - Motor (mechanical);
 - Suction;
 - All of the above.
7. Choose the type of digestion by localization (choose one or more correct answers):
- Own digestion;
 - Symbiotic digestion;
 - Membrane digestion;
 - Autolytic digestion.
8. Choose the type of digestion according to the source of enzymes:
- Intracellular digestion;
 - Autolytic digestion;
 - Extracellular digestion;
 - Membrane digestion.
9. Choose the correct definition of the disease "esophageal paralysis":
- Reduction of the lumen of the esophagus with impaired function of the food lump;
 - Animal disease accompanied by loss of contractility of the esophageal wall and accompanied by a complete violation of the patency of the food coma;
 - Animal disease accompanied by periodically recurring tetanic contractions of the muscles of the esophagus;
 - Persistent increase in the lumen of the esophagus, in which the lumen of the esophagus is enlarged evenly in all directions or in one, usually limited place.
10. Who has esophageal blockage more often?
- Cats;
 - Cattle;
 - Dogs;
 - Pigs.
11. What is the capacity of abomasum in cattle?
- 1,7-3,3 l;
 - 8,0-20,0 l;
 - 7,0-18,0 l;
 - 20.0-25.0 l.

PC-3 ID-2 To possess skills to use specialized information databases for the diagnosis of animal diseases

12. Inflammation of the mucous membrane of the pharynx, soft palate, lymphatic follicles, nodes and palatine tonsils is:

- a. Rhinitis;
- b. Stomatitis;
- c. Laryngitis;
- d. Pharyngitis.

13. Atony of the scar is:

- a. Complete cessation of the motor function of the scar;
- b. Reduction in the number of contractions of the scar;
- c. Excessive number of contractions of the scar;
- d. The normal state of the motor function of the scar.

14. A disease characterized by a shift in the pH of the contents of the scar to the acidic

side is:

- a. Acidosis;
- b. Alkalosis;
- c. Apoptosis;
- d. Ankylosis.

15. Percussion sound when the scar is blocked:

- a. Boxed;
- b. Tympanic;
- c. Dumb;
- d. Clear.

16. Among the forms of gastritis, there are:

- a. Hyperacid, hypoacid, anacid, fungicidal;
- b. Hyperacid, hypoacid, anacid, normacid;
- c. Hyperacid, hypoacid, antacid, normacid;
- d. Hyperacid, bactericidal, anacid, normacid.

17. Diseases of the peritoneum include (choose one or more correct answers):

- a. Peritonitis;
- b. Ascites;
- c. Hepatitis;
- d. Reticulitis.

PC-3 ID-3 To possess skills to document the results of clinical animal studies, using digital technologies

18. Rumen capacity in cattle:

- a. 50.0 liters;
- b. 100.0-300.0 liters;
- c. 10.0-20.0 liters;
- d. 500.0 liters.

19. Chemostasis is:

- a. Stagnation of the contents throughout the digestive tract;
- b. Stagnation of contents in the lumen of the small intestine;
- c. Stagnation of contents in the lumen of the large intestine;
- d. Stagnation of the contents in the stomach.

20. By origin, stomatitis can be:

- a. Primary and secondary;
- b. Superficial, median and deep;
- c. External and internal;
- d. Primary, secondary and additional.

21. A cow with a weight of 500.0-800.0 kg and a body length of 2.5 meters has a digestive tract about:

- a. 15.0 meters;

- b. 50.0 meters;
- c. 150.0 meters;
- d. 70.0 meters.

22. When making a diagnosis for traumatic reticulitis, the most effective methods (choose one or more correct answers) are:

- a. Radiography;
- b. Metalloindication;
- c. Palpation;
- d. Endoscopy.

23. In which regions is the book blockage more common:

- a. Southern regions;
- b. Northern regions;
- c. Northwestern;
- d. Far Eastern.

24. From which side is it allowed to approach a tethered cow?

- a. From the side of the head;
- b. From the side of the rump;
- c. From below;
- d. From above.

25. The volume of rumen in small cattle is:

- a. 4-10.0 liters;
- b. 50.0-70.0 liters;
- c. 1.0-5.0 liters;
- d. 10.0-15.0 liters.

PC-3 ID-4 To know the methods of interpretation and data analysis of special (instrumental) methods of animal examination

26. For the treatment of blockage of the book, the most effective are:

- a. Puncture of the book;
- b. Giving ruminatory remedies;
- c. Massage of the book;
- d. Probing.

27. Rumination drugs include (choose one or more correct answers):

- a. Tincture of white hellebore;
- b. Bicillin;
- c. Ascorbic acid;
- d. Tincture of peony.

28. An increase in the acidity of rennet juice is accompanied (choose one or more correct answers) by:

- a. Slowing down of motility;
- b. Constipation;
- c. Increased motility;
- d. Diarrhea.

29. Abomasum displacement is treated:

- a. Promptly;
- b. Medicamentally;
- c. Physiotherapeutic;
- d. Not treated.

30. Enterocolitis is:

- a. Inflammation of the small and large intestines;

- b. Inflammation of the small intestine;
- c. Inflammation of the large intestine;
- d. Inflammation of the caecum.

PC-3 ID-5 To know the norms of indicators of the status of animals' biological material of different species and the reasons that cause deviations from the norms

31. What morphological changes are characteristic of cirrhosis of the liver?

- a. Fibrosis, nodular regeneration, vascular bed restructuring, inflammatory-infiltrative reaction;

- b. Fibrosis, inflammatory infiltration;

- c. Fatty degeneration;

- d. Granular dystrophy.

32. What method allows you to verify the diagnosis of cirrhosis of the liver?

- a. Biochemical examination;

- b. Ultrasound;

- c. X-ray diagnostics;

- d. General clinical blood test.

33. In which disease is there an increase in direct and indirect bilirubin?

- a. Hereditary spherocytosis;

- b. Gilbert's syndrome;

- c. Choledocholithiasis;

- d. Active hepatitis.

PC-3 ID-6 To know the etiology and pathogenesis of animal diseases of various species

34. The liver is a gland of what secretion?

- a. Mixed;

- b. External;

- c. Internal;

- d. Endogenous.

35. What function does the liver perform in the fetus?

- a. Detoxification;

- b. Hematopoietic;

- c. Protective;

- d. Immune.

36. In healthy animals, when examining blood samples, what kind of bilirubin can be found?

- a. Direct;

- b. Indirect;

- c. Direct and indirect;

- d. There should be no bilirubin in the blood.

PC-3 ID-7 To know the generally accepted criteria and classifications of animal diseases, approved lists of animals disease

37. With mechanical jaundice, what color will the stool be?

- a. Acidic;

- b. Dark brown;

- c. Red;

- d. The color of the stool will not change.

38. Portal hypertension is characterized by:

- a. Persistent increase in blood pressure in the portal vein;
- b. Enlargement of the spleen;
- c. Staining of the mucous membranes in yellow;
- d. Periodic attacks of pain.

39. What characterizes liver steatosis:

- a. Accumulation of triglycerides in hepatocytes;
- b. Extracellular deposition of amyloid;
- c. Diffuse overgrowth of connective tissue;
- d. The formation of gallstones.

40. With hepatitis, both the liver and the spleen will increase in size. What is the name of this syndrome?

- a. Hepatolienal;
- b. Portal hypertension;
- c. Hepatic coma;
- d. Hepatic colic.

The key to the PC-3 competence test is the discipline "Internal non-communicable diseases"

Question No.	Right answer	Question No.	Right answer
1	c	21	a
2	c	22	d
3	a	23	a
4	b	24	a
5	a,b,d	25	c
6	d	26	b
7	c	27	a,b
8	b	28	b
9	b	29	b
10	b	30	a
11	b	31	b
12	d	32	a,b
13	d	33	a
14	c	34	a
15	b	35	a
16	b	36	a
17	a,b,d	37	a
18	a	38	a,b
19	a,b,c	39	a
20	b	40	a

PC-5 To carry out plan of animal treatment, based on the stated diagnosis and animals individual characteristics, signature of necessary remedies of chemical and biological nature for the treatment, taking into account combination of its pharmacological effect on the animal body

PC-5 ID-1 To be able to use specialized information databases at a choice of animal treatment methods

1. What will determine the clinical picture of cholelithiasis?

- a. From the position of gallstones;
- b. Depending on the size of the gallbladder;

- c. On the resistance of the body;
- d. From the development of secondary microflora.
- 2. Which drug does not belong to choleretics?
 - a. Allohol;
 - b. Hofitol;
 - c. Essentiale;
 - d. Holosas;
- 3. What is the conversion of indirect bilirubin into direct?
 - a. Glucuronic acid;
 - b. Pepsin;
 - c. ALT;
 - d. Thrombopoietin.
- 4. Where does the formation of urobilinogen occur?
 - a. Gallbladder;
 - b. 12-duodenum;
 - c. Kidneys;
 - d. Large intestine.
- 5. What is the characteristic of parenchymal jaundice?
 - a. Destruction of red blood cells;
 - b. Inflammation of the gallbladder;
 - c. Changes in the structure of liver cells;
 - d. Obstruction of the bile duct.
- 6. What is the structural and functional unit of the liver?
 - a. Islets of Largeness;
 - b. Hepatocytes;
 - c. Reticulocytes;
 - d. Lymphoid cells.
- 7. Bile is produced mainly for:
 - a. Protein foods;
 - b. Fatty foods;
 - c. Carbohydrate foods;
 - d. Spicy foods.
- 8. What is the basis of biliary dyskenesis?
 - a. Increased visceral sensitivity of tissues;
 - b. Impaired motility of the gallbladder;
 - c. Impaired motility of the gallbladder and sphincter of Oddi, as well as increased visceral sensitivity;
 - d. Blockage by stones.

PC-5 ID-2 To be able to calculate the amount of remedies for the treatment of animals and the prevention of diseases with the receipts signature for a certain period

- 9. Hepatitis in dogs is most common:
 - a. Non-infectious nature;
 - b. Infectious nature;
 - c. Fungal nature;
 - d. Occurs the same way.
- 10. With liver amyloidosis, there is:
 - a. Hepatomegaly;
 - b. Hepatosplenomegaly;
 - c. Hepatomegaly, pancreatitis;

d. Nothing happens.

11. Cirrhosis of the liver is curable.

a. True;

b. Incorrect.

12. The reason for the formation of stones in the intestine (choose one or more options):

a. Lack of exercise;

b. Drinking water with a high salt content;

c. Feeding juicy feeds;

d. Intestinal hypotension.

13. Choose the correct answers. Clinical signs of intestinal obstruction with complete obstruction:

a. Atony of the gastrointestinal tract;

b. Body temperature is always within normal limits;

c. Animals are very worried, they can take a "stretching" or "observer" pose;

d. Mucous membranes are hyperemic, sclera is jaundiced.

14. What clinical signs relate to strangulation ileus (choose one or more correct answers):

a. Persistent pain;

b. Shortness of breath of the thoracic type;

c. Hyperemic mucous membranes;

d. Vomiting.

15. In which organ of the horse is the breakdown of fiber?

a. Stomach;

b. Duodenum;

c. Caecum;

d. There is no correct answer.

16. What colic, according to the classification of A. V. Sinev, do you know (choose one or more correct answers)?

a. Symptomatic;

b. Periodic;

c. False;

d. Sharp.

PC-5 ID-3 To be able to calculate the amount of remedies for the treatment of animals and for the prevention of diseases with the receipts signature for a certain period, using digital technologies as well

17. Mechanical obstruction may occur due to (choose one or more correct answers):

a. Internal intestinal blockage;

b. Not registered with horses;

c. As a result of circulatory disorders of some part of the intestines;

d. Infringement of the intestines.

18. What are the symptoms of colic in horses (choose one or more correct answers):

a. Forced (unnatural) positions – sitting dog, standing on wrists, chest, pendulum-like swinging, observer position; how peculiar are these positions;

b. Disorder of food and water intake up to complete failure throughout the disease;

c. Forced movements, of which an uncontrollable urge forward is more often observed;

d. All of the above.

19. Causes of enteralgia (choose one or more correct answers):

a. Various kinds of hypothermia of the animal;

b. Intake of large amounts of cold water;

- c. Feed intolerance;
- d. Eating frozen food, grazing on grass covered with frost, etc.

20. How much digestive juice is produced in a horse per day?

- a. More than 50 liters;
- b. Up to 10 liters;
- c. Up to 30 l;
- d. More than 40 liters.

21. Which of the listed forms of pain that occur in the gastrointestinal tract of animals do you know (choose one or more correct answers):

- a. Distension pain;
- b. Peritoneal pain;
- c. Receptor pain;
- d. Classical pain.

22. Which forms of dynamic obstruction are distinguished (choose one or more correct answers):

- a. Strangulation obstruction;
- b. Paralytic obstruction;
- c. Obturation obstruction;
- d. Spastic obstruction.

23. Enteralgia disease which part of the gastrointestinal tract does it belong to?

- a. Colon;
- b. Stomach;
- c. Small intestine;
- d. Rectum.

24. Which of the listed organs belong to the organs of gas exchange (choose one or more correct answers):

- a. Nasopharynx;
- b. Lungs;
- c. Larynx;
- d. Trachea.

PC-5 ID-4 To be able to administer drugs to the animals body in various techniques

25. Diseases of the respiratory system are divided into main groups:

- a. Pleural diseases and lung diseases;
- b. Diseases of the trachea and bronchi, pleural diseases and lung diseases;
- c. Diseases of the upper respiratory tract, tracheal diseases, pleural diseases and lung

diseases;

d. Diseases of the upper respiratory tract, diseases of the trachea and bronchi, pleural diseases and lung diseases.

26. Lung diseases include (choose one or more correct answers):

- a. Thoracic dropsy;
- b. Laryngeal edema;
- c. Pulmonary edema;
- d. Croup pneumonia.

27. According to etiological factors, respiratory diseases are divided into (choose one or more correct answers):

- a. Primary;
- b. Hemorrhagic;
- c. Secondary;
- d. All of the above is true.

28. In a dog, the posterior border of the lungs reaches:
 a. Along the line of the muckle – the 11th rib; along the line of the sciatic tubercle – the 10th rib;
 b. Along the macklock line – the 13th rib; along the sciatic tubercle line – the 10th rib;
 c. Along the macklock line – the 12th rib; along the sciatic tubercle line – the 11th rib;
 d. Along the macklock line – the 11th rib; along the sciatic tubercle line – the 11th rib.

29. Causes of secondary laryngitis:
 a. Hypothermia;
 b. Infectious diseases;
 c. Violation of conditions of detention;
 d. Violation of feeding technology.
 30. Characteristic symptoms of bronchitis:
 a. Cough, dry and painful in the first days, later deaf, moist and less painful;
 b. From the first days of the disease, the cough is deaf, slightly painful;
 c. In the first days, the cough does not manifest itself, there is a general increase in body temperature;

d. Cough in the first days is dry, painful, later wet and painful.
 31. Characteristic signs of chronic bronchitis (choose one or more correct answers):

a. Emaciation;
 b. Pallor of the mucous membranes;
 c. Reduced productivity and efficiency of animals;
 d. All of the above is true.

32. The prevention of tracheitis includes (choose one or more correct answers):
 a. Antibiotic therapy;
 b. Elimination of etiological factors;
 c. Expectorants;
 d. Vitamin therapy.

PC-5 ID-5 To know the methods of pharmacological treatment of sick animals and indications for its administration, in accordance with the guidelines, instructions, manuals, rules of diagnosis, prevention and treatment

33. The dose of promedol for subcutaneous administration in the treatment of laryngitis to horses:

a. 0.01-0.003 g of dry matter per 1 kg of body weight;
 b. 0.02-0.03 g of dry matter per 1 kg of body weight;
 c. 0.1-0.3 g of dry matter per 1 kg of body weight;
 d. 0.3-0.4 g. dry matter per 1 kg of body weight.

34. Forms of croup pneumonia (choose one or more correct answers):
 a. Abortive;
 b. Creeping;
 c. Stretching;
 d. Two-sided;
 e. Areactive;
 f. Hyperreactive;
 g. Slow motion.

35. Which organs are involved in respiratory movements?

a. Intercostal muscles and diaphragm;
 b. Intercostal muscles and lungs;
 c. Lungs and diaphragm;

d. Aperture only.

36. With emphysema, the elasticity of the alveoli decreases, the interalveolar septa atrophy, the number of alveoli decreases, which leads to a decrease in the amount of residual air in the lungs and an increase in the airiness of the lung tissue:

a. True;

b. Incorrect.

37. Symptoms of pleurisy (choose one or more correct answers):

a. Intermittent splashing noise during auscultation;

b. Arena movements;

c. With percussion, a dull sound;

d. Abdominal type breathing.

PC-5 ID-8 To know the ways of drug injections, used both for animals enteral (oral, sublingual and rectal administration) and parenteral (injections, inhalations and skin applications) methods

38. What applies to lung diseases?

a. Pneumonia;

b. Bronchopneumonia;

c. Aerocystitis;

d. Sinusitis;

e. Diffuse bronchitis;

39. Which of the respiratory diseases occurs suddenly?

a. Catarrhal bronchopneumonia;

b. Croup pneumonia;

c. Bronchitis;

d. Pulmonary emphysema.

40. What kind of pneumonia is lobar?

a. Atelectatic;

b. Catarrhal bronchopneumonia;

c. Purulent;

d. Large

The key to the PC-5 competence test is the discipline "Internal non-communicable diseases"

Question No.	Right answer	Question No.	Right answer
1	a	21	a,b
2	c	22	b,d
3	a	23	c
4	b	24	b
5	c	25	d
6	b	26	c,d
7	b	27	a,c
8	c	28	c
9	b	29	b
10	b	30	a
11	b	31	d
12	a,d	32	d
13	a,c	33	d
14	a,b,d	34	a,b,d,e
15	a	35	a

16	a,c	36	b
17	a,c,d	37	c,d
18	d	38	a,b
19	a,b,d	39	d
20	c	40	d

PC-6 The selection of the variety of methods of non-drug therapy, including physiotherapy methods for the treatment of animals, carry out therapeutic, including physiotherapy procedures using special equipment in compliance with safety rules

PC-6 ID-1 To be able to use special, both digital therapeutic equipment and physiotherapy procedures, in accordance with its instructions

1. The norm of urine pH in dogs:

- a. 6.3-7.0;
- b. 5.2-8.0;
- c. 5.0-7.0;
- d. 5.9-7.6.

2. Pyelonephritis is divided into:

- a. Acute and chronic;
- b. Acute, subacute, chronic;
- c. Primary and secondary;
- d. Abortive, acute, chronic.

3. Etiology of pyelonephritis (choose one or more correct answers):

- a. Hypothermia, hypovitaminosis, fatigue;
- b. Violations of sanitation rules during artificial insemination;
- c. Infection with *E. coli*, staphylococcus, streptococcus;
- d. All of the above;

4. Symptoms of acute pyelonephritis:

- a. Loss of appetite, emaciation, fever up to 40°C, frequent urge to urinate, cloudy urine, neutrophilic leukocytosis in the blood;
- b. Appetite is unchanged, temperature is reduced to 36.00 °C, frequent urge to urinate, urine is bloody, decreased ESR;
- c. Anxiety, temperature increased to 41-42°C, urination is not changed, urine is cloudy, protein is elevated in the blood;
- d. The temperature is normal, urination is difficult, urine is clear, reduced ESR.

5. Treatment for pyelonephritis:

- a. Carbohydrate feeds, copious drinking, antibiotics, glucocorticosteroids, antispasmodics;
- b. Limit the intake of salt and water into the body, antibiotics, NSAIDs;
- c. Easily digestible feed, unlimited water, antibiotics, diuretics, perinephrine novocaine blockade;
- d. Easily digestible feed, unlimited water, diuretics, NSAIDs, antibiotics, antispasmodics.

6. Prevention of pyelonephritis:

- a. Compliance with the rules of asepsis and antiseptics during catheterization of the bladder;
- b. Detection and treatment of diseases of the urinary tract and reproductive system;
- c. Compliance with animal welfare and feeding standards, prevention of hypothermia;
- d. All of the above.

7. Nephrosis is:

- a. Inflammation of the renal parenchyma of an immunological nature with a predominant lesion of the glomerular vessels;

- b. Kidney disease of a non-inflammatory nature, accompanied mainly by degenerative changes in the tubules, urinary glomeruli and impaired metabolic processes in the body of water-salt, protein, cholesterol and others;
- c. Inflammation of the renal pelvis, calyx, and kidneys;
- d. Inflammation of the urinary tract.

PC-6 ID-2 To be able to fix animals to ensure safety during medical procedures

8. Etiology of glomerulonephritis:
 - a. Complications of infectious and purulent septic diseases;
 - b. Colds;
 - c. Intoxication, physical inactivity, excessive introduction of table salt into the diet, hypovitaminosis A;
 - d. All of the above.
9. The most appropriate treatment for nephrosis:
 - a. Copious drinking, antibiotics, glucocorticosteroids, vitamins;
 - b. Restriction of water and table salt, a full-fledged diet with sufficient protein content, antibiotics, hormonal drugs, diuretics;
 - c. Copious drinking, easily digestible feed, antibiotics, diuretics, perinephrine novocaine blockade;
 - d. Restriction of table salt, heavy drinking, antispasmodics, antibiotics.
10. Choose the correct statement:
 - a. Nephrosis usually occurs without hematuria, increased arterial blood pressure, hypotrophy of the heart. In the urine with nephrosis, the protein content is up to 2 percent or more, there are no erythrocytes, leukocytes, renal epithelium and cylinders are present;
 - b. With nephrosis, there are a large number of erythrocytes and leukocytes in the urine, cylinders are available, but in smaller quantities than with glomerulonephritis;
 - c. With nephrosis, hematuria is often observed, arterial blood pressure does not rise. In urine, the protein content is more than 5%, white blood cells and red blood cells in large numbers;
 - d. All options are wrong.
11. Prevention of nephritis (choose one or more correct answers):
 - a. Paying attention to the prevention of primary gastrointestinal and respiratory diseases of infectious and non-infectious origin;
 - b. Compliance with the norms of forage harvesting and storage, as well as to check their quality;
 - c. Elimination of conditions that cause hypothermia of animals, regular walks, cleaning of premises;
 - d. All of the above.
12. The urinary zone of the kidney consists of:
 - a. Tubules;
 - b. Renal corpuscles;
 - c. Arteries and veins;
 - d. Collecting tubules.
13. The hematopoietic function of the kidneys consists in:
 - a. Synthesis of erythropoietin;
 - b. Synthesis of aldosterone;
 - c. Excretion of drugs;
 - d. Synthesis of calcitriol.
14. Tripelphosphates belong to which crystals:
 - a. Struvites;

- b. Oxalates;
- c. Urates;
- d. Nitrites.

PC-6 ID-3 To be able to maintain patients documentation on diseases and treatment of animals, using digital technologies

15. The specific gravity of urine in nephrosis:

- a. Decreased;
- b. Increased.

16. In diseases of the urinary system, what kind of antispasmodics are recommended to use?

- a. Myotropic action;
- b. Neurotropic action;
- c. Antitoxic action;
- d. Neurotoxic action.

17. Bovine hematuria has a course:

- a. Acute;
- b. Chronic;
- c. Subacute;
- d. Chronic/acute.

18. Bladder cystospasm is characterized by:

- a. Nocturia;
- b. Urinary incontinence;
- c. Reflex contraction of the bladder sphincter;
- d. Enuresis.

19. In case of bladder paralysis, therapy is used aimed at:

- a. Excitation of the central nervous system;
- b. Suppression of the central nervous system.

20. Psychoemotional urinary retention is typical for:

- a. Cats;
- b. Cattle;
- c. Horses;
- d. Pigs.

PC-6 ID-4 To know the types of non-drug therapy, including physiotherapy, used in veterinary medicine, and the clinical signs for its use

21. Nephrosclerosis must be differentiated from diabetes mellitus. In diabetes mellitus, unlike nephrosclerosis:

- a. Urine with a low relative density;
- b. Urine with a high relative density;
- c. The relative densities of urine in both diseases are the same;
- d. We do not focus on the relative density of urine in differential diagnosis.

22. Anemia is:

a. It is a decrease in the number of red blood cells in the blood – red blood cells and/or a decrease in hemoglobin levels;

b. A group of hereditary and acquired diseases, the main clinical sign of which is increased bleeding;

c. A pathological condition characterized by a decrease in the number of platelets per unit volume of blood;

d. This is a condition characterized by the presence of blood in the urine.

23. Hemorrhagic diathesis is:

a. A group of hereditary and acquired diseases, the main clinical feature of which is increased bleeding;

b. This is a decrease in the number of red blood cells in the blood – erythrocytes and/or a decrease in hemoglobin levels;

c. A pathological condition characterized by a decrease in the number of platelets per unit volume of blood;

d. Diffuse connective tissue disease characterized by systemic immunocomplex damage to connective tissue and its derivatives, with damage to the vessels of the microcirculatory bed.

24. For better iron absorption, the following are necessary:

a. Cyancobalomine, calcium, phosphorus;

b. Cyancobalomine, folic acid, copper, ascorbic acid;

c. Folic acid, dairy products;

d. Calcium, phosphorus.

25. What pathology is inappropriate to treat in agricultural animals:

a. Aplastic anemia;

b. Hemolytic anemia;

c. Hypoplastic anemia;

d. Alimentary anemia.

26. A drug that does not stimulate erythropoiesis:

a. Erythropoietin;

b. Epocrine;

c. Emeicin;

d. Iron preparations.

PC-6 ID-6 To know the safety rules of manipulation with special equipment during non-drug instrumentation for the animals

27. Anemia develops as a result of:

a. A decrease in the level of platelets in the blood;

b. Lack of red blood cells and hemoglobin;

c. Disorders of the blood coagulation system;

d. Hypersensitivity of the body to allergens.

28. Vasopathy is:

a. Violation of platelet hemostasis;

b. Blood clotting disorder;

c. Vascular wall lesion;

d. Damage to internal organs, mucous membranes, skin.

29. Hemophilia is:

a. A hereditary disease associated with impaired blood clotting;

b. Non-hereditary disease associated with impaired blood clotting;

c. Disease associated with impaired synthesis of B lymphocytes;

d. A disease associated with impaired synthesis of T-lymphocytes.

30. Blood cells synthesizing immunoglobulin:

a. Platelets;

b. Erythrocytes;

c. T-lymphocytes;

d. B lymphocytes.

31. The central organs of hematopoiesis and immunogenesis are represented by:

a. Red bone marrow, spleen, thymus;

b. Red bone marrow, lymph nodes;

- c. Red bone marrow, spleen;
 - d. Red bone marrow, thymus.
32. The total amount of blood from body weight in the body of animals is:
- a. 10.0-15.0%;
 - b. 3.0-4.0%;
 - c. 6.0-8.0%;
 - d. 15.0-20.0%.

PC-6 ID-7 To know the methods and techniques of non-drug manipulations for the animal

33. The normal blood color index is:
- a. 3.4-5.2;
 - b. 0.85-1.15;
 - c. 1.15-2.6;
 - d. 4.8-6.0.
34. Oligocytemia is:
- a. Reduced total number of shaped elements in peripheral blood;
 - b. Reduced amount of coloring matter (hemoglobin) in red blood cells;
 - c. Increased water content in the blood, which leads to a decrease in the specific concentration of red blood cells;
 - d. A pathological condition characterized by a decrease in the content of erythrocytes and hemoglobin per unit volume of blood.
35. The causes of hypoplastic and aplastic anemia include:
- a. Alimentary factors (lack of individual amino acids, vitamins, trace elements);
 - b. Small but prolonged blood loss;
 - c. Violation of the integrity of the vascular wall;
 - d. Significant abrupt blood loss.
36. Which animals are predominantly affected by hemophilia?
- a. Cats, dogs, fur-bearing animals;
 - b. Birds, pigs;
 - c. Cattle, small cattle;
 - d. Dogs, pigs, horses.
37. Allergy is:
- a. An immunopathological process expressed by the hypersensitivity of the body's immune system to external factors;
 - b. Reduced reactivity of the body to the action of substances of antigenic and non-antigenic origin;
 - c. Hypersensitivity upon repeated encounter with a specific antigen;
 - d. An immunopathological process that is inherited.
38. The central primary organs of the immune system include:
- a. Thymus, fabricius bursa in birds, bone marrow in mammals;
 - b. Lymph nodes, thymus, spleen;
 - c. Thymus, cerebellum, bone marrow in mammals;
 - d. Lymph nodes.

PC-6 ID-8 To know forms and rules for filling out the journal for the registration of sick animals and the animal's medical history in accordance with the requirements of veterinary legislation, in digital format as well

39. There are immunodeficiency conditions (choose one or more options):
- a. Congenital, acquired;

b. Primary, secondary;
B. Primary, secondary, tertiary;
types A, B.

40. With the disease - agammaglobulinemia - horses have a cell defect:

a. T- and B-lymphocytes;
b. B-lymphocytes;
B. T-lymphocytes;
G. neutrophils.

The key to PC-6 competency testing is the discipline of Internal Noncommunicable Diseases

Question No.	Right answer	Question No.	Right answer
1	c	21	b
2	a	22	a
3	d	23	a
4	a	24	b
5	d	25	a
6	d	26	c
7	b	27	b
8	d	28	c
9	b	29	a
10	d	30	d
11	d	31	a
12	b	32	c
13	a	33	b
14	a	34	a
15	a	35	a
16	a	36	d
17	b	37	c
18	c	38	a
19	a	39	a,b
20	a	40	b

PC-10 Application of follow-up examinations and studies of animals to assess the effectiveness and safety of the prescribed treatment, detalisation of the animal treatment plan (if necessary) based on the results of the evaluation of the treatment effectiveness

PC-10 ID-1 To be able to evaluate the effectiveness of treatment

1. In order to limit fermentation processes and reduce gas formation, with periodic tympany of calves, the following are used inside:

a. Ichthyol;
b. Tincture of wormwood;
c. Sodium bicarbonate;
d. Caffeine sodium benzoate.

2. Which type of young animals is most susceptible to bezoar disease?

a. Lambs;
b. Calves;
c. Foals;
d. Piglets.

3. The symptoms of periodic tympany include (choose one or more options):

- a. Cyanosis of the mucous membranes;
 - b. Perversion of appetite;
 - c. Swelling of the area of the left hungry fossa;
 - d. Soreness in the xiphoid cartilage area.
4. Dyspepsia by clinical manifestation happens (choose one or more options):
- a. Simple
 - b. Toxic;
 - c. Fatty;
 - d. Protein.
5. Characteristic pathoanatomical changes for autoimmune dyspepsia (choose one or more options):
- a. Extensive hemorrhages and foci of necrosis in the abomasum, pancreas and small intestine;
 - b. The presence of trichobezoars in rennet;
 - c. Lymph nodes are not enlarged;
 - d. There are no changes.
6. Select the wrong answer.
- The basis of the general prevention of gastrointestinal diseases of newborns is:
- a. Biologically complete feeding of breeding stock;
 - b. Receiving colostrum by newborns within an hour or a suckling method of rearing young animals;
 - c. Maintaining good sanitary order and microclimate in maternity wards and dispensaries;
 - d. The selection of parental pairs does not affect the prevention of diseases in newborns.
7. The causes of functional dyspepsia include:
- a. Atrophy of the gastric mucosa;
 - b. Violation of visceral sensitivity;
 - c. Acute inflammation of the gastric mucosa;
 - d. Chronic inflammatory changes in the gastric mucosa.
8. Simple dyspepsia is accompanied (choose one or more correct answers) by:
- a. Intoxication;
 - b. Dehydration of the body;
 - c. Persistent lack of appetite;
 - d. Digestive disorders.
9. It is necessary to differentiate dyspepsia from (choose one or more correct answers):
- a. Colibacteriosis;
 - b. Poisoning;
 - c. Streptococcosis;
 - d. Umbilical sepsis.
10. For the treatment and prevention of rickets, it is advisable to use which of the following drugs (as etiotropic therapy)?
- a. Fish oil;
 - b. Glucose;
 - c. Caffeine;
 - d. Retinol.
11. Hypovitaminosis D is a disease occurring:
- a. Acutely;
 - b. Chronically;
 - c. Subacute;
 - d. Acutely, subacute, chronically.

12. What three groups can be conditionally divided into respiratory diseases of calves according to etiology?

- a. Nonspecific, symptomatic, infectious;
- b. Specific, symptomatic, infectious;
- c. Nonspecific, symptomatic, viral;
- d. Specific, symptomatic, pathogenetic.

13. What course of the disease can be with bronchopneumonia of young animals?

- a. Only acute;
- b. Only chronic;
- c. Acute, subacute, chronic;
- d. Acute, chronic.

14. As a bronchodilator for bronchopneumonia of young animals, the following are used:

- a. Euphyllin;
- b. Glucose;
- c. Norsulfazole;
- d. Erythromycin.

15. By localization, endocarditis happens (choose one or more correct answers):

- a. Ventricular;
- b. Wall mounted;
- c. Valve;
- d. Parenchymal.

PC-10 ID-2 To be able to use specialized information databases when choosing ways for treat animal diseases

16. The occurrence of endocarditis in animals is facilitated (choose one or more correct answers):

- a. Active physiologists loads;
- b. Metabolic disorders;
- c. Hypothermia;
- d. All of the above.

17. What should endocarditis be differentiated from:

- a. Collapse;
- b. Myocardiodystrophy;
- c. Myocarditis;
- d. Heart failure.

18. Which of the symptoms is noted in the initial stage of the disease in the acute course of cardiovascular insufficiency?

- a. Fever;
- b. Cyanosis;
- c. Jaundice;
- d. Diarrhea.

19. Does body temperature rise in myocardial infarction?

- a. In the acute period, it increases;
- b. Increases only with chronic course;
- c. Always within the normal range;
- d. Always below the norm.

20. What is dilatatio cordis?

- a. Inflammation of the mucous membrane of the trachea;
- b. Expansion of the heart;
- c. Heart defects;

d. Arrhythmia.

21. Who is the author of the classification of diseases of the cardiovascular system?

a. Botkin;

b. Worms;

c. Domrachev;

d. Yevgrafov.

22. In which areas of the body do edema develop in case of cardiovascular insufficiency?

a. In the eyelid area;

b. In the area of the submandibular space and peritoneum;

c. In the pelvis and groin area;

d. In the withers area.

23. Are edema symptoms of cardiovascular insufficiency?

a. Yes;

b. No;

c. Partially;

d. Only for myocarditis.

234 Which of the listed diseases is not a pericardial disease?

a. Dropsy of the cardiac chemise;

b. Myocardiodegeneration;

c. Hydropericarditis;

d. Pericarditis.

25. Which of the listed diseases corresponds to the classification accepted in veterinary medicine?

a. Coronary heart disease;

b. Angina pectoris;

c. Myocarditis;

d. Myocardial infarction.

26. In what disease is it possible to enlarge the boundaries of the heart?

a. Myocardosis;

b. Traumatic reticulopericarditis;

c. Endocarditis;

d. Myocarditis.

27. Are animals restricted in water for heart diseases?

a. Yes;

b. No.

28. Which bactericidal antibiotics are most often used in diseases of the cardiovascular system?

a. Penicillin groups;

b. Streptomycin groups;

c. Tetracycline groups;

d. Levomycin groups.

PC-10 ID-3 To know the methods of drug treatment of sick animals and indications for its use in accordance with the guidelines, instructions, manuals, rules of diagnosis, prevention and treatment of animals

29. Which animals mainly have interstitial emphysema (choose one or more correct answers):

a. Dogs;

b. Sheep;

c. Cattle;

- d. Pigs.
30. What kind of respiratory disease occurs in stages?
- Bronchitis;
 - Catarrhal bronchopneumonia;
 - Croup pneumonia;
 - Emphysema of the lungs.
31. In which diseases of the respiratory system are large-bubble wheezes listened to (choose one or more correct answers):
- In case of microbronchitis;
 - For rhinitis;
 - With macrobronchitis;
 - With emphysema of the lungs.
32. What is a pneumothorax?
- Inflammation of the pleura;
 - Dropsy of the chest cavity;
 - Accumulation of air in the chest;
 - A foreign body in the lungs.
33. The urinary system consists of the following organs:
- Kidneys, ureter, bladder;
 - Kidneys, small and large renal cups, pelvis, ureters, bladder and urethra;
 - Kidneys, ureters, bladder, urethra;
 - Kidneys, small and large renal cups, pelvis, ureters, bladder, prostate gland, urethra.
34. In cattle, the right kidney is located in the area of:
- From the 12th rib to the 2nd lumbar vertebra, the cranial end touches the liver;
 - From the 13th rib to the 3rd lumbar vertebra, the cranial end touches the liver;
 - From the 12th rib to the 2nd lumbar vertebra, the cranial end touches the spleen;
 - From From the 13th rib to the 3rd lumbar vertebra, the cranial end touches the spleen.
35. Animals with smooth multi-lobed kidneys include (choose one or more correct answers):
- Deer;
 - Horses;
 - Pigs;
 - Cows.
36. It has no cups:
- Goat;
 - The dog;
 - Horse;
 - Rabbit.
37. Combined immunodeficiency develops by a combination of lesions:
- Thymus;
 - Neutrophils and B-lymphocytes;
 - T- and B-immune systems;
 - T- immune and neutrophil systems.
38. Pathoanatomical changes in bezoar disease (choose one or more options):
- Balls of plant fibers and hair are found in the scar, rennet;
 - There is swelling and hyperemia at the site of the blockage;
 - Scar and rennet are empty;
 - There are no characteristic pathoanatomical changes.
39. Periodic tympania is characterized by swelling of the ventricles in calves:
- ... at the age of 1-4 months, usually before feeding;

- b. ... at the age of 5-8 months, usually after feeding;
- c. ... at the age of 2-3 months, usually after feeding;
- d. ...at the age of 3-5 months, before feeding.

40. What sound is noted during percussion in the abdominal area with periodic tympani of calves?

- a. Tympanic;
- b. Deaf;
- c. Dull;
- d. Blunted.

The key to the PC-10 competence test is the discipline "Internal non-communicable diseases"

Question No.	Right answer	Question No.	Right answer
1	a	21	c
2	a	22	c
3	a,b,c	23	a
4	a,b	24	b
5	a	25	c
6	d	26	d
7	b	27	a
8	d	28	a
9	a,c,d	29	c
10	a	30	c
11	b	31	c
12	a	32	c
13	c	33	c
14	a	34	a
15	b,c	35	c
16	b,c	36	b
17	c	37	c
18	b	38	a,b
19	c	39	c
20	b	40	a

PC-15 Management of organizational, technical, zootechnical and veterinary measures for the prevention of non-contagious diseases in accordance with the preventive plan, analysis of the effectiveness of measures for the prevention of animal diseases for its improvement

PC-15 ID-1 To be able to assess the impact of animal welfare and feeding conditions on its health as part of the implementation of action plans for the prevention of animal diseases using digital technologies

1. The role of microflora in the scar:

- a. Fiber is broken down and protein, vitamin b-12 is synthesized;
- b. Reflex weakening of the motility of the scar;
- c. Strengthens chewing gum, changes pH to the acidic side;
- d. Synthesizes protein, carbohydrates, fats, urea.

2. Gastritis is:

- a. Inflammation of the mesh;
- b. Inflammation of the reticular wall;

- c. Inflammation of the intestinal mucosa;
- d. Inflammation of the mucous membrane and stomach wall.
- 3. Types of gastritis:
 - a. Hyperacid acute;
 - b. Asthenic, dynamic;
 - c. Hyperacid chronic;
 - d. Acute, chronic.
- 4. The main etiological factors of gastritis:
 - a. Vomiting, shortness of breath, tachycardia;
 - b. Feeding with moldy, rotten, contaminated and fermenting poisonous feeds;
 - c. Loss of appetite, chewing gum, lack of peristalsis;
 - d. Compressed, dried conglomerates.
- 5. Young animals suffer from dyspepsia at the age of:
 - a. 1 year;
 - b. 2-3 months;
 - c. 45 days;
 - d. 5-7 days.
- 6. The main cause of dyspepsia is:
 - a. Violation of feeding of uterine livestock in the second half of pregnancy;
 - b. Lack of trace elements in the diet of young animals;
 - c. There is no correct answer;
 - d. Lack of vitamins in the diet of young animals.
- 7. In the treatment of dyspepsia, medicinal solutions are given:
 - a. Subcutaneously;
 - b. Intramuscularly;
 - c. Into the rectum;
 - d. Through the oral cavity.
- 8. Group therapy is:
 - a. Aerosol therapy;
 - b. Paraffin therapy;
 - c. Massage;
 - d. Probing.
- 9. To reduce the concentration of poison in the blood, use:
 - a. Astringents;
 - b. Tannins;
 - c. Bloodletting;
 - d. Laxatives.
- 10. With a lack of iodine in the body, a disease occurs with damage to:
 - a. pancreas;
 - b. sex glands;
 - c. pituitary gland;
 - d. thyroid gland.
- 11. Ascorbic acid deficiency causes:
 - a. skin inflammation;
 - b. inflammation of the joints;
 - c. formation of ulcers on the gums;
 - d. Softening of bone tissue.
- 12. In another way, hypovitaminosis C in birds is called:
 - a. ketosis;

- b. rickets;
- c. dyspepsia;
- d. pellagra.

13. Blood does not coagulate with vitamin deficiency:

- a. b;
- b. k;
- c. e;
- d. d.

14. Calf weight at birth (kg):

- a. 20-25;
- b. 20-45;
- c. 25-60;
- d. 60-70.

PC-15 ID-2 To be able to evaluate the effectiveness of preventive measures and ways to implement them, using digital technologies as well

15. The act of chewing in calves and lambs appears at the age of:

- a. 5-6 days;
- b. 1-2 months;
- c. 25 days.
- d. 12-14 days

16. Disease with the presence of wool balls or plants in the abomasum:

- a. bronchopneumonia;
- b. white muscle disease;
- c. rickets;
- d. bezoar disease.

17. A condition with a decrease in hemoglobin and red blood cells in the blood:

- a. toxic liver dystrophy;
- b. white muscle disease;
- c. anemia;
- d. a-hypovitaminosis.

18. Disease associated with a disorder of phosphorus-calcium metabolism:

- a. bronchopneumonia;
- b. white muscle disease;
- c. rickets;
- d. Bezoar disease;

19. What is meningoencephalitis?

- a. Inflammation of the cerebral cortex;
- b. Inflammation of the pelvis;
- c. Liver dystrophy;
- d. Inflammation of the membranes and substances of the brain.

PC-15 ID-4 To be able to perform diagnostic examination of animals within the framework of medical examination for early detection of disease preclinical and clinical signs

20. The transition from stable to pasture is carried out how?

- a. gradually;
- b. in 1 day;
- c. for 2 years;
- d. Sharply.

21. Atony of the pancreas is?

- a. complete cessation of motor function;
 - b. complete cessation of abomasum function;
 - c. cessation of gastric function;
 - d. Extrasystolia.
22. Hypotension of the pancreas is?
- a. cessation of digestion of food in the pancreas;
 - b. termination of the scar, mesh, book;
 - c. partial cessation of motor function;
 - d. Cessation of bowel function.
23. Is traumatic reticulitis?
- a. inflammation of the mesh due to injury to its wall by a foreign object entering the pancreas along with food;
 - b. cessation of scar function;
 - c. hyperfunction of the pancreas;
 - d. Inflammation of the rectum.
24. Gastroenteritis is?
- a. inflammation of the mucous membrane of the ileum;
 - b. inflammation of the mucous membrane and the underlying layers of the lining of the stomach and intestines;
 - c. inflammation of the loops of the small intestine;
 - d. Dystrophic changes in the mesh wall.
25. Stomatitis is?
- a. inflammation of the mucous membrane of the oral cavity;
 - b. inflammation of the esophagus;
 - c. inflammation of the mucous membrane of the large intestine;
 - d. Inflammation of the tonsils.
26. Downstream stomatitis can be:
- a. only acute;
 - b. focal only;
 - c. only chronic;
 - d. acute, chronic, focal, diffuse.
27. Do secondary stomatitis accompany a number of non-infectious invasive and infectious diseases?
- a. yes;
 - b. no;
 - c. actinomycosis only;
 - d. tuberculosis only
28. In which animals, when the esophagus is blocked, there is a swelling of the scar, absence of belching and chewing gum?
- a. cattle;
 - b. horses;
 - c. pigs;
 - d. dogs.

PC-15 ID-5 To know the types of measures for the prevention of non-contagious animal diseases and metabolic disorders in animals and the requirements for its implementation, in accordance with methodological guidelines, instructions, manuals, rules for the diagnosis, prevention and treatment of animals

29. Abomasum displacement is treated:
- a. Operationally;

- b. Medicinally;
- c. Physiotherapeutically;
- d. Not treated.

30. Enterocolitis is:

- a. Inflammation of the small and large intestines;
- b. Inflammation of the small intestine;
- c. Inflammation of the large intestine;
- d. Inflammation of the caecum.

31. What morphological changes are characteristic of cirrhosis of the liver?

- a. Fibrosis, nodular regeneration, vascular bed restructuring, inflammatory-infiltrative

reaction;

- b. Fibrosis, inflammatory infiltration;
- c. Fatty degeneration;
- d. Granular dystrophy.

32. What method allows you to verify the diagnosis of cirrhosis of the liver?

- a. Biochemical examination;
- b. Ultrasound;
- c. X-ray diagnostics;
- d. General clinical blood test.

33. In which disease is there an increase in direct and indirect bilirubin?

- a. Hereditary spherocytosis;
- b. Gilbert's syndrome;
- c. Choledocholithiasis;
- d. Active hepatitis.

34. The liver is a gland of what secretion?

- a. Mixed;
- b. External;
- c. Internal;
- d. Endogenous.

35. What function does the liver perform in the fetus?

- a. Detoxification;
- b. Hematopoietic;
- c. Protective;
- d. Immune.

36. In healthy animals, when examining blood samples, what kind of bilirubin can be found?

- a. Direct;
- b. Indirect;
- c. Direct and indirect;
- d. There should be no bilirubin in the blood.

37. With mechanical jaundice, what color will the stool be?

- a. Acidic;
- b. Dark brown;
- c. Red;
- d. The color of the stool will not change.

38. Portal hypertension is characterized by:

- a. Persistent increase in blood pressure in the portal vein;
- b. Enlargement of the spleen;
- c. Staining of the mucous membranes in yellow;
- d. Periodic attacks of pain.

39. What characterizes liver steatosis:

- a. Accumulation of triglycerides in hepatocytes;
- b. Extracellular deposition of amyloid;
- c. Diffuse overgrowth of connective tissue;
- d. Formation of gallstones.

40. With hepatitis, both the liver and the spleen will increase in size. What is the name of this syndrome?

- a. Hepatolienal;
- b. Portal hypertension;
- c. Hepatic coma;
- d. Hepatic colic.

The key to the PC-15 competence test is the discipline "Internal non-communicable diseases"

Question No.	Right answer	Question No.	Right answer
1	a	21	d
2	d	22	a
3	d	23	a
4	b	24	c
5	d	25	a
6	a	26	a
7	d	27	a
8	a	28	a
9	c	29	b
10	d	30	a
11	a	31	b
12	d	32	a,b
13	b	33	a
14	b	34	a
15	d	35	a
16	d	36	a
17	c	37	a
18	c	38	a,b
19	a,b,c	39	a
20	b	40	a

PC-17 Drawing up a plan for the medical examination of animals, taking into account its husbandry type, veterinary examinations in order to preserve the health of animals and increase its productivity, development of recommendations for preventive and treatment measures, based on the results of animal study, conducted as part of the veterinary examination

PC-17 ID-1 To be able to perform diagnostic examination of animals within the framework of veterinary study with the use of digital equipment, for early detection of preclinical and clinical signs of the disease

1. Choose the basic principles of modern veterinary therapy (choose one or more correct answers):

- a. The principle of humanity;
- b. The anatomical principle;
- c. The economic principle;
- d. The symptomatic principle.

2. Pathogenetic therapy includes (choose one or more correct answers):
 - a. Ultraviolet irradiation;
 - b. Warming compresses;
 - c. Diuretics;
 - d. All of the above.
3. Therapy in which tissues lysed under the influence of acids and alkalis are used for therapeutic purposes:
 - a. Tissue therapy;
 - b. Lysotherapy;
 - c. Cytotoxin therapy;
 - d. Symptomatic therapy.
4. Which element of workwear is optional when working with cattle?
 - a. Cotton robe;
 - b. Rubber gloves;
 - c. Rubber boots;
 - d. Noise-canceling headphones.
5. Which tool is used when fixing horses (choose one or more correct answers):
 - a. Nasal ring;
 - b. Dyachenko nasal spikes;
 - c. Garms nasal forceps;
 - d. The halter.
6. Recommended terms of medical examination:
 - a. When transferring animals to stable maintenance;
 - b. At the end of the stall;
 - c. Twice, when transferring animals to stable maintenance and at the end of stable maintenance;
 - d. At any time convenient for the owner.
7. Select the principles underlying the medical examination methodology (select one or more correct answers):
 - a. Sample population;
 - b. Continuity;
 - c. Humanity;
 - d. Seasonality.
8. Which animals require routine medical examination (choose one or more correct answers):
 - a. Pigs;
 - b. Sheep;
 - c. Horses;
 - d. All of the above.
9. What is not the purpose of medical examination?
 - a. Increasing the productivity of animals;
 - b. Maintaining animal health;
 - c. Increasing the cost of meat and milk;
 - d. Identification of early clinical signs of the disease.
10. Control groups of animals, as a rule, comprise:
 - a. 10-15% of the herd;
 - b. 50% of the herd;
 - c. Any number of animals, at the discretion of the veterinarian;
 - d. 33% of the herd.

PC-17 ID-2 To know the methodology of veterinary examination of animals in accordance with the actual methodological guidelines

11. Which veins are intravenously injected with solutions for large animals?

- a. Into the jugular or lactic veins;
- b. Into the jugular, femoral and subcutaneous veins;
- c. Into the large ear vein;
- d. Into the ear vein.

12. Subcutaneous administration for therapeutic purposes of blood serum taken from healthy animals is:

- a. Hemotherapy;
- b. Lysotherapy;
- c. Serotherapy;
- d. Tissue therapy.

13. Choose the basic principle of modern veterinary medicine in industrial production:

- a. Complex principle;
- b. Preventive principle;
- c. Physiological principle;
- d. The active principle.

14. Which two methods are the main methods of therapy?

- a. Etiotropic and substitution therapy;
- b. Etiotropic and pathogenetic therapy;
- c. Pathogenetic and symptomatic therapy;
- d. Substitution and symptomatic therapy.

15. What is the method of fixation of bulls?

- a. By squeezing the nasal septum with fingers;
- b. By squeezing the nasal septum with Garm's forceps;
- c. Nasal rings and a strong belt with a collar with a chain, a driver's stick is attached to

the nasal ring;

- d. Fixation with a rope by the neck, horns, head and a second loop around the nose.

16. What is included in the principle of complexity (choose one or more correct answers)?

- a. Selection of feed;
- b. Improvement of living conditions;
- c. Selection of medicines;
- d. Timely diagnosis.

17. What applies to pathogenetic therapy (choose one or more correct answers)?

- a. Ultraviolet irradiation;
- b. Electropuncture;
- c. Hemotherapy;
- d. Vitamin preparations.

18. What effect does subcutaneous serum administration have on the body (choose one or more correct answers)?

- a. Non-specific stimulating;
- b. Antiseptic;
- c. Detoxification;
- d. Activates erythropoiesis and hematopoiesis.

19. What is included in non-specific stimulating therapy (choose one or more correct answers)?

- a. Tissue therapy;
- b. Hemotherapy;

- c. Cytotoxin therapy;
 - d. Vitamin therapy;
 - e. Lysotherapy;
 - f. Serotherapy;
 - g. Diet therapy.
20. What is used as substitution therapy (choose one or more correct answers)?
- a. Vitamins;
 - b. Minerals;
 - c. Blood transfusion;
 - d. Antibiotic therapy.
21. Which method is used to knock down horses (choose one or more correct answers)?
- a. Hess's method;
 - b. V. S. Reshetnyak's method;
 - c. Rugg's method;
 - d. The Russian way.
22. What method is used for felling a pig?
- a. According to Andreev;
 - b. In a Good Way;
 - c. According to Myshkin;
 - d. By Charabrin.
23. Percussion is distinguished by technique (choose one or more correct answers):
- a. Staccato;
 - b. Nonlegato;
 - c. Legato;
 - d. Frullato.
24. The types of deep palpation include:
- a. Push-like, tapping, sliding, manual, fist;
 - b. Sliding, pushing, bimanual;
 - c. Penetrating, bimanual, translational, balloting;
 - d. Sliding, penetrating, bimanual, thrust-like.
25. A vial filled with a transparent (serous) liquid, up to the size of a pea, is:
- a. Vesicle;
 - b. Pustule;
 - c. Blister;
 - d. Papula.
26. The method of using drugs bypassing the gastrointestinal tract is:
- a. The interstitial method;
 - b. Parenteral method;
 - c. Enteral method;
 - d. Enteric method.
27. Voluntary methods of giving medicines, depending on the method of giving, are divided into (choose one or more correct answers):
- a. Group;
 - b. Specific;
 - c. Individual;
 - d. Typical.
28. Hemotherapy, depending on the type of injected blood, is divided into:
- a. Autohemotherapy, isohemotherapy, heterohemotherapy;
 - b. Autohemotherapy, isohemotherapy, homohemotherapy;
 - c. Autohemotherapy, parahemotherapy, isohemotherapy;

d. Autohemotherapy, vasochemotherapy, isohemotherapy.

29. The puncture of the book is done:

- a. Between the 7th and 8th rib on the left side two centimeters below the shoulder blade joint;*
b. Between the 9th and 10th rib on the left side at the level of the shoulder blade joint;
c. Between the 9th and 10th ribs on the right side at the level of the shoulder blade joint;
d. Between the 7th and 8th ribs on the right side two centimeters above the shoulder blade joint.

30. For probing horses, the following is used:

- a. Nasopharyngeal probe;*
b. Oropharyngeal probe;
c. Nasolabial probe;
d. Oesophageal probe.

PC-17 ID-3 To know the types of preventive measures of non-contagious animal diseases and metabolic disorders and the requirements for its implementation in accordance with methodological guidelines, instructions, manuals, rules for the diagnosis, prevention and treatment of animals

31. How many stages does the medical examination contain?

- a. 4;*
b. 5;
c. 1;
d. 3.

32. What is the name of the first stage of medical examination?

- a. Therapeutic;*
b. Diagnostic;
c. Clinical;
d. Preventive.

33. What is the name of the second stage of medical examination?

- a. Therapeutic;*
b. Diagnostic;
c. Clinical;
d. Preventive.

34. What is the name of the third stage of medical examination?

- a. Therapeutic;*
b. Diagnostic;
c. Clinical;
d. Preventive.

35. What is carried out at the first stage of medical examination?

- a. Data collection;*
b. Group therapy;
c. Group prophylaxis;
d. Antibiotic therapy.

36. At which stage of the medical examination are laboratory tests carried out?

- a. 1;*
b. 2;
c. 3;
d. 4.

37. To which stage of the medical examination does maintaining the level of metabolism in the body belong?

- a. Anamnesis;
 - b. Therapeutic;
 - c. Preventive;
 - d. Diagnostic.
38. What is the optimal body temperature in a cowshed?
- a. 5.0-10.00 S;
 - b. 10.0-17.00 S;
 - c. 20.0-25.00 S;
 - d. 25.0-30.00s
39. What is the secretion of iron liver?
- a. Mixed;
 - b. Internal;
 - c. External;
 - d. Distal.
40. Is the content of poisonous plants in hay acceptable?
- a. No;
 - b. More than 10% is allowed;
 - c. Up to 1% is allowed;
 - d. Up to 10% is allowed.

The key to the PC-17 competence test is the discipline "Internal non-communicable diseases"

Question No.	Right answer	Question No.	Right answer
1	a,c	21	b,d
2	d	22	a
3	b	23	a,c
4	d	24	d
5	d	25	a
6	c	26	b
7	a,b	27	a,c
8	d	28	a
9	c	29	c
10	a	30	a
11	a	31	d
12	c	32	b
13	b	33	a
14	b	34	d
15	c	35	a
16	a,b,c	36	a
17	a,b,c	37	c
18	a	38	b
19	a,b,c,e,f	39	a
20	a,b	40	c

3.1.3. SITUATIONAL TASKS

The competence being formed: GPC-1 (GPC-1 ID-1, GPC-1 ID-2, GPC-1 ID-3) – Is able to determine the biological status, normal clinical signs of organs and systems of the animal body.

The competence being formed: GPC-2 (GPC-2 ID-1, GPC-2 ID-2) – Is able to interpret and evaluate in professional activity the influence of natural, socio-economic, genetic and economic factors on the physiological status of the animal body.

The competence being formed: PC-3 (PC-3 ID-1, PC-3 ID-2, PC-3 ID-3, PC-3 ID-4, PC-3 ID-5, PC-3 ID-6, PC-3 ID-7) – To set the diagnose based on the analysis of anamnesis, general, special (instrumental) and laboratory research methods

The competence being formed: PC-5 (PC-5 ID-1, PC-5 ID-2, PC-5 ID-3, PC-5 ID-4, PC-5 ID-5, PC-5 ID-8) – To carry out plan of animal treatment, based on the stated diagnosis and animals individual characteristics, signature of necessary remedies of chemical and biological nature for the treatment, taking into account combination of its pharmacological effect on the animal body.

The competence being formed: PC-6 (PC-6 ID-1, PC-6 ID-2, PC-6 ID-3, PC-6 ID-4, PC-6 ID-6, PC-6 ID-7, PC-6 ID-8) – The selection of the variety of methods of non-drug therapy, including physiotherapy methods for the treatment of animals, carry out therapeutic, including physiotherapy procedures using special equipment in compliance with safety rules.

The competence being formed: PC-10 (PC-10 ID-1, PC-10 ID-2, PC-10 ID-3) – Application of follow-up examinations and studies of animals to assess the effectiveness and safety of the prescribed treatment, detalisation of the animal treatment plan (if necessary) based on the results of the evaluation of the treatment effectiveness.

The competence being formed: PC-15 (PC-15 ID-1, PC-15 ID-2, PC-15 ID-4, PC-15 ID-5) – Management of organizational, technical, zootechnical and veterinary measures for the prevention of non-contagious diseases in accordance with the preventive plan, analysis of the effectiveness of measures for the prevention of animal diseases for its improvement.

The competence being formed: PC-17 (PC-17 ID-1, PC-17 ID-2, PC-17 ID-3) – Drawing up a plan for the medical examination of animals, taking into account its husbandry type, veterinary examinations in order to preserve the health of animals and increase its productivity, development of recommendations for preventive and treatment measures, based on the results of animal study, conducted as part of the veterinary examination.

1. In case of acute gastric dilation in a horse, it is necessary to urgently remove gases from the stomach. The veterinary paramedic used a nasoesophageal probe. At the same time, he pulled the animal's head forward as much as possible and pushed the probe with effort.

Analyze the actions of a veterinary specialist. What should be the sequence of the technique of inserting the nasoesophageal probe?

2. In the Druzhba farm, as a result of feeding substandard feed, three cows developed acute scarring. Veterinary specialists resorted to puncturing the scar using a trocar. The scar was pierced in the area of the left hungry fossa. After puncturing the scar, the trocar stiletto was immediately removed, leaving the sleeve. After 4-7 minutes, two cows fell. To make a diagnosis.

3. The horse has a depressed state, loss of appetite and decreased performance. In the study of the animal, cyanosis of the visible mucous membranes, blood filling and tension of the walls of the veins, edema on the extremities, weakness of the heartbeat, deafness of the tones, bifurcation of the first tone, arrhythmia, pulse of weak filling and small wave, shortness of breath; T - 41.00 S; P - 64; D - 30 were established. Make a diagnosis. Differential diagnosis. What needs to be done to clarify the diagnosis?

4. The cow has an inhibition of the general condition, a decrease in appetite and a decrease in milk yield. The animal stands with its elbows to the side, and groans when getting up or lowering to the ground. In a clinical study, an increase in body temperature (T - 41.00 C), pulse rate (P - 96) and respiration (D - 29) were established. The mucous membranes of the animal are cyanotic, the jugular veins are filled with blood, the venous pulse is positive, the heartbeat is weakened and spilled, swelling of the chest, splashing noise is heard during auscultation of the heart area. Make a diagnosis. Differential diagnosis. Make up therapeutic and preventive measures.

5. In the cow, cyanosis of the visible mucous membranes, significant filling of the jugular veins, positive venous pulse, swelling of the breastbone, weakening of the first tone of the heart

and systolic endocardial murmur in the fourth intercostal space on the right were noted. Make a diagnosis. Differential diagnosis.

6. In a workhorse at the age of 12, there were: decreased performance, lethargy, hair dullness, peripheral vascular density, elongation of the first tone and muffling, strengthening of the second tone in the fourth intercostal space on the left; T - 38.60 S; P - 56; D - 18. Make a diagnosis. Differential diagnosis. Prescribe treatment.

7. A three-month-old piglet was kept in a cold barn by a private owner in winter without enough dry bedding. The animal suddenly developed depression, chills, and refusal to feed. In a clinical study, the following was noted: T - 41.20 C; P - 112; D - 34; a sharp painful cough, severe inspiratory shortness of breath, cyanosis of the piglet and ears. Palpation of the larynx causes a sharp convulsive cough. Make a diagnosis. Differential diagnosis. Prescribe treatment.

8. At the end of the stall period, the cow's milk yield decreased, appetite decreased, chewing gum; T - 39.60 S; P - 82; D - 26; DR - 2 in 2 minutes. In a clinical study, they noticed: short and dry cough, mucous discharge from the nose, with auscultation of the chest - large and medium-bubbly wheezes. The number of red blood cells in the blood was 5.9 million / ml, hemoglobin 112 g / l, leukocytes 14.8 thousand / ml; B - 0; E - 1; Yu - 6; P - 12; C - 30; L - 45; M - 6. Make a diagnosis. Differential diagnosis. Prescribe treatment.

9. In February, after recovering from ketosis, a sheep was noted to be weakened and exhausted. For no apparent reason, the animal developed a paroxysmal cough, during which the animal stretches its neck. Breathing is difficult, the sounds of laryngeal stenosis are heard. T - 39.20S; P - 78; D - 38. Make a diagnosis. Uncover the pathogenesis. Prescribe treatment.

10. The calf was kept in a warm and dry room until the age of three months. In November, at a temperature of - 10.00 C, he was transferred to another room located three kilometers from the first one. After 4 days, the animal developed a dry painful cough, difficulty wheezing, inspiratory shortness of breath, neck stretching. Pressure on the larynx area causes a coughing fit. T - 40.60S; P - 106; D - 28. Make a diagnosis. Differential diagnosis. Prescribe treatment.

11. The horse developed a unilateral mucopurulent discharge from the nose, which increases when the head is lowered. There is soreness on the left side above the upper dental arcade, blunted sound during percussion. The submandibular lymph nodes are enlarged. T - 39.40S; P - 44; D - 16. Make a diagnosis. Make a differential diagnosis. Prescribe treatment.

12. The weakened horse had withers phlegmon, which was treated for two weeks. Suddenly, the animal's general condition worsened, T - 42.20 C; P - 62; D - 30. In a clinical study, shortness of breath, cough, abundant brown-green discharge from the nasal openings, and a fetid smell were found. With auscultation of the lungs - wheezing, hard breathing, with percussion - the presence of areas with a dull and tympanic sound. The mucous membranes are cyanotic, the heart tones are amplified, the jugular veins are swollen. Make a diagnosis. Differential diagnosis. Prescribe treatment.

13. The following clinical signs appeared in calves of one month of age after delivery to the fattening complex from supplier farms: T - 39.8-40.0oS; P - 87-96; D - 32-40; depression, decreased appetite, lethargy cough, serous-mucous discharge from the nose, mixed shortness of breath, with auscultation of the lungs - shallow hard breathing, mixed wheezing, with auscultation of the heart - the emphasis of the second tone on the pulmonary artery, with percussion - foci of bluntness in the anterior areas. Make a preliminary diagnosis. What additional studies should be carried out to clarify the diagnosis. Prescribe treatment.

14. The calf suddenly showed signs of increasing suffocation: progressive shortness of breath, breathing is difficult, the head is elongated, the nostrils are dilated, there is fright in the eyes, during exhalation, a foamy reddish discharge is released from the nasal openings, diffuse wet wheezes are heard during auscultation of the lungs. T - 38.0oS; P - 87; D - 46. Make a diagnosis.

15. The cow suddenly developed shortness of breath, a frightened look, and a cough during which a reddish foamy liquid with clots is ejected from the nasal openings and oral cavity. Bilateral discharge from the nose is also noted in the intervals between coughing attacks. With auscultation of the lungs - wet wheezing, with percussion - the presence of small areas of bluntness. The mucous membranes are anemic, the heartbeat is increased, pounding. T - 39.20S; P - 87; D - 34. Make a diagnosis. Differential diagnosis. Prognosis and treatment.

16. In a cow kept on a leash all year round without exercise, in February, depression, refusal of feed, lethargy were suddenly noted; T - 40.70 S; P - 92; D - 36. Breathing is difficult, shallow, wet wheezing is heard during auscultation, with percussion of the lungs - the presence of areas with tympanic and blunted sound to the right and left below the line of the shoulder blade joint. The mucous membranes are cyanotic, the heartbeat is pounding, the heart tones are deaf, the pulse is low, the swelling of the breast is low. Diagnosis. Differential diagnosis. Forecast. Treatment.

17. The cow suddenly developed anxiety, loss of appetite, frequent chewing movements, discharge of foamy saliva from the oral cavity, shortness of breath, cyanosis of the mucous membranes, increasing scarring. T - 38.20 S; P - 108; D - 36; DR - none. Make a diagnosis.

18. In a clinical study of a cow, it was found: T - 39.50 S; P - 62; D - 18; DR - 3 in 2 minutes, depression, decreased appetite, increased salivation, sluggish and careful chewing, hyperemia of the oral mucosa, its swelling and the presence of ulcers, an increase in submandibular lymph nodes. Diagnosis. Differential diagnosis. Treatment.

19. In October, in the morning, a herd of cows went to the mowed stubble, where there were still many rolls of wheat that had not been harvested. The animals grazed until lunch, after which they drank water from a nearby stream. By evening, many cows refused to feed, they began to moan, worry, and stop

chewing gum, shortness of breath, shallow breathing of the thoracic type, cyanosis of the mucous membranes, increased abdominal volume. T - 37.80 S; P - 96; D - 48; DR - 1-2 in 5 minutes, and some were missing. Make a diagnosis.

20. The breeding bull suddenly has a decreased appetite, chewing gum has disappeared, the general condition is depressed, anxiety is manifested. In a clinical study, the following were established: T - 40.60 S; P - 86; D - 26; DR - 2 in 5 minutes. The animal stands with elbow bumps apart, fibrillar muscle contractions are noted, groans when getting up or lowering to the ground. Make a diagnosis. Conduct additional clinical studies to clarify the diagnosis. Prescribe treatment.

21. During the autumn period, a group of heifers were fed large quantities of sugar beets, potatoes and apples. Suddenly, the animals' appetite decreased, the animals became less active, sluggish, muscle contractions of the anconeus and posterior femoral muscles are noticeable, the nasal mirror is dry, fecal masses of a liquid consistency. T - 39.20 S; P - 90; D - 34; DR - 1-2 in 5 minutes, the pH of the contents of the scar is 5.6. Justify the diagnosis. Make a differential diagnosis. Prescribe treatment and preventive measures.

22. Early in the morning, in the presence of heavy dew, a herd of cows entered a clover field and stayed there for three hours. After that, the animals drank water, and two hours later, many began to worry, looking at their stomachs, fanning their tails, moaning, mooing, and stopping chewing. In a clinical study, cyanosis of the visible mucous membranes, shortness of breath, profuse salivation, an increase in abdominal volume, protrusion of the left hungry fossa, and with percussion - a tympanic sound. T - 38.7-38.0 S; P - 96-128; D - 26-42; DR - 1-2 in 5 minutes, and in some scar movements were not recorded. Make a diagnosis.

23. In a cow whose diet was dominated by straw cutting and poorly cleaned grain waste, and there was no exercise, lethargy, moaning, general depression, lack of appetite, decrease or absence of chewing gum, and excretion of dry feces were suddenly noted. T - 39.50 S; P - 92; D

– 26; DR – 2 in 5 minutes, sluggish. Make a diagnosis. What needs to be done to clarify the diagnosis? Differential diagnosis. Prescribe treatment.

24. In fattening steers of 8-9 months of age at the fattening complex, the diet consisted of grass granulated flour, compound feed, silage, pulp, and hay or straw was not given. The animal developed lethargy, gnashing of teeth, decreased and perverted appetite, shortening of chewing gum, diarrhea. T – 37.9-38.90 S; P – 75-95; D – 16-22; DR – 1-2 in 2 min. Make a diagnosis. What needs to be done to clarify the diagnosis? Differential diagnosis. Prescribe treatment and develop preventive measures.

3.1.4. APPROXIMATE SUBJECT OF TERM PAPERS

The competence being formed: GPC-1 (GPC-1 ID-1, GPC-1 ID-2, GPC-1 ID-3) – Is able to determine the biological status, normal clinical signs of organs and systems of the animal body.

The competence being formed: GPC-2 (GPC-2 ID-1, GPC-2 ID-2) – Is able to interpret and evaluate in professional activity the influence of natural, socio-economic, genetic and economic factors on the physiological status of the animal body.

The competence being formed: PC-3 (PC-3 ID-1, PC-3 ID-2, PC-3 ID-3, PC-3 ID-4, PC-3 ID-5, PC-3 ID-6, PC-3 ID-7) – To set the diagnose based on the analysis of anamnesis, general, special (instrumental) and laboratory research methods

The competence being formed: PC-5 (PC-5 ID-1, PC-5 ID-2, PC-5 ID-3, PC-5 ID-4, PC-5 ID-5, PC-5 ID-8) – To carry out plan of animal treatment, based on the stated diagnosis and animals individual characteristics, signature of necessary remedies of chemical and biological nature for the treatment, taking into account combination of its pharmacological effect on the animal body.

The competence being formed: PC-6 (PC-6 ID-1, PC-6 ID-2, PC-6 ID-3, PC-6 ID-4, PC-6 ID-6, PC-6 ID-7, PC-6 ID-8) – The selection of the variety of methods of non-drug therapy, including physiotherapy methods for the treatment of animals, carry out therapeutic, including physiotherapy procedures using special equipment in compliance with safety rules.

The competence being formed: PC-10 (PC-10 ID-1, PC-10 ID-2, PC-10 ID-3) – Application of follow-up examinations and studies of animals to assess the effectiveness and safety of the prescribed treatment, detalisation of the animal treatment plan (if necessary) based on the results of the evaluation of the treatment effectiveness.

The competence being formed: PC-15 (PC-15 ID-1, PC-15 ID-2, PC-15 ID-4, PC-15 ID-5) – Management of organizational, technical, zootechnical and veterinary measures for the prevention of non-contagious diseases in accordance with the preventive plan, analysis of the effectiveness of measures for the prevention of animal diseases for its improvement.

The competence being formed: PC-17 (PC-17 ID-1, PC-17 ID-2, PC-17 ID-3) – Drawing up a plan for the medical examination of animals, taking into account its husbandry type, veterinary examinations in order to preserve the health of animals and increase its productivity, development of recommendations for preventive and treatment measures, based on the results of animal study, conducted as part of the veterinary examination.

1. Medical examination of cows, heifers, breeding bulls, young animals, fattening cattle, sheep, horses, sows and boars;
2. The use of artificial sources of UV rays in pig farming;
3. Aerosol therapy for lung diseases of calves, piglets, lambs and other animals;
4. Diagnosis and prevention of traumatic pericarditis in cattle;
5. Etiology, diagnosis and prevention of myocardiodystrophy in cows, horses;
6. Etiology, diagnosis, treatment and prevention of pulmonary emphysema in horses;
7. Etiology, diagnosis, treatment and prevention of hypotension and atony of the pancreas in cattle;

8. Etiology, diagnosis, treatment and prevention of rumen acidosis in cows (bulls, sheep);
9. Diagnosis, treatment and prevention of feed injuries in cows (bulls);
10. Etiology, diagnosis, treatment and prevention of scar tympanum;
11. Diagnosis, treatment and prevention of gastric ulcer in pigs in conditions of intensive technology;
12. Gastroenterocolitis in weaning piglets and ways of its prevention;
13. The use of UV-irradiated blood from new-bodied cows, heifers for the prevention of bronchopneumonia of calves;
14. Comparative methods of treatment of gastrointestinal diseases of horses with colic syndrome;
15. Etiology, diagnosis and prevention of liver abscesses in fattening bulls;
16. Etiology, treatment and prevention of hyperthermia in animals;
17. Etiology, diagnosis and prevention of stress in animals;
18. Diagnosis, treatment and prevention of salt poisoning in pigs;
19. Diagnosis, prevention and treatment of urea poisoning;
20. Diagnosis, prevention, treatment of poisoning with nitrates and nitrites;
21. Diagnosis, treatment and prevention of cotton meal poisoning;
22. Etiology, treatment and prevention of ketosis in cows, sheep;
23. Etiology, treatment and prevention of alimentary osteodystrophy in heifers;
24. Etiology, treatment and prevention of secondary osteodystrophy in cows;
25. Diagnosis, treatment and prevention of hypoglycemia in piglets;
26. Etiology, diagnosis, treatment and prevention of acidosis and rumen alkalosis in cows (sheep);
27. Diagnosis, prevention and treatment of polymicroelementoses in cattle, sheep, pigs;
28. Etiology, diagnosis and prevention of fluorosis and caries;
29. Etiology, diagnosis, treatment and prevention of hypovitaminosis in animals;
30. Etiology, treatment and prevention of pasture tetany in cows;
31. Etiology, diagnosis, treatment and prevention of hypothyroidism (endemic goiter);
32. Etiology, diagnosis, prevention of hypovitaminosis in birds;
33. Etiology, diagnosis and prevention of uric acid diathesis in birds;
34. Etiology, diagnosis, treatment and prevention of fatty hepatosis in fur-bearing animals;
35. Etiology, diagnosis, prevention and treatment of group B hypovitaminosis in fur-bearing animals.
36. Acute catarrhal bronchopneumonia.
37. Myocarditis;
38. Hypotension of the pancreas;
39. Traumatic reticuloperitonitis;
40. The blockage of the book;
41. Acute enlargement of the stomach, etc.

3.1.5. TOPICS FOR THE PERFORMANCE OF CONTROL WORK

The competence being formed: GPC-1 (GPC-1 ID-1, GPC-1 ID-2, GPC-1 ID-3) – Is able to determine the biological status, normal clinical signs of organs and systems of the animal body.

The competence being formed: GPC-2 (GPC-2 ID-1, GPC-2 ID-2) – Is able to interpret and evaluate in professional activity the influence of natural, socio-economic, genetic and economic factors on the physiological status of the animal body.

The competence being formed: PC-3 (PC-3 ID-1, PC-3 ID-2, PC-3 ID-3, PC-3 ID-4, PC-3 ID-5, PC-3 ID-6, PC-3 ID-7) – To set the diagnose based on the analysis of anamnesis, general, special (instrumental) and laboratory research methods

The competence being formed: PC-5 (PC-5 ID-1, PC-5 ID-2, PC-5 ID-3, PC-5 ID-4, PC-5 ID-5, PC-5 ID-8) – To carry out plan of animal treatment, based on the stated diagnosis and animals individual characteristics, signature of necessary remedies of chemical and biological nature for the treatment, taking into account combination of its pharmacological effect on the animal body.

The competence being formed: PC-6 (PC-6 ID-1, PC-6 ID-2, PC-6 ID-3, PC-6 ID-4, PC-6 ID-6, PC-6 ID-7, PC-6 ID-8) – The selection of the variety of methods of non-drug therapy, including physiotherapy methods for the treatment of animals, carry out therapeutic, including physiotherapy procedures using special equipment in compliance with safety rules.

The competence being formed: PC-10 (PC-10 ID-1, PC-10 ID-2, PC-10 ID-3) – Application of follow-up examinations and studies of animals to assess the effectiveness and safety of the prescribed treatment, detalisation of the animal treatment plan (if necessary) based on the results of the evaluation of the treatment effectiveness.

The competence being formed: PC-15 (PC-15 ID-1, PC-15 ID-2, PC-15 ID-4, PC-15 ID-5) – Management of organizational, technical, zootechnical and veterinary measures for the prevention of non-contagious diseases in accordance with the preventive plan, analysis of the effectiveness of measures for the prevention of animal diseases for its improvement.

The competence being formed: PC-17 (PC-17 ID-1, PC-17 ID-2, PC-17 ID-3) – Drawing up a plan for the medical examination of animals, taking into account its husbandry type, veterinary examinations in order to preserve the health of animals and increase its productivity, development of recommendations for preventive and treatment measures, based on the results of animal study, conducted as part of the veterinary examination.

1. The essence of the preventive principle of modern veterinary medicine and its role. Characteristics of the physiological, complex and active principles of modern veterinary therapy.

2. Planning of preventive and curative measures on dairy farms. The main preventive measures

in dispensaries and calf houses for newborn calves.

3. Features of prevention and group therapy

in specialized farms for fattening cattle and rearing heifers.

4. Definition of the concept of "animal medical examination". The differences between medical examinations and veterinary examinations and current animal examinations. Clinical indicators that must be taken into account during medical examination. Laboratory tests that must be taken into account during the medical examination of cattle, pigs and horses.

5. Examples of etiotropic therapy for internal non-communicable diseases. To define pathogenetic therapy and its main historical stages of use in veterinary medicine.

6. To substantiate the need for widespread use of diet therapy and give examples of its use in diseases of adult animals and young animals.

7. The mechanism of action of visible light and infrared rays on the animal's body. Sources of visible light and infrared rays used in animal husbandry for preventive and curative purposes. Indications contraindications to the use of infrared rays.

8. Biological effect of ultraviolet rays. Artificial sources of UV rays, methods and doses of their use with therapeutic

and preventive purposes. The influence of sunlight and climatic factors on the effectiveness of treatment and prevention of animal diseases. Indications and contraindications for the use of UV rays.

9. Electric current used in electroplating and electrophoresis, its physiological effect. Methods of electroplating and electrophoresis. Indications and contraindications for the use of galvanization. Advantages of electrophoresis.

10. The use of pulsed currents of low frequency and voltage of direct and alternating directions, in electrotherapy. Equipment used for pulse and alternating current electrotherapy and its purpose. The mechanism of action of electrical stimulation, indications and contraindications.

11. Inductotherapy, physiological effect, method of application, indications and contraindications. Darsonvalization, its physiological effect, method of application, indications and contraindications.

12. The mechanism of heat generation in tissues during UHF therapy, the methodology of procedures. The effect of UHF therapy on various systems in the body, indications and contraindications. Microwave (microwave) therapy, methods of application, indications and contraindications.

13. Aeroionotherapy, physiological effect, method of application, indications and contraindications. Basic safety regulations for light and electrotherapy. Ultrasound therapy, biological and therapeutic effects, methods of application, indications and contraindications. Active walks of active cows, their significance.

14. Basic animal fixation techniques and safety precautions.

15. Technique of subcutaneous, intravenous, intramuscular and intraperitoneal injection. Scar puncture technique and injection of medicinal solutions into the skin.

16. Mouth-gastric probes and gastric and scar sensing techniques. Methods of introduction of magnetic probes and rings.

17. Types of macroclysms and the procedure for their implementation. Catheterization and types of catheters used in veterinary medicine. Catheterization technique and bladder lavage.

18. Prevalence and classification of diseases of the cardiovascular system. Etiology of pericarditis, principles of diagnosis and prevention of diseases.

19. Classification of myocardial diseases. Etiology, symptoms, diagnosis, treatment and prevention of myocarditis and myocardosis.

20. Etiopathogenesis of endocarditis, symptoms, diagnosis and principles of treatment.

21. Classification of heart defects, principles of diagnosis. Etiology, pathogenesis and differential diagnosis of simple heart defects. Principles of therapy and prevention of acquired heart defects.

22. Etiopathogenesis of arteriosclerosis, symptoms and differential diagnosis. Principles of treatment and prevention of atherosclerosis.

23. Etiopathogenesis of vascular thrombosis. Symptoms, differential diagnosis, therapy and prevention. Prevention of heart and vascular diseases in animals.

24. Prevalence and classification of diseases of the respiratory system. The leading external and internal etiological factors, attack the main symptoms of diseases.

25. The main symptoms of laryngitis, rhinitis, differential diagnosis and treatment. Classification and diagnosis of bronchitis. Make a comprehensive treatment plan.

26. Diagnosis and provision of emergency medical care for animals with pulmonary edema and hyperemia. Classification of pneumonia.

27. Etiopathogenesis of croup pneumonia. The main symptoms, its differentiation from bronchopneumonia and bronchitis. Treatment and prevention of the disease.

28. Etiological factors of bronchopneumonia in young animals. The difference in the pathogenesis of the pathological picture in bronchopneumonia and croup pneumonia. The plan and methods of treatment for bronchopneumonia.

29. Classification and diagnosis of emphysema, treatment and prevention. Differential diagnosis of pleurisy and pneumonia, treatment of patients with pleurisy.

30. Classification and main symptoms of pneumothorax. Emergency therapy and prevention methods. Make a plan of general preventive measures against respiratory diseases in the livestock complex.

3.2. Standard tasks for intermediate certification

3.2.1. LIST OF QUESTIONS FOR THE TEST

The competence being formed: GPC-1 (GPC-1 ID-1, GPC-1 ID-2, GPC-1 ID-3) – Is able to determine the biological status, normal clinical signs of organs and systems of the animal body.

The competence being formed: GPC-2 (GPC-2 ID-1, GPC-2 ID-2) – Is able to interpret and evaluate in professional activity the influence of natural, socio-economic, genetic and economic factors on the physiological status of the animal body.

The competence being formed: PC-3 (PC-3 ID-1, PC-3 ID-2, PC-3 ID-3, PC-3 ID-4, PC-3 ID-5, PC-3 ID-6, PC-3 ID-7) – To set the diagnose based on the analysis of anamnesis, general, special (instrumental) and laboratory research methods

The competence being formed: PC-5 (PC-5 ID-1, PC-5 ID-2, PC-5 ID-3, PC-5 ID-4, PC-5 ID-5, PC-5 ID-8) – To carry out plan of animal treatment, based on the stated diagnosis and animals individual characteristics, signature of necessary remedies of chemical and biological nature for the treatment, taking into account combination of its pharmacological effect on the animal body.

The competence being formed: PC-6 (PC-6 ID-1, PC-6 ID-2, PC-6 ID-3, PC-6 ID-4, PC-6 ID-6, PC-6 ID-7, PC-6 ID-8) – The selection of the variety of methods of non-drug therapy, including physiotherapy methods for the treatment of animals, carry out therapeutic, including physiotherapy procedures using special equipment in compliance with safety rules.

The competence being formed: PC-10 (PC-10 ID-1, PC-10 ID-2, PC-10 ID-3) – Application of follow-up examinations and studies of animals to assess the effectiveness and safety of the prescribed treatment, detalisation of the animal treatment plan (if necessary) based on the results of the evaluation of the treatment effectiveness.

The competence being formed: PC-15 (PC-15 ID-1, PC-15 ID-2, PC-15 ID-4, PC-15 ID-5) – Management of organizational, technical, zootechnical and veterinary measures for the prevention of non-contagious diseases in accordance with the preventive plan, analysis of the effectiveness of measures for the prevention of animal diseases for its improvement.

The competence being formed: PC-17 (PC-17 ID-1, PC-17 ID-2, PC-17 ID-3) – Drawing up a plan for the medical examination of animals, taking into account its husbandry type, veterinary examinations in order to preserve the health of animals and increase its productivity, development of recommendations for preventive and treatment measures, based on the results of animal study, conducted as part of the veterinary examination.

1. Medical examination is the basis for the prevention of internal non-infectious animal diseases.
2. Principles of veterinary therapy.
3. Means and methods of veterinary therapy.
4. Preventive and therapeutic measures in specialized livestock farms (LPH, KFH, SEC, etc.).
5. Physioprophyllaxis and physiotherapy for diseases of organs and systems.

6. Phototherapy (light therapy).
7. Electrotherapy.
8. Ultrasound therapy.
9. Aeroionotherapy.
10. Mechanotherapy.
11. Hydrotherapy.
12. Hydrotherapy procedures (bathing, washing, dousing, showering, baths).
13. Diseases of the cardiovascular system (anatomical and physiological features, classification and syndromes).
14. Pericarditis.
15. Dropsy of the cardiac sac.
16. Myocarditis.
17. Myocardial infarction.
18. Endocarditis.
19. Heart defects.
20. Heart failure.
21. Atherosclerosis.
22. Vascular thrombosis.
23. Vascular insufficiency.
24. Diseases of the respiratory system (anatomical and physiological features, classification and syndromes).
25. Rhinitis.
26. Laryngitis.
27. Laryngeal edema.
28. Bronchitis.
29. Hyperemia and pulmonary edema.
30. Pneumonia.
31. Emphysema of the lungs.
32. Pleurisy.
33. Hydrothorax.
34. Pneumothorax.
35. Diseases of the digestive system (anatomical and physiological features, classification and syndromes).
36. Stomatitis.
37. Pharyngitis.
38. Inflammation of the esophagus.
39. Blockage of the esophagus.
40. Hypotension and atony of the pancreas.
41. Acidosis and alkalosis of the scar.
42. Parakeratosis of the scar.
43. Overflow of the scar.
44. Tympania of the scar.
45. Traumatic reticulitis.
46. The blockage of the book.
47. Inflammation and displacement of the abomasum.
48. Gastritis.
49. Peptic ulcer disease.
50. Gastroenteritis.
51. Enterocolitis.

52. Diseases of the stomach and intestines with colic phenomena in horses (anatomical and physiological features, classification and syndromes).
53. Mechanical forms of colic.
54. Paralytic forms of colic.
55. Hemostatic forms of colic.
56. Spastic forms of colic.
57. The general scheme of therapy for diseases of the stomach and intestines with colic in horses.
58. Diseases of the liver and biliary tract (anatomical and physiological features, classification and syndromes).
59. Hepatitis.
60. Hepatosis.
61. Cirrhosis of the liver.
62. Liver abscess.
63. Cholecystitis and cholangitis.
64. Cholelithiasis.
65. Diseases of the peritoneum.
66. Peritonitis and ascites.
67. Diseases of the urinary system (anatomical and physiological features, classification and syndromes).
68. Jade.
69. Pyelonephritis.
70. Nephrosis.
71. Nephrosclerosis.
72. Kidney failure.
73. Pyelitis.
74. Urolithiasis.
75. Urocystitis.
76. Paresis, paralysis and bladder spasm.
77. Diseases of the blood system (anatomical and physiological features, classification and syndromes).
78. Anemia.
79. Hemophilia.
80. Thrombocytopenia.
81. Blood-stained disease.
82. Diseases of the immune system (anatomical and physiological features, classification and syndromes).
83. Immune deficiencies.
84. Autoimmune diseases.
85. Allergic diseases.
86. Hyperimmune and proliferative diseases.
87. Diseases of the nervous system (anatomical and physiological features, classification and syndromes).
88. Solar and thermal shocks.
89. Anemia and hyperemia of the brain.
90. Inflammation of the brain and its membranes.
91. Inflammation of the spinal cord and its membranes.
92. Stress.
93. Neuroses.
94. Epilepsy.
95. Eclampsia.

96. Metabolic diseases (anatomical and physiological features, classification and syndromes).
97. Obesity.
98. Ketosis.
99. Alimentary dystrophy.
100. Hypovitaminosis.
101. A-hypovitaminosis.
102. Hypovitaminoses of group B (B1, B2, B5, B6, B12).
103. D-hypovitaminoses.
104. E-hypovitaminoses.
105. C-hypovitaminoses.
106. Trace elements.
107. Cobalt deficiency.
108. Manganese deficiency.
109. Fluorine deficiency and excess.
110. Excess boron ("boric enteritis").
111. Excess molybdenum.
112. Excess nickel.
113. Diseases of the endocrine organs (anatomical and physiological features, classification and syndromes).
114. Diseases of the hypothalamus and pituitary gland.
115. Diseases of the pancreas.
116. Diseases of the thyroid gland.
117. Diseases of the parathyroid glands.

3.2.2. LIST OF EXAM QUESTIONS

The competence being formed: GPC-1 (GPC-1 ID-1, GPC-1 ID-2, GPC-1 ID-3) – Is able to determine the biological status, normal clinical signs of organs and systems of the animal body.

The competence being formed: GPC-2 (GPC-2 ID-1, GPC-2 ID-2) – Is able to interpret and evaluate in professional activity the influence of natural, socio-economic, genetic and economic factors on the physiological status of the animal body.

The competence being formed: PC-3 (PC-3 ID-1, PC-3 ID-2, PC-3 ID-3, PC-3 ID-4, PC-3 ID-5, PC-3 ID-6, PC-3 ID-7) – To set the diagnose based on the analysis of anamnesis, general, special (instrumental) and laboratory research methods

The competence being formed: PC-5 (PC-5 ID-1, PC-5 ID-2, PC-5 ID-3, PC-5 ID-4, PC-5 ID-5, PC-5 ID-8) – To carry out plan of animal treatment, based on the stated diagnosis and animals individual characteristics, signature of necessary remedies of chemical and biological nature for the treatment, taking into account combination of its pharmacological effect on the animal body.

The competence being formed: PC-6 (PC-6 ID-1, PC-6 ID-2, PC-6 ID-3, PC-6 ID-4, PC-6 ID-6, PC-6 ID-7, PC-6 ID-8) – The selection of the variety of methods of non-drug therapy, including physiotherapy methods for the treatment of animals, carry out therapeutic, including physiotherapy procedures using special equipment in compliance with safety rules.

The competence being formed: PC-10 (PC-10 ID-1, PC-10 ID-2, PC-10 ID-3) – Application of follow-up examinations and studies of animals to assess the effectiveness and safety of the prescribed treatment, detalisation of the animal treatment plan (if necessary) based on the results of the evaluation of the treatment effectiveness.

The competence being formed: PC-15 (PC-15 ID-1, PC-15 ID-2, PC-15 ID-4, PC-15 ID-5) – Management of organizational, technical, zootechnical and veterinary measures for the prevention of non-contagious diseases in accordance with the preventive plan, analysis of the effectiveness of measures for the prevention of animal diseases for its improvement.

The competence being formed: PC-17 (PC-17 ID-1, PC-17 ID-2, PC-17 ID-3) – Drawing up a plan for the medical examination of animals, taking into account its husbandry type, veterinary examinations in order to preserve the health of animals and increase its productivity, development of recommendations for preventive and treatment measures, based on the results of animal study, conducted as part of the veterinary examination.

For the 4th year.

1. What is the damage caused by internal non-infectious animal diseases?
2. General prevention of non-communicable animal diseases.
3. Principles of therapy.
4. Etiotropic therapy.
5. Pathogenetic therapy.
6. Substitution therapy.
7. Medical examination of animals.
8. Stomatitis, pharyngitis.
9. Diseases of the esophagus.
10. Gastroenteritis.
11. Peptic ulcer disease.
12. Hypotension and atony of the pancreas.
13. Tympania of the scar.
14. Overflow.
15. Scar paresis.
16. Differential diagnosis of tympania and scar overflow.
17. Rumen acidosis and rumen alkalosis.
18. Traumatic reticulitis.
19. Blockage of the book.
20. Principles of treatment of animals with colic.
21. Acute enlargement of the stomach.
22. Enteralgia of the intestine.
23. Intestinal flatulence (windy colic).
24. Obturation ileus.
25. Chemostasis
26. Coprostasis.
27. Strangulation ileus.
28. Thromboembolic colic.
29. Sand colic.
30. Catarrhal inflammatory colic.
31. Rhinitis, sinusitis, frontitis.
32. Laryngitis.
33. Bronchitis.
34. Bronchopneumonia.
35. Purulent pneumonia.
36. Aspiration pneumonia.
37. Croup pneumonia.
38. Differential diagnosis of catarrhal and croup pneumonia.
39. Emphysema of the lungs.
40. Myocarditis.
41. Myocardial infarction.
42. Pericarditis.
43. Endocarditis.

44. Heart defects. Classification, the essence of their compensation and decompensation.
45. Differential diagnosis of myocarditis and myocardosis.
46. Classification and syndromes of liver diseases.
47. Jaundice and its diagnostic significance.
48. Hepatitis.
49. Hepatosis.
50. Cirrhosis of the liver.
51. Differential diagnosis of liver diseases.
52. Parakeratosis of piglets.
53. Bezoar disease in calves and lambs.
54. Periodic scarring in calves.
55. Dyspepsia. Etiology, pathogenesis, symptoms, treatment and prevention.
56. Hypovitaminosis A.
57. Toxic liver dystrophy in piglets.
58. White muscle disease.
59. Iron deficiency anemia in piglets.
60. Enzootic ataxia of lambs.
61. Rickets.
62. Bronchopneumonia in young animals in livestock complexes.
63. Physical methods of animal treatment.
64. Expectorants.
65. Antispasmodic therapy.
66. Novocaine therapy.
67. Laxatives.
68. Rumination products.
69. Dietary therapy for internal non-communicable diseases.
70. The technique of introducing a gastric tube to a horse.
71. The technique of rinsing the scar in cattle.

For the 5th year.

1. Principles of veterinary therapy.
2. Medical examination and its importance in the creation of highly productive herds.
3. Diseases of the esophagus.
4. Means and methods of veterinary therapy.
5. Methods of administration of medicines.
6. Classification of diseases of the digestive system.
7. Esophageal blockage, diagnosis, methods of its prevention and therapy of sick animals.
8. Dystonia of the pancreas.
9. Tympania of the scar.
10. Acidosis, alkalosis of the scar.
11. Parakeratosis of the scar.
12. Blockage of the book.
13. Traumatic reticulitis.
14. Gastroenteritis.
15. Diseases of the upper respiratory tract.
16. Bronchopneumonia.
17. Croup pneumonia.
18. Bronchopneumonia and the peculiarities of its manifestation in young animals in livestock complexes. The influence of zoohygienic conditions of detention on its occurrence and course.
19. Pleurisy.

20. Alveolar emphysema of the lungs.
21. Endocarditis.
22. Pericarditis.
23. Myocarditis.
24. Myocardial infarction.
25. Shock and collapse.
26. Hyperemia and pulmonary edema.
27. Liver function. Classification of diseases.
28. Liver disease syndromes.
29. Hepatitis.
30. Hepatosis.
31. Cirrhosis of the liver.
32. Jaundice, its clinical manifestation and diagnostic significance.
33. Diseases of the biliary tract.
34. Classification of diseases with a symptom complex of colic.
35. Principles of treatment of animals with colic.
36. Catarrhal-inflammatory colic.
37. Enteralgia of the intestine.
38. Acute enlargement of the stomach.
39. Intestinal tympania (windy colic).
40. Obturation ileus.
41. Strangulation ileus.
42. Thromboembolic colic.
43. Chemostasis (paralytic ileus in horses).
44. Coprostasis (paralytic ileus in horses).
45. Dyspepsia of newborns.
46. Alimentary anemia of young animals.
47. White muscle disease in young agricultural animals.
48. Parakeratosis of piglets.
49. Syndromes of kidney diseases.
50. Jade.
51. Pyelonephritis.
52. Nephrosis.
53. Nephrosclerosis.
54. Urolithiasis.
55. Paresis and paralysis of the bladder. Bladder spasm.
56. Urocystitis.
57. Chronic hematuria of cattle.
58. Ketosis of cattle.
59. During medical examination, acetone bodies were found in the urine of cows. Make a presumptive diagnosis, prescribe treatment.
60. Alimentary osteodystrophy in cows.
61. Myoglobinuria of horses.
62. Grazing tetany in cattle.
63. Fluoride deficiency.
64. Endemic goiter.
65. Hypocobaltosis.
66. Manganese deficiency in animals.
67. Blood diseases. Classification. Syndromatics.
68. Posthemorrhagic anemia.

69. Hemolytic anemia.
70. Hypoplastic and aplastic anemia.
71. Hemorrhagic diathesis.
72. Drug allergy.
73. Food allergy.
74. Poisoning. Classification. Syndromes.
75. General methods of providing medical care for poisoning.
76. Poisoning with table salt.
77. Solanine poisoning.
78. Poisoning with nitrates and nitrites.
79. Urea poisoning.
80. Sugar beet poisoning.
81. Feed mycotoxicoses.
82. Poisoning with salts of heavy metals.
83. Classification of diseases of the nervous system and their syndromatics.
84. Heat stroke. The influence of zoohygienic conditions on its occurrence and course.
85. Inflammation of the brain and its membranes.
86. Inflammation of the spinal cord and its membranes.
87. Sunstroke.
88. Stress. Pathogenesis, diagnosis, prevention.
89. Hypovitaminoses A, C and their role in the occurrence of diseases of young animals.
90. Hypovitaminoses D, E and their role in the occurrence of diseases of young animals.

4. METHODOLOGICAL MATERIALS DEFINING THE PROCEDURES FOR ASSESSING KNOWLEDGE, SKILLS AND ABILITIES AND WORK EXPERIENCE CHARACTERIZING THE STAGES OF COMPETENCE FORMATION

The control of the development of the discipline "Internal non-communicable diseases" is carried out in accordance with the regulation "On the forms, frequency and procedure of current monitoring of academic performance and intermediate certification of students". The current control of the discipline allows you to assess the degree of perception of the educational material and is carried out to evaluate the results of studying the sections / topics of the discipline.

Criteria for evaluating the performance of the control work:

The mark "excellent" control is written in full in compliance with the necessary sequence of actions; passed on time;

The mark "good" control is written correctly, taking into account 1-2 minor errors or 2-3 defects, corrected independently at the request of the teacher;

The mark "satisfactory" is written correctly by at least half, 1-2 errors or one gross mistake were made, it was not delivered on time;

The mark "unsatisfactory" two (or more) gross mistakes were made in the course of work, which the student cannot correct even at the request of the teacher or the test was not passed at all.

Criteria for evaluating students' knowledge during testing:

The grade "excellent" is given if the student answers correctly at least 90% of the test tasks;

The grade "good" is given if the student answers correctly at least 80% of the test tasks;

The grade "satisfactory" is given if the correct answer of the student is at least 70 %;
The grade "unsatisfactory" is given if the student answers correctly to less than 70% of the test tasks.

Criteria for evaluating the colloquium:

Mark "excellent" the answer is given in full; correctly performs error analysis;

The mark is "good" the answer is given correctly, taking into account 1-2 minor errors or 2-3 defects, corrected independently at the request of the teacher;

The mark is "satisfactory" the answer is given correctly by at least half, 1-2 errors or one gross error were made;

Mark "unsatisfactory" two (or more) gross errors were made during the response, which the student cannot correct even at the request of the teacher.

Criteria for evaluating the completion of the course work:

The mark "excellent" course is completed in full in compliance with the necessary sequence of actions; completed on time;

The mark "good" of the course is executed correctly, taking into account 1-2 minor errors or 2-3 defects, corrected independently at the request of the teacher;

The mark "satisfactory" is written correctly by at least half, 1-2 errors or one gross error were made;

The mark "unsatisfactory" two (or more) gross mistakes were made during the writing of the work, which the student cannot correct even at the request of the teacher or the course paper has not been submitted at all.

Criteria for evaluating answers to test questions:

The mark "credited" is given in full; the answer is given correctly, taking into account 1-2 minor errors or 2-3 defects corrected independently at the request of the teacher, the answer is given correctly by at least half, 1-2 errors or one gross error are allowed;

The mark "not counted" two (or more) gross errors were made during the response, which the student cannot correct even at the request of the teacher.

Criteria for evaluating answers to exam questions:

The mark is "excellent" the answer is given in full;

The mark "good" correctly performs error analysis. The answer is given correctly, taking into account 1-2 minor errors or 2-3 defects, corrected independently at the request of the teacher;

The mark is "satisfactory" the answer is given correctly by at least half, 1-2 errors or one gross error were made;

Mark "unsatisfactory" two (or more) gross errors were made during the response, which the student cannot correct even at the request of the teacher.

Criteria for evaluating the performance of situational tasks:

Mark "excellent" the task was completed in full with the necessary sequence of actions; completed on time;

The mark is "good" the task was completed correctly, taking into account 1-2 minor errors or 2-3 defects, corrected independently at the request of the teacher;

The mark is "satisfactory" the task was completed correctly by at least half, 1-2 errors were made or one gross mistake was made, it was not delivered on time;

The mark "unsatisfactory" two (or more) gross mistakes were made in the course of work, which the student cannot correct even at the request of the teacher or the task is not done at all.

5. ACCESSIBILITY AND QUALITY OF EDUCATION FOR DISABLED PEOPLE

If necessary, persons with disabilities and persons with disabilities are given additional, time to prepare an answer for the test.

When conducting the procedure for evaluating the learning outcomes of disabled people and persons with disabilities, their own technical means can be used.

The procedure for evaluating the learning outcomes of disabled people and persons with disabilities in the discipline provides for the provision of information in forms adapted to the limitations of their health and perception of information:

For people with visual impairments:	– in printed form in enlarged font; – in the form of an electronic document.
For people with hearing impairments:	– in printed form; – in the form of an electronic document.
For people with disorders of the musculoskeletal system:	– in printed form, the device; – in the form of an electronic document.

When conducting the procedure for evaluating the learning outcomes of disabled people and persons with disabilities in the discipline, it ensures that the following additional requirements are met, depending on the individual characteristics of the students:

a) instructions on the procedure for conducting the assessment procedure are provided in an accessible form (orally, in writing);

b) an accessible form of assignment of assessment tools (in printed form, in printed form in enlarged font, in the form of an electronic document, assignments are read out by the teacher);

c) an accessible form of providing answers to tasks (written on paper, a set of answers on a computer, orally).

If necessary, for students with disabilities and the disabled, the procedure for evaluating the results of training in the discipline can be carried out in several stages.

The procedure for evaluating the learning outcomes of disabled people and persons with disabilities is allowed using distant learning technologies.