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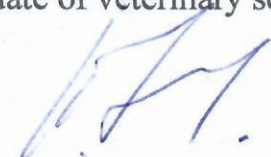
Ministry of Agriculture of the Russian Federation
Federal State Budgetary Educational Institution of higher education
«Saint Petersburg State University of
Veterinary Medicine»

**APPROVED BY**
Vice-Rector
for educational work
and youth policy
A.A. Sukhinin
June 27, 2025

Department of Epizootiology named after V. P. Urban

WORKING PROGRAM
for the discipline
«BIRD DISEASES»
Level of higher education
SPECIALITY
Specialty 36.05.01 Veterinary Medicine
Profile: «General clinical veterinary medicine»
Full-time education
Education starts in 2025

Considered and accepted
at the meeting of the department
June 26, 2025.
Protocol № 12

Head of the Department of Epizootiology
Candidate of veterinary science, docent
**L.C. Fogel**

Saint Petersburg
2025

1. AIMS AND OBJECTIVES OF THE DISCIPLINE

The purpose of the discipline is to familiarize students with industrial poultry farming, the prospects for the development of industries, the state of veterinary services of industrial poultry farming, achieved successes of veterinary science and practice.

The main objective of the discipline is to teach students contagious and noncontagious diseases of birds, mastering modern methods of diagnosis and prevention of diseases, treatment methods, development of measures to eliminate disease outbreaks in industrial farms and the application of specific methods of prevention of contagious diseases of birds.

2. LIST OF PLANNED LEARNING OUTCOMES OF THE DISCIPLINE (MODULE), CORRELATED WITH THE PLANNED LEARNING OUTCOMES OF THE EDUCATIONAL PROGRAM

As a result of mastering the discipline, the student is prepared for the following types of activities, in accordance with the educational standard FGOS VO 36.05.01 «Veterinary Medicine».

Types of professional activity: medical activity: Prevention, diagnosis of diseases of different etiology and treatment of animals.

Competencies of the student, formed as a result of mastering the discipline

The study of the discipline should form the following competences: PC-3, PC-5, PC-13; PC-14

a) Professional competencies:

Type of professional tasks: medical

PC-3 Diagnosis based on the analysis of anamnesis data, general, special (instrumental) and laboratory methods of research

PC-3_{ID-1} To be able to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases

PC-3_{ID-2} To be able to use specialized information databases for diagnosis animal diseases

PC-3_{ID-3} To be able to formalize the results of clinical studies of the animals using digital technologies

PC-3_{ID-4} To know the methods of interpretation and analysis of data from special (instrumental) methods of animal research

PC-3_{ID-5} To know the norms of indicators of the biological material state of animals different species and the reasons causing indicators deviations from the norms

PC-3_{ID-6} To know the etiology and pathogenesis of animal diseases of different species

PC-3_{ID-7} To know generally accepted criteria and classifications of animal diseases, approved lists of animal diseases

PC-5 Development of animal treatment plan based on the established diagnosis and individual characteristics of animals, selection of necessary drugs of chemical and biological nature for animal treatment taking into account their cumulative pharmacological effect on the organism:

PC-5_{ID-1} To be able to use specialized information databases when selecting treatment options for animals;

PC-5_{ID-2} To be able to calculate the amount of medicines for animals treatment and prevention of diseases with the preparation of prescriptions for a certain period of time;

PC-5_{ID-3} To be able to calculate the amount of medicines for animals treatment and prevention of diseases with the preparation of prescriptions for a certain period, including with the help of digital technologies;

PC-5_{ID-4} To be able to administer drugs into the animal body by various methods;

PC-5_{ID-5} To know the methods of medical treatment of sick animals and indications for their use in accordance with methodological guidelines, instructions, manuals, rules of diagnosis, prevention and treatment of animals;

PC-5_{ID-8} To know the administration drugs technique into the animal body by enteral (oral, sublingual and rectal administration) and parenteral (injection, inhalation and skin applications) ways.

PC-13 Organization of measures to protect the organization from the introduction of infectious and invasive diseases in accordance with the plan of anti-epizootic measures:

PC-13_{ID-1} To know the types of measures to ensure veterinary and sanitary safety and the requirements for their implementation in accordance with the legislation of the Russian Federation in the field of veterinary medicine;

PC-14 Organization of prophylactic immunizations (vaccinations), medical and preventive treatments of animals in accordance with the plan of anti-epizootic measures, analysis of the effectiveness of measures to prevent animal diseases in order to improve them:

PC-14_{ID-1} To be able to analyze the effectiveness of preventive measures and their implementation, including the use of digital technologies;

PC-14_{ID-2} To know the procedure for clinical examination of animals when planning preventive measures;

PC-14_{ID-3} To know the types of anti-epizootic measures and requirements for their implementation in accordance with guidelines, instructions, manuals, rules of diagnostics, prevention and treatment of animals.

3. PLACE OF THE DISCIPLINE IN THE STRUCTURE OF MPEP

The discipline B1.V.05 "Bird diseases" is a discipline of the part formed by participants of educational relations of the federal state educational standard of higher education on specialty 36.05.01 "Veterinary Medicine" (specialist level).

The discipline is mastered in the 8th semester of full-time study, in the 11th semester of part-time study, in the 5th year of extramural study.

4. SCOPE OF THE DISCIPLINE "BIRD DISEASES"

4.1. SCOPE OF THE DISCIPLINE "BIRD DISEASES" FOR FULL-TIME STUDY

Type of study work	Total hours	Semester
		8
Auditorium classes (total)	50	50
These include:		
Lectures, including interactive forms	16	16
Practical lessons (PL), including interactive forms	32	32
Practical training (PT)	6	6
Independent work (total)	60	60
Credit	+	+
Total labor intensity hours / credit units	108/3	108/3

5. CONTENT OF THE DISCIPLINE " BIRD DISEASES "
5.1. CONTENT OF THE DISCIPLINE " BIRD DISEASES " FOR FULL-TIME STUDY

№	Title	Formative competences	Semester	Types of academic work, including independent work of students and labor intensity (in hours)			
				Lecture	Practical lessons	Practical Training	Independent work
1.	Introduction to Poultry Production	<p>PC-3 Diagnosis based on the analysis of anamnesis data, general, special (instrumental) and laboratory methods of research</p> <p>PC-3_{ID-1} To be able to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases.</p> <p>PC-3_{ID-2} To be able to use specialized information databases for diagnosing animal diseases</p> <p>PC-3_{ID-3} To be able to formalize the results of clinical studies of animals using digital technologies</p>	8	2	1	1	5

2.	Avian mycoplasmoses	<p>PC-3 Make a diagnosis based on the analysis of anamnesis, general, special (instrumental) and laboratory examination data</p> <p>PC-3_{ID-4} Know the methods of interpretation and analysis of data of special (instrumental) methods of animal research</p> <p>PC-3_{ID-5} To know the norms of indicators of biological material condition of animals of different species and the reasons causing deviations of indicators from norms</p> <p>PC-3_{ID-6} To know etiology and pathogenesis of diseases of animals of different species</p> <p>PC-3_{ID-7} To know generally accepted criteria and classifications of animal diseases, approved lists of animal diseases</p> <p>PC-5 Development of animal treatment plan based on the established diagnosis and individual characteristics of animals, selection of necessary drugs of chemical and biological nature for animal treatment taking into account their cumulative pharmacological effect on the organism:</p> <p>PC-5_{ID-1} To be able to use specialized information databases when selecting treatment options for animals;</p> <p>PC-5_{ID-2} To be able to calculate the amount of medicines for animals treatment and prevention of diseases with the preparation of prescriptions for a certain period of time;</p>	8	-	1	-	6
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3.	Avian Salmonellosis	<p>PC-3 Diagnosis based on the analysis of anamnesis data, general, special (instrumental) and laboratory methods of research</p> <p>PC-3_{ID-4} To know the methods of interpretation and analysis of data from special (instrumental) methods of animal research</p> <p>PC-13 Organization of measures to protect the organization from the introduction of infectious and invasive diseases in accordance with the plan of anti-epizootic measures:</p> <p>PC-13_{ID-1} To know the types of measures to ensure veterinary and sanitary safety and the requirements for their implementation in accordance with the legislation of the Russian Federation in the field of veterinary medicine;</p> <p>PC-14 Organization of prophylactic immunizations (vaccinations), medical and preventive treatments of animals in accordance with the plan of anti-epizootic measures, analysis of the effectiveness of measures to prevent animal diseases in order to improve them:</p> <p>PC-14_{ID-1} To be able to analyze the effectiveness of preventive measures and their implementation, including the use of digital technologies ;</p>	8	2	1	-	5
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4.	Septic diseases of birds (colibacillosis, pasteurellosis)	<p>PC-3 Diagnosis based on the analysis of anamnesis data, general, special (instrumental) and laboratory methods of research</p> <p>PC-3^{ID-1} To be able to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases</p> <p>PC-3^{ID-2} To be able to use specialized information databases for diagnosis animal diseases</p> <p>PC-3^{ID-3} To be able to formalize the results of clinical studies of the animals using digital technologies</p> <p>PC-3^{ID-4} To know the methods of interpretation and analysis of data from special (instrumental) methods of animal research</p> <p>PC-3^{ID-5} To know the norms of indicators of the biological material state of animals different species and the reasons causing indicators deviations from the norms</p> <p>PC-3^{ID-6} To know the etiology and pathogenesis of animal diseases of different species</p> <p>PC-5 Development of animal treatment plan based on the established diagnosis and individual characteristics of animals, selection of necessary drugs of chemical and biological nature for animal treatment taking into account their cumulative pharmacological effect on the organism:</p> <p>PC-5^{ID-3} To be able to calculate the amount of medicines for animals treatment and prevention of diseases with the preparation of prescriptions for a certain period, including with the help of digital technologies;</p> <p>PC-5^{ID-4} To be able to administer drugs into the animal body by various methods;</p>	8	-	2	-	5
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5.	Tuberculosis	<p>PC-3 Diagnosis based on the analysis of anamnesis data, general, special (instrumental) and laboratory methods of research</p> <p>PC-3^{ID-1} To be able to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases</p> <p>PC-3^{ID-2} To be able to use specialized information databases for diagnosis animal diseases</p> <p>PC-5 Development of animal treatment plan based on the established diagnosis and individual characteristics of animals, selection of necessary drugs of chemical and biological nature for animal treatment taking into account their cumulative pharmacological effect on the organism:</p> <p>PC-5^{ID-5} To know the methods of medical treatment of sick animals and indications for their use in accordance with methodological guidelines, instructions, manuals, rules of diagnosis, prevention and treatment of animals;</p> <p>PC-5^{ID-8} To know the administration drugs technique into the animal body by enteral (oral, sublingual and rectal administration) and parenteral (injection, inhalation and skin applications) ways .</p>	8	1	2	-	6
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6.	Avian influenza	<p>PC-3 Diagnosis based on the analysis of anamnesis data, general, special (instrumental) and laboratory methods of research</p> <p>PC-3_{ID-1} To be able to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases</p> <p>PC-3_{ID-2} To be able to use specialized information databases for diagnosis animal diseases</p> <p>PC-13 Organization of measures to protect the organization from the introduction of infectious and invasive diseases in accordance with the plan of anti-epizootic measures:</p> <p>PC-13_{ID-1} To know the types of measures to ensure veterinary and sanitary safety and the requirements for their implementation in accordance with the legislation of the Russian Federation in the field of veterinary medicine;</p> <p>PC-14 Organization of prophylactic immunizations (vaccinations), medical and preventive treatments of animals in accordance with the plan of anti-epizootic measures, analysis of the effectiveness of measures to prevent animal diseases in order to improve them:</p> <p>PC-14_{ID-1} To be able to analyze the effectiveness of preventive measures and their implementation, including the use of digital technologies;</p> <p>PC-14_{ID-2} To know the procedure for clinical examination of animals when planning preventive measures;</p> <p>PC-14_{ID-3} To know the types of anti-epizootic measures and requirements for their implementation in accordance with guidelines, instructions, manuals, rules of diagnostics, prevention and treatment of animals.</p>	8	1	1	1	5
7.	Smallpox, infectious laryngotracheitis	<p>PC-5 Development of animal treatment plan based on the established diagnosis and individual characteristics of animals, selection of necessary drugs of chemical and biological nature for animal treatment taking into account their cumulative pharmacological effect on the organism:</p> <p>PC-5_{ID-1} To be able to use specialized information databases when selecting treatment options for animals;</p> <p>PC-5_{ID-2} To be able to calculate the amount of medicines for animals treatment and prevention of diseases with the preparation of prescriptions for a certain period of time;</p>	8		1	1	3

8.	Tumor diseases of birds (Marek's disease, avian leukosis)	<p>PC-5 Development of animal treatment plan based on the established diagnosis and individual characteristics of animals, selection of necessary drugs of chemical and biological nature for animal treatment taking into account their cumulative pharmacological effect on the organism:</p> <p>PC-5_{ID-1} To be able to use specialized information databases when selecting treatment options for animals;</p> <p>PC-5_{ID-2} To be able to calculate the amount of medicines for animals treatment and prevention of diseases with the preparation of prescriptions for a certain period of time;</p>	8	1	2	-	3
9.	Newcastle disease	<p>PC-3 Diagnosis based on the analysis of anamnesis data, general, special (instrumental) and laboratory methods of research</p> <p>PC-3_{ID-1} To be able to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases</p> <p>PC-3_{ID-2} To be able to use specialized information databases for diagnosis animal diseases</p>	8	2	1	1	1
10.	Adenovirus infections of poultry (hydropericarditis syndrome, egg drop syndrome (EDS-76))	<p>PC-3 Diagnosis based on the analysis of anamnesis data, general, special (instrumental) and laboratory methods of research</p> <p>PC-3_{ID-1} To be able to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases</p> <p>PC-3_{ID-2} To be able to use specialized information databases for diagnosis animal diseases</p>	8	1	2	-	3

11.	Avian infectious bronchitis	<p>PC-3 Diagnosis based on the analysis of anamnesis data, general, special (instrumental) and laboratory methods of research</p> <p>PC-3_{ID-1} To be able to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases</p> <p>PC-3_{ID-2} To be able to use specialized information databases for diagnosis animal diseases</p> <p>PC-5 Development of animal treatment plan based on the established diagnosis and individual characteristics of animals, selection of necessary drugs of chemical and biological nature for animal treatment taking into account their cumulative pharmacological effect on the organism:</p> <p>PC-5_{ID-1} To be able to use specialized information databases when selecting treatment options for animals;</p> <p>PC-5_{ID-2} To be able to calculate the amount of medicines for animals treatment and prevention of diseases with the preparation of prescriptions for a certain period of time;</p>	8	1	2	-	3
12.	Reovirus tenosynovitis, infectious encephalomyelitis	<p>PC-5 Development of animal treatment plan based on the established diagnosis and individual characteristics of animals, selection of necessary drugs of chemical and biological nature for animal treatment taking into account their cumulative pharmacological effect on the organism:</p> <p>PC-5_{ID-1} To be able to use specialized information databases when selecting treatment options for animals;</p> <p>PC-5_{ID-2} To be able to calculate the amount of medicines for animals treatment and prevention of diseases with the preparation of prescriptions for a certain period of time;</p>	8	2	2	-	3
13.	Immunosuppressive birds diseases (Infectious bursal disease, infectious anemia of chickens)	<p>PC-3 Diagnosis based on the analysis of anamnesis data, general, special (instrumental) and laboratory methods of research</p> <p>PC-3_{ID-1} To be able to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases</p> <p>PC-3_{ID-2} To be able to use specialized information databases for diagnosis animal diseases</p>	8	-	1	1	3

14.	Hemorrhagic enteritis of turkeys	<p>PC-3 Diagnosis based on the analysis of anamnesis data, general, special (instrumental) and laboratory methods of research</p> <p>PC-3_{ID-1} To be able to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases</p> <p>PC-3_{ID-2} To be able to use specialized information databases for diagnosis animal diseases</p>	8	1	1	1	4
15.	Viral enteritis of geese	<p>PC-5 Development of animal treatment plan based on the established diagnosis and individual characteristics of animals, selection of necessary drugs of chemical and biological nature for animal treatment taking into account their cumulative pharmacological effect on the organism:</p> <p>PC-5_{ID-1} To be able to use specialized information databases when selecting treatment options for animals;</p>	8	2	2	-	3
16.	Viral hepatitis of ducklings	<p>PC-5 Development of animal treatment plan based on the established diagnosis and individual characteristics of animals, selection of necessary drugs of chemical and biological nature for animal treatment taking into account their cumulative pharmacological effect on the organism:</p> <p>PC-5_{ID-1} To be able to use specialized information databases when selecting treatment options for animals;</p>	8	-	2	-	2
17.	Test		8	-	2	-	-
Total for 8th semester				16	26	6	60

6. LIST OF EDUCATIONAL AND METHODOLOGICAL SUPPORT FOR INDEPENDENT WORK OF STUDENTS IN THE DISCIPLINE

6.1. Methodological instructions for independent work

1. Non-contagious bird diseases: textbook for students of veterinary and zootechnical profiles, veterinary specialists, zoo engineers and scientists / Kuban SAU; Comp: L.N. Sokolova, T.I. Kablucheeva, A.Y. Shantyz. - Krasnodar: Kuban GAU, 2005. - 128 p.: ill. Access mode: <https://ebs.spbguvvm.ru/MarcWeb2/Found.asp> (access date 26.06.2025)

6.2. Literature for independent work

1. Reference book on diseases of poultry / A. B. Baidevlyatov, B. F. Bessarabov, L. A. Olkhovik, et al; Edited by A. B. Baidevlyatov. - 2nd ed., revision and supplement - Kiev : Urozhay, 1992. - 200 c. Access mode: <https://ebs.spbguvvm.ru/MarcWeb2/Found.asp> (access date 26.06.2025)

2. Reference book of veterinary surgeon of poultry enterprise. Vol. 1,2 / Edited by R.N. Korovin. - SPb., 1995. Mode of access: <https://ebs.spbguvvm.ru/MarcWeb2/Found.asp> (access date 26.06.2025)

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

a) basic literature:

1. Diseases of birds: textbook ; rec. UMO higher educational institutions of the Russian Federation / Bessarabov B.F. [et al. [et al.] - 2nd edition, stereotype. - SPb.: Lan, 2009. - 448 p.: ill. - (Textbooks for universities. Special literature). Mode of access: Bessarabov B.F. Diseases of birds 2009g.

3. Donik, Nikolai Stepanovich. Prevention of poultry diseases / Donik Mykola Stepanovich. - Kiev : Urozhay, 1994. - 256 c. URL : Donik N.S. Poultry disease prevention 1994 - Access mode: for authorized users of EB SPbSUVm.

b) additional literature:

1. Practicum on diseases of birds / Bessarabov B.F. [et al.] - Moscow: Kolos, 2005. - 200 p.: ill. - (Textbooks and manuals for university students).

2. Kudryavtsev F.S. Prevention of diseases of birds / Kudryavtsev F.S., Zelensky V.P., Malygin A.I. - L.: Kolos, Leningrad branch, 1981. - 199 p., ill. (B-chka prakt. vet. doctor).

3. System of epizootologic surveillance and control in bird mixtinvasiasis / Edited by V. V. Sochnev. V. Sochnev. - N. Novgorod, 1998. - 160 c.

4. Atlas of ultrastructural pathology of viral diseases of birds / V.A. Bakulin [et al]; VNIVIP; Edited by V.A. Bakulin. - SPb.: NIIH SPbSU, 1999. - 48p.: il. Access mode: <https://ebs.spbguvvm.ru/MarcWeb2/Found.asp> (access date 26.06.2025)

5. Diseases of birds / Bakulin Valery Alexandrovich. - St. Petersburg : Publisher V. A. Bakulin, 2006. - 688 c. : ill. - ISBN 598456-021-6.

6. Bessarabov B.F. Non-contagious diseases of birds: rec. Bessarabov B.F. - M.: KolosS, 2007. - 175 p.: il. - (Textbooks and manuals for students of higher educational institutions).

7. Bessarabov B.F. Prescription reference book on diseases of birds / B.F. Bessarabov, A.B. Baidevlyatov. - Sumy: MKIPP "Mriya", 1992. - 302c.

8. RESOURCES LIST FROM INFORMATION AND TELECOMMUNICATION NETWORK "INTERNET" NECESSARY FOR MASTERING THE DISCIPLINE

To prepare for laboratory classes and perform independent work students can use

Digital library systems:

1. [EBS «SPbGUV»](#)
2. "ConsultantPlus" legal reference system
3. [University information system "RUSSIA"](#)
4. Full-text database POLPRED.COM
5. Scientific electronic library ELIBRARY.RU
6. Russian Science Network
7. IQlib digital library system
8. ProQuest AGRICULTURAL AND ENVIRONMENTAL SCIENCE DATABASE full-text interdisciplinary database on agricultural and environmental sciences
9. E-books by «Prospect Nauki» Publishing House <http://prospektnauki.ru/ebooks/>
10. Collection "Agriculture. Veterinary" from "Kvadro" publishing house <https://elibrica.com/>

9. METHODOLOGICAL INSTRUCTIONS FOR STUDENTS ON MASTERING THE DISCIPLINE

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

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

- Tips for planning and organizing the time needed to study the discipline. A description of the student's sequence of activities, or "learning scenario".

Morning time is the most fruitful time for study work (from 8-14 hours), followed by afternoon (from 16-19 hours) and evening (from 20-24 hours). 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 necessary (10-15 minutes), after 4 hours of work the break should be 1 hour. Part of the scientific organization of work is mastering the technique of mental work. Normally, a student should devote about 10 hours a day to studying (6 hours at university, 4 hours at home).

- Recommendations for working on the lecture material

In preparing for the lecture, the student is advised to:

- 1) review the notes of the previous lecture and recollect the previously studied material;
- 2) review upcoming material for a future lecture(it is also useful);
- 3) if you have been assigned to independently study some fragments of the topic of the previous lecture, you should do it without delay;
- 4) psych yourself up for the lecture.

This work includes two main stages: lecture notes and subsequent work on the lecture material.

Outlining means making an outline, i.e. a brief written summary of the content of something (an oral presentation - speech, lecture, report, etc. or a written source - a document, article, book, etc.).

The method of work in outlining oral speeches differs significantly from the method of work in outlining written sources.

When taking notes from written sources, the student has the opportunity to repeatedly read the necessary passage of text, reflect on it, highlight the main thoughts of the author, briefly formulate them and then write them down. If necessary, he/she can note his/her attitude to this point of view. When listening to a lecture, the student should postpone most of the complex of the above-mentioned works for another time, trying to use every minute to record the lecture, not to comprehend it - there is no time left for that. Therefore, when taking notes on the lecture, it is recommended to separate fields for subsequent notes in addition to the lecture notes on each page.

Having written down the lecture or made its outline, one should not leave the work on the lecture material until the beginning of preparation for the credit. It is necessary to do as early as possible the work that accompanies the outlining of written sources and that could not be done during the recording of the lecture - to read their notes, deciphering certain abbreviations, to analyze the text, to establish logical links between its elements, in some cases to show them graphically, to highlight the main ideas, to note the issues that require additional processing, in particular, consultation with the teacher.

When working on the text of the lecture, the student should pay special attention to the problematic issues posed by the instructor during the lecture, as well as to his assignments and recommendations.

For each lecture, practical training and laboratory work, the number, topic, list of issues covered, volume in hours and references to the recommended literature should be given. For classes conducted in interactive forms, their organizational form should be indicated: computer simulation, business or role-playing game, case study, etc.

- Recommendations for preparation for practical training

Practical (seminar) classes form an important part of students' professional training. The main purpose of practical (seminar) classes is to form students' analytical, creative thinking by acquiring practical skills. Also practical classes are held in order to deepen and consolidate knowledge gained in lectures and in the process of independent work on normative documents, educational and scientific literature. In preparation for a practical lesson for students should study or repeat the theoretical material on a given topic.

When preparing for the practical training, students are recommended to follow the algorithm;

- 1) familiarize themselves with the plan of the upcoming class;
- 2) Work through the literature sources that have been recommended and familiarize yourself with the introductory notes to the relevant sections.

Methodical instructions for practical (seminar) classes in the discipline along with the working program and the schedule of the educational process are among the methodical documents that determine the level of organization and quality of the educational process.

The content of practical (seminar) classes is fixed in the working training programs of disciplines in the sections "List of topics of practical (seminar) classes".

The most important component of any form of practical classes are assignments. The basis of the assignment is an example, which is analyzed from the standpoint of the theory developed in the lecture. As a rule, the main attention is paid to the formation of specific skills, skills, which determines the content of students' activities - problem solving, laboratory work, clarification of categories and concepts of science, which are a prerequisite for proper thinking and speech.

Practical (seminar) classes fulfill the following tasks:

- stimulate regular study of recommended literature as well as attentiveness to the lecture course;
- consolidate the knowledge gained in the course of lecture training and independent work on literature;
- expand the scope of professionally relevant knowledge, skills and abilities;
- allow to check the correctness of previously acquired knowledge;
- instill independent thinking skills, oral presentation skills;
- promote fluency in terminology;
- provide the instructor with an opportunity to systematically monitor the level of students' independent work.

Methodical instructions for practical (seminar) classes in the discipline should be oriented on modern conditions of economic management, current regulatory documents, advanced technologies, on the latest achievements of science, technology and practice, on modern ideas about those or other phenomena of the studied reality.

Laboratory works form an important part of students' professional training. They are aimed at experimental confirmation of theoretical provisions and formation of educational and professional practical skills.

Students' performance of laboratory work is aimed at:

- generalization, systematization, deepening, consolidation of the received theoretical knowledge on specific topics of disciplines;

- formation of necessary professional skills and abilities;

The disciplines for which laboratory works are planned and their volumes are determined by working curricula.

Methodological instructions for laboratory works are developed for the duration of the working training program and include:

- title, indicating the type of work (laboratory), its serial number, volume in hours and name;

- work purpose;

- subject and content of work;

- equipment, facilities, tools;

- work order (sequence);

- Occupational health and safety rules for the given work (if necessary);

- general rules for paperwork;

- control questions;

- tasks;

- reference list (if necessary).

The content of laboratory works is fixed in the working training programs of disciplines in the section "Laboratory works topics list".

When planning laboratory works it should be taken into account that along with the leading goal - confirmation of theoretical provisions - during the performance of tasks students develop practical skills and skills of handling laboratory equipment, apparatus, etc., which can form part of professional practical training, as well as research skills (to observe, compare, analyze, establish dependencies, draw conclusions and generalizations, independently conduct research, draw up the results).

The composition of tasks for laboratory work should be planned in such a way that they can be qualitatively completed by the majority of students in the allotted time.

Laboratory work as a type of training session should be carried out in specially equipped training laboratories. The necessary structural elements of the laboratory work, in addition to the independent activity of students, are the instruction conducted by the teacher, as well as the organization of discussion of the results of the laboratory work performance.

Execution of laboratory works is preceded by a check of students' knowledge - their theoretical readiness to perform the task.

- Recommendations for working with the literature.

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

When starting to study the literature on the topic, it is necessary to make outlines, extracts, notes. It is obligatory to take notes on the works of theorists, which allow you to comprehend the theoretical basis of the study. Otherwise, you can limit yourself to extracts from the studied sources. All extracts, quotations must necessarily have an accurate "return address" (author, title of the work, year of publication, page, etc.). It is desirable to write the abbreviated name of the question to which the extract or quotation refers. In addition, it is necessary to learn to immediately make a card index of special literature and publications of sources, both proposed by the teacher and identified independently, as well as to refer to bibliographic directories,

annals of journal articles, book annals, abstract journals. In this case, publications of sources (articles, book titles, etc.) to write on separate cards, which should be filled out according to the rules of bibliographic description (surname, initials of the author, title of the work. Place of publication, publishing house, 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 idea of the author of the book or a fact from this book only on one specific issue. If the work, even in the same paragraph or phrase, contains more judgments or facts on another issue, they should be written out on a separate card. The statement should be concise, precise, without subjective assessments. On the back of the card you can make your own notes about the book or article, its content, structure, what sources it was written on, etc.

- Explanations about working with 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 behavior 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 being tested or its part. Each question in the discipline must be answered correctly by choosing one option.

- Recommendations for completing coursework (if it is included in the curriculum), defining their thematic focus, goals and objectives of implementation, requirements for content, volume, design and organization of management of their preparation by departments and teachers.

According to the guidelines presented in the list of guidelines.

10. EDUCATIONAL WORK

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

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

11.1. Information technology:

The use of information technology is envisaged in the educational process of the discipline:

- lecturing with the use of a slide presentation;
- interactive technologies (dialog lectures, collective discussion of different approaches to solving a particular educational and professional task)
- interaction with students via e-mail.

11.2. Software:

№ p/p	Name of technical and computer teaching aids recommended by sections and topics of the program	License
1	MS PowerPoint	67580828
2	LibreOffice	free software
3	OS Alt Education 8	AAO.0022.00
4	АБИС "МАРК-SQL"	02102014155
5	MS Windows 10	67580828
6	System ConsultantPlus	503/KL
7	Android OC	free software

12. MATERIAL-TECHNICAL BASE NECESSARY FOR REALIZATION OF EDUCATIONAL PROCESS ON DISCIPLINE

Name of discipline (module), practices in accordance with the curriculum	Name of special* rooms and rooms for independent work	Equipment of special rooms and rooms for independent work
Bird diseases	Aud. 114-26 people	Computer programs and multimedia presentations on veterinary sanitation, general and private epizootology. Projector and folding screen. Educational movies on general and private epizootology courses. Tables, posters, slides, photographs. Digitized computer tables for teaching purposes.
	Aud. 113 -48 people	Computer programs and multimedia presentations on veterinary sanitation, general and private epizootology. Projector and folding screen. Educational movies on general and private epizootology courses. Tables, posters, slides, photographs.
	Aud. 014- 48 people	Tables, posters, photographs. Models, microdrugs, biopreparations (vaccines, diagnostics, sera, etc.).

Developer:

Head of the Department of Epizootiology
named after V. P. Urban
Candidate of veterinary science, docent



L.S. Fogel

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

Department of Epizootiology named after V. P. Urban

FUND OF ASSESMENT TOOLS
for the discipline

«BIRD DISEASES»

Level of higher education

SPECIALITY

Specialty 36.05.01 Veterinary Medicine

Profile: «General clinical veterinary medicine»

Full-time education

Education starts in 2025

Saint Petersburg
2025

1. PASSPORT OF THE FUND OF ASSESMENT TOOLS

№	Acquired competence	Assessed modules of a discipline	Assesment tool
1	PC-3 Diagnosis based on analysis of anamnesis data, general, special (instrumental) and laboratory research methods PC-3ID-1 Be able to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases PC-3ID-2 Be able to use specialized information databases for diagnosing animal diseases PC-3ID-3 Be able to document the results of clinical studies of animals using digital technologies	Section 1. Organization of industrial poultry farming, veterinary services.	Test
		Section 2. Non-communicable diseases of birds	Test
		Section 3. Incubation	Test
2	PC-3ID-4 Know the methods of interpretation and analysis of data from special (instrumental) methods of animal research PC-3ID-5 Know the norms of indicators of the state of biological material of animals of different species and the reasons that cause deviations of indicators from the norms	Section 4. Diseases of embryos	Test
		Section 5. Respiratory diseases of birds	Test
		Section 6. Immunosuppressive diseases of birds	Test
3	PC-3ID-6 Know the etiology and pathogenesis of animal diseases of various species PC-3ID-7 Know generally accepted criteria and classifications of animal diseases, approved lists of animal diseases	Section 7. Diseases of replacement young animals	Test
		Section 8. Features of bird vaccination	Test
4	PC-5 Development of a treatment plan for animals based on the established diagnosis and individual characteristics of the animals, selection of the necessary drugs of a chemical and biological nature for the treatment of animals, taking into account their total pharmacological effect on the body: PC-5ID-1 Be able to use specialized information databases when choosing methods of treating animals; PK-5ID-2 Be able to calculate the amount of medicines for treating animals and preventing diseases with drawing up prescriptions for a certain period; PK-5ID-3 Be able to calculate the amount of medicines for the treatment of		

	<p>animals and the prevention of diseases with the preparation of prescriptions for a certain period, including using digital technologies;</p> <p>PK-5ID-4 Be able to administer drugs into the body of animals in various ways;</p> <p>PC-5ID-5 Know the methods of drug treatment of sick animals and indications for their use in accordance with guidelines, instructions, manuals, rules for diagnosis, prevention and treatment of animals;</p> <p>PC-5ID-8 Know the technique of introducing medicinal substances into the animal's body by enteral (oral, sublingual and rectal administration) and parenteral (injection, inhalation and cutaneous applications) methods.</p> <p>PC-13 Organization of measures to protect the organization from the introduction of infectious and invasive diseases in accordance with the plan of anti-epizootic measures:</p> <p>PC-13ID-1 Know the types of measures to ensure veterinary and sanitary safety and the requirements for their implementation in accordance with the legislation of the Russian Federation in the field of veterinary medicine;</p> <p>PC-14 Organization of preventive immunizations (vaccinations), therapeutic and prophylactic treatments of animals in accordance with the plan of anti-epizootic measures, analysis of the effectiveness of measures for the prevention of animal diseases in order to improve them:</p> <p>PC-14ID-1 Be able to evaluate the effectiveness of preventive measures taken and methods of their implementation, including using digital technologies;</p> <p>PC-14ID-2 Know the procedure for conducting a clinical study of animals when planning preventive measures;</p> <p>PC-14ID-3 Know the types of anti-epizootic measures and the requirements for their implementation in accordance with guidelines, instructions, manuals, rules for diagnosis, prevention and treatment of animals.</p>	
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List of assessment tools

№	Name of the assessment tool	Brief description of the assesment tool	Presentation of the assessment tool in the fund
1.	Test	A system of standardized tasks, which allows to automate the assessment of students knowledge and skills	A fund of test assignments

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

Planned results of competency acquired	The level of development				Assesment tool
	Unsatisfactory	Satisfactory	Good	Excellent	
(PC-3) Making a diagnosis based on analysis of anamnesis data, general, special (instrumental) and laboratory research methods					
PC-3ID-1 Be able to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases	two (or more) gross errors were made during the answer, which the student cannot correct even at the request of the teacher.	the answer was given at least half correctly, 1-2 errors or one gross mistake were made.	the answer was given correctly, taking into account 1-2 minor errors or 2-3 shortcomings, corrected independently at the request of the teacher.	the answer is given in full; performs error analysis correctly.	Tests
PC-3ID-2 Be able to use specialized information databases for diagnosing animal diseases	допущены две (и более) грубые ошибки в ходе ответа, которые обучающийся не может исправить даже по требованию преподавателя.	two (or more) gross errors were made during the answer, which the student cannot correct even at the request of the teacher.	the answer was given correctly, taking into account 1-2 minor errors or 2-3 shortcomings, corrected independently at the request of the teacher.	the answer is given in full; performs error analysis correctly.	Tests
PC-3ID-3 Be able to document the results of clinical studies of animals using digital technologies	two (or more) gross errors were made during the answer, which the student cannot correct even at the request of the teacher.	the answer was given at least half correctly, 1-2 errors or one gross mistake were made.	the answer was given correctly, taking into account 1-2 minor errors or 2-3 shortcomings, corrected independently at the request of the teacher.	the answer is given in full; performs error analysis correctly.	Tests
PC-3ID-4 Know the methods of interpretation and analysis of data from special (instrumental) methods of animal research	two (or more) gross errors were made during the answer, which the student cannot correct even at the request of the teacher.	the answer was given at least half correctly, 1-2 errors or one gross mistake were made.	the answer was given correctly, taking into account 1-2 minor errors or 2-3 shortcomings, corrected independently at the request of the teacher.	the answer is given in full; performs error analysis correctly.	Tests

PC-3ID-5 Know the norms of indicators of the state of biological material of animals of different species and the reasons that cause deviations of indicators from the norms	two (or more) gross errors were made during the answer, which the student cannot correct even at the request of the teacher.	the answer was given at least half correctly, 1-2 errors or one gross mistake were made.	the answer was given correctly, taking into account 1-2 minor errors or 2-3 shortcomings, corrected independently at the request of the teacher.	the answer is given in full; performs error analysis correctly.	Tests
PC-3ID-6 Know the etiology and pathogenesis of animal diseases of various species	two (or more) gross errors were made during the answer, which the student cannot correct even at the request of the teacher.	the answer was given at least half correctly, 1-2 errors or one gross mistake were made.	the answer was given correctly, taking into account 1-2 minor errors or 2-3 shortcomings, corrected independently at the request of the teacher.	the answer is given in full; performs error analysis correctly.	Tests
PC-3ID-7 Know the generally accepted criteria and classifications of animal diseases, approved lists of animal diseases two (or more) gross errors were made during the answer, which the student cannot correct even at the request of the teacher. the answer was given at least half correctly, 1-2 errors or one gross mistake were made. the answer was given correctly, taking into account 1-2 minor errors or 2-3 shortcomings, corrected independently at the request of the teacher. the answer is given in full; performs error analysis correctly. Tests	two (or more) gross errors were made during the answer, which the student cannot correct even at the request of the teacher.	the answer was given at least half correctly, 1-2 errors or one gross mistake were made.	the answer was given correctly, taking into account 1-2 minor errors or 2-3 shortcomings, corrected independently at the request of the teacher.	the answer is given in full; performs error analysis correctly.	Tests
PC-5 Development of a treatment plan for animals based on the established diagnosis and individual characteristics of the animals, selection of the necessary drugs of a chemical and biological nature for the treatment of animals, taking into account their total pharmacological effect on the body					
PC-5ID-1 Be able to use specialized information databases when choosing methods of treating animals;	When deciding standard tasks Not basic skills demonstrated, there were rough errors	The main skills, solved typical tasks with not rude mistakes, all completed tasks, but not in full	All the main ones are demonstrated skills, all solved main tasks with not rude mistakes, all completed assignments in full volume, but some with shortcomings	All the main ones are demonstrated skills, all solved main tasks with separate insignificant shortcomings, all completed assignments in full volume	Tests
PK-5ID-2 Be able to calculate the amount of medicines for treating animals and preventing diseases with drawing up prescriptions for	When deciding standard tasks Not	The main skills, solved typical tasks with	All the main ones are demonstrated skills, all solved	All the main ones are demonstrated skills, all solved	Tests

a certain period;	basic skills demonstrated, there were rough errors	not rude mistakes, all completed tasks, but not in full	main tasks with not rude mistakes, all completed assignments in full volume, but some with shortcomings	main tasks with separate insignificant shortcomings, all completed assignments in full volume	
PC-5ID-4 To be able to administer drugs to the animals body in various techniques.	When deciding standard tasks Not basic skills demonstrated, there were rough errors	The main skills, solved typical tasks with not rude mistakes, all completed tasks, but not in full	All the main ones are demonstrated skills, all solved main tasks with not rude mistakes, all completed assignments in full volume, but some with shortcomings	All the main ones are demonstrated skills, all solved main tasks with separate insignificant shortcomings, all completed assignments in full volume	Tests
PC-5ID-3 Be able to calculate the amount of medicines for the treatment of animals and the prevention of diseases with the preparation of prescriptions for a certain period, including using digital technologies;	When deciding standard tasks Not basic skills demonstrated, there were rough errors	The main skills, solved typical tasks with not rude mistakes, all completed tasks, but not in full	All the main ones are demonstrated skills, all solved main tasks with not rude mistakes, all completed assignments in full volume, but some with shortcomings	All the main ones are demonstrated skills, all solved main tasks with separate insignificant shortcomings, all completed assignments in full volume	Tests
PC-5ID-5 Know the methods of drug treatment of sick animals and indications for their use in accordance with guidelines, instructions, manuals, rules for diagnosis, prevention and treatment of animals;	When deciding standard tasks Not basic skills demonstrated, there were rough errors	The main skills, solved typical tasks with not rude mistakes, all completed tasks, but not in full	All the main ones are demonstrated skills, all solved main tasks with not rude mistakes, all completed assignments in full volume, but some with	All the main ones are demonstrated skills, all solved main tasks with separate insignificant shortcomings, all completed assignments in full	Tests

			shortcomings	volume	
PC-5ID-8 Know the technique of introducing medicinal substances into the animal's body by enteral (oral, sublingual and rectal administration) and parenteral (injection, inhalation and cutaneous applications) methods.	When deciding standard tasks Not basic skills demonstrated, there were rough errors	The main skills, solved typical tasks with not rude mistakes, all completed tasks, but not in full	All the main ones are demonstrated skills, all solved main tasks with not rude mistakes, all completed assignments in full volume, but some with shortcomings	All the main ones are demonstrated skills, all solved main tasks with separate insignificant shortcomings, all completed assignments in full volume	Tests
PC-13 Organization of measures to protect the organization from the introduction of infectious and invasive diseases in accordance with the plan of anti-epizootic measures					
PC-13ID-1 Know the types of measures to ensure veterinary and sanitary safety and the requirements for their implementation in accordance with the legislation of the Russian Federation in the field of veterinary medicine;	Knowledge level below minimum requirements, had the place is rude errors	Minimum acceptable knowledge level, a lot was allowed minor mistakes	Level of knowledge in volume, appropriate program preparation, admitted a few rough ones errors	Level of knowledge in volume, appropriate program preparation, without errors	Tests
PC-14 Organization of preventive immunizations (vaccinations), therapeutic and prophylactic treatments of animals in accordance with the plan of anti-epizootic measures, analysis of the effectiveness of measures for the prevention of animal diseases in order to improve them					
PC-14ID-1 Be able to evaluate the effectiveness of preventive measures taken and methods of their implementation, including using digital technologies	When deciding standard tasks Not demonstrated basic skills there were rough errors	The main skills, solved typical tasks with not rude mistakes, all completed tasks, but not in full	All the main ones are demonstrated skills, all solved main tasks with not rude mistakes, all completed assignments in full volume, but some with shortcomings	All the main ones are demonstrated skills, all solved main tasks with separate insignificant shortcomings, all completed assignments in full volume	Tests

PC-14ID-2 Know the procedure for conducting a clinical study of animals when planning preventive measures	Knowledge level below minimum requirements, had the place is rude errors	Minimum acceptable knowledge level, a lot was allowed minor mistakes	Level of knowledge in volume, appropriate program preparation, admitted a few rough ones errors	Level of knowledge in volume, appropriate program preparation, without errors	Tests
PC-14ID-3 Know the types of anti-epizootic measures and the requirements for their implementation in accordance with guidelines, instructions, manuals, rules for diagnosis, prevention and treatment of animals.	Knowledge level below minimum requirements, had the place is rude errors	Minimum acceptable knowledge level, a lot was allowed minor mistakes	Level of knowledge in volume, appropriate program preparation, admitted a few rough ones errors	Level of knowledge in volume, appropriate program preparation, without errors	Tests

3. LIST OF CHECK TASKS AND OTHER MATERIALS REQUIRED FOR THE ASSESSMENT OF KNOWLEDGE, ABILITIES, SKILLS AND ACTIVITY EXPERIENCE

Assignments for independent work.

Competency being developed: - (PC-3) Making a diagnosis based on analysis of anamnesis data, general, special (instrumental) and laboratory research methods.

PC-3ID-1 Be able to make a diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases.

1. Characterize pathological changes in respiratory diseases of birds.
2. Analyze the main symptoms of immunosuppressive diseases in birds.
3. List respiratory diseases of birds.
4. Understand the characteristics of infectious diseases of birds.

Competency being developed: PC-3ID-2 Be able to use specialized information databases for diagnosing animal diseases

1. Review routine diagnostic studies of birds.
2. Study the sanitation of the poultry building.

Competency being developed: PC-3ID-3 Be able to document the results of clinical studies of animals using digital technologies

1. Study how the effectiveness of bird vaccination is determined.
2. Study the causes of lameness in adult birds in the household.
3. Determine the causes of mineral metabolism disorders in birds.

Competency being developed: PC-3ID-4 Know the methods of interpretation and analysis of data from special (instrumental) methods of animal research

1. Understand for whom avian tuberculosis is dangerous.
2. To study for whom avian paramyxoviruses are dangerous
3. Study the differential diagnosis of influenza and Newcastle disease.

Competency being developed: PC-3ID-5 Know the standards for indicators of the state of biological material of animals of different species and the reasons that cause deviations of indicators from the norms

1. Discuss what antibiotics are used to treat birds during acute outbreaks of viral diseases

2. Study how a person can become infected with aspergillosis from birds
3. Study the diagnostics of a group of birds

Competency being developed: PC-3ID-6 Know the etiology and pathogenesis of animal diseases of various species

1. Study what drugs are used to treat tuberculosis and aspergillosis
2. Find out where the influenza virus is localized in the body of birds

Competency being developed: PC-3ID-7 Know generally accepted criteria and classifications of animal diseases, approved lists of animal diseases

1. Understand the signs of hypovitaminosis A in birds

2. To study what lesions occur in birds with mycoplasmosis

Competency being developed: - (PC-5) Development of a treatment plan for animals based on the established diagnosis and individual characteristics of the animals, selection of the necessary drugs of a chemical and biological nature for the treatment of animals, taking into account their total pharmacological effect on the body

PC-5ID-1 Be able to use specialized information databases when choosing methods of treating animals

1. Understand the basic veterinary and sanitary rules when working with poultry.

2. Study the routes of transmission of infectious diseases of birds.

3. Understand what measures are taken to eliminate infectious diseases.

Competency being developed: - PC-5ID-2 Be able to calculate the amount of medicines for treating animals and preventing diseases with drawing up prescriptions for a certain period.

1. Study measures to combat infectious diseases of birds.

2. Study the list of modern vaccines.

3. Discuss hypervitaminosis and hypovitaminosis in birds.

Competency being developed: PC-5ID-3 Be able to calculate the amount of medicines for treating animals and preventing diseases with the preparation of prescriptions for a certain period, including using digital technologies;

1. Discuss the differential diagnosis of colibacillosis and pasteurellosis

2. Study methods of treating tuberculosis and aspergillosis

3. Analyze the causes of mineral metabolism disorders in birds

Competency being developed: PC-5ID-4 Be able to administer drugs into the body of animals in various ways;

1. Determine whether birds can secrete vaccine viruses from their bodies

2. Study what live vaccines are used in poultry farming

To study which inactivated vaccines are used in poultry farming

Competency being developed: PC-5ID-5 Know methods of drug treatment of sick animals and indications for their use in accordance with guidelines, instructions, manuals, rules for diagnosis, prevention and treatment of animals

1. List the immunosuppressive diseases of birds

2. Discuss the differential diagnosis of colibacillosis and pasteurellosis

Competency being developed: PC-5ID-8 Know the technique of introducing medicinal substances into the animal's body by enteral (oral, sublingual and rectal administration) and parenteral (injection, inhalation and cutaneous applications) methods.

1. Understand how a clinical study of poultry is carried out
2. Understand the signs of hypovitaminosis A in birds
3. To study what lesions occur in birds with mycoplasmosis

Competency being developed: PC-13 Organization of measures to protect the organization from the introduction of infectious and parasitic diseases in accordance with the plan of anti-epizootic measures:

PC-13ID-1 Know the types of measures to ensure veterinary and sanitary safety and the requirements for their implementation in accordance with the legislation of the Russian Federation in the field of veterinary medicine;

1. Study measures to combat infectious diseases of birds.
2. Study the list of modern vaccines.
3. Discuss hypervitaminosis and hypovitaminosis in birds.

Competency being developed: PC-14 Organization of preventive immunizations (vaccinations), medical and prophylactic treatments of animals in accordance with the plan of anti-epizootic measures, analysis of the effectiveness of measures for the prevention of animal diseases in order to improve them:

PC-14ID-1 Be able to evaluate the effectiveness of preventive measures taken and methods of their implementation, including using digital technologies;

1. Analyze the main symptoms of immunosuppressive diseases in birds.
2. List respiratory diseases of birds.
3. Understand the characteristics of infectious diseases of birds.

Competency being developed: PC-14ID-2 Know the procedure for conducting a clinical study of animals when planning preventive measures;

1. Study what drugs are used to treat tuberculosis and aspergillosis
2. Find out where the influenza virus is localized in the body of birds

Competency being developed: PC-14ID-3 Know the types of anti-epizootic measures and the requirements for their implementation in accordance with guidelines, instructions, manuals, rules for diagnosis, prevention and treatment of animals.

1. Study how the effectiveness of bird vaccination is determined.
2. Study the causes of lameness in adult birds in the household.
3. Determine the causes of mineral metabolism disorders in birds.

Test questions for the discipline “BIRD DISEASES”

Competency being developed: (PC-3) Making a diagnosis based on analysis of anamnesis data, general, special (instrumental) and laboratory research methods.

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

1. The task of the veterinary service of a poultry enterprise is:
 - a) treatment of sick birds
 - b) disease prevention
 - c) ensuring the quality and safety of poultry products for humans
 - d) a and b are correct
 - e) b and c are correct
 - f) everything is correct
2. Sanitation of poultry premises is carried out:
 - a) weekly
 - b) as microflora accumulates in the air
 - c) in the presence of a bird
 - d) aerosols of drugs
 - e) for the treatment of birds
 - f) everything is correct
 - g) b, c and d are correct
 - h) everything is wrong
3. Avian paramyxoviruses are dangerous:
 - a) for birds
 - b) for birds and people
 - c) for birds and rodents
 - d) for cats and dogs
 - e) everything is correct
4. Routine diagnostic studies of birds, if necessary, are carried out by:
 - a) for the flu
 - b) for Marek's disease
 - c) for leukemia
 - d) for salmonellosis
 - e) everything is correct
 - f) b and d are correct
 - g) correct c and d
 - h) everything is wrong

Competency being developed: PC-3ID-2 Be able to use specialized information databases for diagnosing animal diseases

5. Disorders of mineral metabolism in birds occur:
 - a) with a lack of minerals in the diet

- b) with a lack of proteins and vitamins in the diet
- c) at elevated temperatures in the poultry house
- d) with an increased content of harmful gases
- d) everything is correct
- e) a and b are correct

6. The effectiveness of bird vaccination is determined by:

- a) infecting several birds
- b) determining the titer of specific antibodies in the blood
- c) by productivity
- d) by the number of deaths and culling
- d) everything is correct
- e) correct c and d

7. Avian tuberculosis is dangerous for:

- a) wild birds of all kinds
- b) people
- c) for chicken birds
- d) for waterfowl
- d) everything is correct
- e) a and b are correct
- g) b and d are correct

Competency being developed: PC-3ID-3 Be able to document the results of clinical studies of animals using digital technologies

8. The cause of lameness in adult birds in the household may be:

- a) perosis
- b) gout
- c) disorders of mineral metabolism
- d) reoviral tenosynovitis
- d) everything is correct
- e) b and d are correct
- g) b and c are correct
- h) a and b are correct

9. Differential diagnosis of influenza and Newcastle disease of birds is carried out:

- a) according to clinical signs
- b) according to pathological changes
- c) according to the results of electron microscopy
- d) by antibody titer in the blood of sick birds
- e) by the presence of viral antigen in tissues
- e) everything is correct
- g) correct a, b, c

10. A person can become infected with aspergillosis:

- a) from a sick bird
- b) from a clinically healthy bird
- c) from a wild bird
- d) from poultry
- d) everything is wrong
- e) a and d are correct
- g) everything is correct

Competency being developed: PC-3ID-4 Know the methods of interpretation and analysis of data from special (instrumental) methods of animal research

11. Differential diagnosis of colibacillosis and pasteurellosis is carried out:

- a) according to clinical signs
- b) according to pathological changes
- c) according to the results of electron microscopy
- d) by antibody titer in the blood of sick birds
- e) by light microscopy of stained preparations
- e) everything is wrong
- g) correct a, b, d

12. Birds with influenza are treated:

- a) antimicrobial drugs
- b) antiviral drugs
- c) vitamins in high doses
- d) treatment has not been developed
- d) everything is wrong
- e) a and b are correct
- g) b and c are correct

Competency being developed: PC-3ID-5 Know the standards for indicators of the state of biological material of animals of different species and the reasons that cause deviations of indicators from the norms

13. Antibiotics for treating birds during acute outbreaks of viral diseases are selected depending on:

- a) clinical signs
- b) the breadth of the spectrum of action of the drug
- c) the age of the birds
- d) sensitivity of isolated pathogens
- d) everything is correct
- e) a and b are correct
- g) correct a, b, d

h) everything is wrong

14. For the treatment of tuberculosis and aspergillosis the following is used:

- a) antibiotics
- b) antiviral drugs
- c) sulfonamides
- d) everything is correct
- d) everything is wrong
- e) a and b are correct

15. Poultry mycoplasmosis may affect:

- a) eye
- b) respiratory organs
- c) joints
- d) ovary
- d) everything is correct
- e) a and b are correct
- g) a, b and d are correct

16. Rhinitis is...

- a) Inflammation of the mucous membrane of the trachea.
- b) Inflammation of the mucous membrane of the nasal passages.
- c) Inflammation of the mucous membrane of the sinuses.
- d) Inflammation of the wound.

17. The main cause of rhinitis...

- a) Hypothermia of young and adult birds.
- b) Exposure to cold rain and snow.
- c) Keeping poultry in stagnant, heavily polluted water bodies.
- d) Accumulation of ammonia and microflora in the premises.

18. Cuticle is called...

- a) Section of the intestine of a bird.
- b) Skin growth near the claws.
- c) The third eyelid of a bird.
- d) Muscular stomach in a bird.

19. Cloacite is...

- a) Inflammation of the mucous membrane of the cloaca.
- b) Inflammation of the beak.
- c) Obstruction of the cloaca.
- d) Cloaca prolapse.

20. Yolk peritonitis in Latin is called...

- a) Salpengoperitanitis
- b) Solpingoperitonitis
- c) Salpingoperitonitis
- d) Solpenhoperitonitis

Competency being developed: PC-3ID-6 Know the etiology and pathogenesis of animal diseases of various species

21. A sign of hypovitaminosis A in birds is:

- a) blindness
- b) peeling of the skin
- c) intense color of egg yolk
- d) everything is correct
- d) everything is wrong
- e) a and b are correct

22. In the body of birds, the influenza virus is localized:

- a) in the endothelium of blood vessels
- b) in the epithelium of the respiratory organs
- c) in the brain
- d) everything is correct
- d) everything is wrong
- e) a and b are correct

23. Isolation of the avian infectious laryngotracheitis virus from the body of birds occurs through:

- a) respiratory organs
- b) eyes
- c) gastrointestinal tract
- d) skin
- d) everything is correct
- e) a and b are correct

Competency being developed: PC-3ID-7 Know generally accepted criteria and classifications of animal diseases, approved lists of animal diseases

24. Birds can excrete vaccine viruses from their bodies after use:

- a) inactivated vaccines
- b) attenuated vaccines
- c) vaccines with adjuvants
- d) associated live vaccines
- d) everything is correct
- e) b and d are correct

25. Live vaccines can be used:

- a) injection
- b) intraocular
- d) orally
- d) everything is correct
- e) a and b are correct
- g) a, b and c are correct
- i) everything is wrong

26. Inactivated vaccines can be used:

- a) injection
- b) rubbing into the mucous membrane of the cloaca
- c) rubbing into feather follicles
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27. With uric acid diathesis in old hens and roosters, signs are noted...

- a) Inflammation of the joints.
- b) Gout.
- c) Salt deposits.
- d) Inflammation of the liver.

28. Hepatitis happens along the way...

- a) Only spicy.
- b) Acute, subacute and chronic.
- c) Acute and subacute.
- d) Acute and chronic.

29. Sinusitis is...

- a) Inflammation of the mucous membrane of the nasal passages.
- b) Inflammation of the nasal passages and paranasal sinuses.
- c) Inflammation of the mucous membrane of the accessory sinuses.
- d) Inflammation of the synovial membrane.

30. Vaccine strains of Newcastle disease virus

- a) La Sota
- b) Clone-30
- c) Bor-74
- d) All answers

31. A sign of hypovitaminosis A in birds is:

- a) blindness
- b) peeling of the skin
- c) intense color of egg yolk
- d) everything is correct
- d) everything is wrong
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32. In the body of birds, the influenza virus is localized:

- a) in the endothelium of blood vessels
- b) in the epithelium of the respiratory organs
- c) in the brain
- d) everything is correct
- d) everything is wrong
- e) a and b are correct

33. Isolation of the avian infectious laryngotracheitis virus from the body of birds occurs through:

- a) respiratory organs
- b) eyes
- c) gastrointestinal tract
- d) skin
- d) everything is correct
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34. The cause of rhinitis and sinusitis in goslings and ducklings...

- a) Hypothermia of young and adult birds.
- b) Exposure to cold rain and snow.
- c) Keeping poultry in stagnant, heavily polluted water bodies.
- d) Accumulation of ammonia and microflora in the premises.

35. Pneumoaerosacculitis is...

- a) Inflammation of the lungs and air sacs.
- b) Pneumonia in poultry.
- c) Inflammation of the air sacs in birds.
- d) Inflammation of the bladder in birds.

36. Prevention of goiter inflammation in poultry is...

- a) Feeding poor-quality feed, drinking from contaminated sources.
- b) Avoid overfeeding or long breaks in feeding.
- c) Poultry must be provided with sufficient drinking water water.
- d) Avoid feeding poor-quality feed and water from

contaminated source.

37. Gastroenteritis happens along the way...

- a) Acute, subacute and chronic.
- b) Acute and chronic.
- c) Acute and subacute.
- d) Only spicy.

38. Symptoms of fatty hepatosis in poultry are...

- a) Egg production decreases, the bird becomes lethargic, sits for a long time, body weight increases, diarrhea or constipation appears.
 - b) The bird is depressed, decreased appetite, lethargy, cyanosis of the comb or earrings.
 - c) Feces are a white semi-liquid mass, the skin around the cloaca is inflamed, the bird is depressed.
 - d) Young animals are stunted, egg production and hatchability in laying hens decrease
- eggs, symptoms of gastroenteritis appear, body weight increases.

39. Symptoms of tocopherol deficiency in chickens are...

- a) Hemorrhages in the subcutaneous tissue, pale skin.
- b) Chickens are stunted and depressed.
- c) Loss of appetite, lethargy, unsteady gait, movements in circles, curling fingers.
- d) Perverted appetite, ruffled feathers, drooping wings, weakness and curvature of the limbs, lameness.

40. Glossitis is...

- a) Inflammation of the tongue.
- b) Inflammation of the pharynx.
- c) Inflammation of the gums.
- d) Inflammation of teeth

Competency being developed: - (PC-5) Development of a treatment plan for animals based on the established diagnosis and individual characteristics of the animals, selection of the necessary drugs of a chemical and biological nature for the treatment of animals, taking into account their total pharmacological effect on the body

PC-5ID-1 Be able to use specialized information databases when choosing methods of treating animals

1. Differential diagnosis of colibacillosis and pasteurellosis is carried out:

- a) according to clinical signs

- b) according to pathological changes
- c) according to the results of electron microscopy
- d) by antibody titer in the blood of sick birds
- e) by light microscopy of stained preparations
- e) everything is wrong
- g) correct a, b, d

2. Birds with influenza are treated:

- a) antimicrobial drugs
- b) antiviral drugs
- c) vitamins in high doses
- d) treatment has not been developed
- d) everything is wrong
- e) a and b are correct
- g) b and c are correct

Competency being developed: - PC-5ID-2 Be able to calculate the amount of medicines for treating animals and preventing diseases with drawing up prescriptions for a certain period.

3. Antibiotics for treating birds during acute outbreaks of viral diseases are selected depending on:

- a) clinical signs
- b) the breadth of the spectrum of action of the drug
- c) the age of the birds
- d) sensitivity of isolated pathogens
- d) everything is correct
- e) a and b are correct
- g) correct a, b, d
- h) everything is wrong

4. For the treatment of tuberculosis and aspergillosis, the following is used:

- a) antibiotics
- b) antiviral drugs
- c) sulfonamides
- d) everything is correct
- d) everything is wrong
- e) a and b are correct

Competency being developed: PC-5ID-3 Be able to calculate the amount of medicines for treating animals and preventing diseases with the preparation of prescriptions for a certain period, including using digital technologies

5. A sign of hypovitaminosis A in birds is:
- a) blindness
 - b) peeling of the skin
 - c) intense color of egg yolk
 - d) everything is correct
 - d) everything is wrong
 - e) a and b are correct
6. In the body of birds, the influenza virus is localized:
- a) in the endothelium of blood vessels
 - b) in the epithelium of the respiratory organs
 - c) in the brain
 - d) everything is correct
 - d) everything is wrong
 - e) a and b are correct
7. Isolation of the avian infectious laryngotracheitis virus from the body of birds occurs through:
- a) respiratory organs
 - b) eyes
 - c) gastrointestinal tract
 - d) skin
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- a) Hypothermia of young and adult birds.
 - b) Exposure to cold rain and snow.
 - c) Keeping poultry in stagnant, heavily polluted water bodies.
 - d) Accumulation of ammonia and microflora in the premises.
9. Pneumo-aeroculitis is...
- a) Inflammation of the lungs and air sacs.
 - b) Pneumonia in poultry.
 - c) Inflammation of the air sacs in birds.
 - d) Inflammation of the bladder in birds.
10. Prevention of goiter inflammation in poultry is...
- a) Feeding poor-quality feed, drinking from contaminated sources.
 - b) Avoid overfeeding or long breaks in feeding.
 - c) Poultry must be provided with sufficient drinking water.
 - d) Avoid feeding poor-quality feed and water from

contaminated source.

11. Gastroenteritis happens along the way...

- a) Acute, subacute and chronic.
- b) Acute and chronic.
- c) Acute and subacute.
- d) Only spicy.

12. Symptoms of fatty hepatosis in poultry are...

- a) Egg production decreases, the bird becomes lethargic, sits for a long time, body weight increases, diarrhea or constipation appears.
- b) The bird is depressed, decreased appetite, lethargy, cyanosis of the comb or earrings.
- c) Feces are a white semi-liquid mass, the skin around the cloaca is inflamed, the bird is depressed.
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- a) Hemorrhages in the subcutaneous tissue, pale skin.
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- c) Loss of appetite, lethargy, unsteady gait, movements in circles, curling fingers.
- d) Perverted appetite, ruffled feathers, drooping wings, weakness and curvature of the limbs, lameness.

14. Glossitis is...

- a) Inflammation of the tongue.
- b) Inflammation of the pharynx.
- c) Inflammation of the gums.
- d) Inflammation of teeth

Competency being developed: PC-5ID-4 Be able to administer drugs into the body of animals in various ways;

15. Birds can excrete vaccine viruses from their bodies after use:

- a) inactivated vaccines
- b) attenuated vaccines
- c) vaccines with adjuvants
- d) associated live vaccines
- d) everything is correct
- e) b and d are correct

16. Live vaccines can be used:

- a) injection
- b) intraocular
- d) orally
- d) everything is correct
- e) a and b are correct
- g) a, b and c are correct
- i) everything is wrong

Competency being developed: PC-5ID-5 Know methods of drug treatment of sick animals and indications for their use in accordance with guidelines, instructions, manuals, rules for diagnosis, prevention and treatment of animals

17. Inactivated vaccines can be used:

- a) injection
- b) rubbing into the mucous membrane of the cloaca
- c) rubbing into feather follicles
- d) orally
- d) everything is correct
- e) a and b are correct
- g) a, b and c are correct

18. Clinical study of poultry:

- a) group
- b) individual
- c) massive
- d) group and individual

19. How many times a day should a healthy bird be examined:

- a) five
- b) three
- at two
- d) one

Competency being developed: PC-5ID-8 Know the technique of introducing medicinal substances into the animal's body by enteral (oral, sublingual and rectal administration) and parenteral (injection, inhalation and cutaneous applications) methods.

20. Birds can excrete vaccine viruses from their bodies after use:

- a) inactivated vaccines
- b) attenuated vaccines

- c) vaccines with adjuvants
- d) associated live vaccines
- d) everything is correct
- e) b and d are correct

21. Live vaccines can be used:

- a) injection
- b) intraocular
- d) orally
- d) everything is correct
- e) a and b are correct
- g) a, b and c are correct
- i) everything is wrong

22. Inactivated vaccines can be used:

- a) injection
- b) rubbing into the mucous membrane of the cloaca
- c) rubbing into feather follicles
- d) orally
- d) everything is correct
- e) a and b are correct
- g) a, b and c are correct

23. Antibiotics for treating birds during acute outbreaks of viral diseases are selected depending on:

- a) clinical signs
- b) the breadth of the spectrum of action of the drug
- c) the age of the birds
- d) sensitivity of isolated pathogens
- d) everything is correct
- e) a and b are correct
- g) correct a, b, d
- h) everything is wrong

24. For the treatment of tuberculosis and aspergillosis the following is used:

- a) antibiotics
- b) antiviral drugs
- c) sulfonamides
- d) everything is correct
- d) everything is wrong
- e) a and b are correct

25. Poultry mycoplasmosis may affect:

- a) eye
- b) respiratory organs
- c) joints
- d) ovary
- d) everything is correct
- e) a and b are correct
- g) a, b and d are correct

26. Rhinitis is...

- a) Inflammation of the mucous membrane of the trachea.
- b) Inflammation of the mucous membrane of the nasal passages.
- c) Inflammation of the mucous membrane of the sinuses.
- d) Inflammation of the wound.

27. The main cause of rhinitis...

- a) Hypothermia of young and adult birds.
- b) Exposure to cold rain and snow.
- c) Keeping poultry in stagnant, heavily polluted water bodies.
- d) Accumulation of ammonia and microflora in the premises.

28. Cuticle is called...

- a) Section of the intestine of a bird.
- b) Skin growth near the claws.
- c) The third eyelid of a bird.
- d) Muscular stomach in a bird.

29. Cloacite is...

- a) Inflammation of the mucous membrane of the cloaca.
- b) Inflammation of the beak.
- c) Obstruction of the cloaca.
- d) Cloaca prolapse.

30. Yolk peritonitis in Latin is called...

- a) Salpengoperitanitis
- b) Solpingoperitonitis
- c) Salpingoperitonitis
- d) Solpenhoperitonitis

31. In birds, the parts of the brain are especially well developed:

- a) midbrain
- b) forebrain hemispheres
- c) cerebellum
- d) diencephalon

32. Flying birds develop a high keel on the sternum because:

- a) it protects the chest organs
- b) cuts through the air during flight
- c) provides a streamlined body shape
- d) strong pectoral muscles are attached to it

33. For birds, the most favorable living conditions are in the following environments:

- a) soil
- b) water
- c) ground - air
- d) organismic

34. Fast running birds have the following number of toes compared to flying ones:

- a) increased
- b) reduced
- c) no different

35. Bird plumage:

- a) enhances the streamlining of the body shape
- b) retains heat
- c) promotes flight
- d) provides skin hydration

36. Birds can be active in the cold season because:

- a) their body temperature is constant and high
- b) the body is covered with feathers
- c) they are characterized by intense metabolism
- d) the forelimbs turned into wings

37. Vocal apparatus of birds:

- a) beak
- b) trachea
- c) lower larynx
- d) vocal cords

38. Lack of teeth in birds:

- a) improves prey retention
- b) lightens the weight of the bird's head
- c) weakens the bird's defenses
- d) ensures rapid swallowing of food

39. Feathers play the main role in flight:

- a) downy
- b) flywheels
- c) contour on the body
- d) helmsmen

40. In the body of birds, the influenza virus is localized:

- a) in the endothelium of blood vessels
- b) in the epithelium of the respiratory organs
- c) in the brain
- d) everything is correct
- d) everything is wrong
- e) correct, a and b

Competency being developed: PC-13 Organization of measures to protect the organization from the introduction of infectious and parasitic diseases in accordance with the plan of anti-epizootic measures:

PC-13ID-1 Know the types of measures to ensure veterinary and sanitary safety and the requirements for their implementation in accordance with the legislation of the Russian Federation in the field of veterinary medicine;

1. A sign of hypovitaminosis A in birds is:

- a) blindness
- b) peeling of the skin
- c) intense color of egg yolk
- d) everything is correct
- d) everything is wrong
- e) a and b are correct

2. In the body of birds, the influenza virus is localized:

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- d) everything is correct
- d) everything is wrong
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3. Isolation of the avian infectious laryngotracheitis virus from the body of birds occurs through:

- a) respiratory organs
- b) eyes
- c) gastrointestinal tract
- d) skin
- d) everything is correct
- e) a and b are correct

4. How can rhinitis and sinusitis in birds be complicated if left untreated...
- a) Inflammation of the larynx, trachea and lungs.
 - b) Inflammation of the larynx.
 - c) Inflammation of the brain and its membranes.
 - d) The death of a bird.
5. The main cause of pneumoacrocystitis is...
- a) With low body resistance.
 - b) When moving from brooders to cold water bodies.
 - c) Under unfavorable temperature and humidity conditions.
 - d) Use of rotten feed affected by toxic fungi.
6. The appearance of cuticulitis in young animals in the first days of life is associated with...
- a) Greedy swallowing of dry food.
 - b) Lack of vitamins A, D, E and complex vitamins in the diets of laying hens IN.
 - c) Lack or absence in the diet of feed containing vitamin-like substance that is anti-inflammatory factor.
 - d) Long-term absence of gravel in the diet.
7. Uric acid diathesis is...
- a) A disease characterized by increased production of urinary acid and deposition of its salts on the serous membranes of the abdominal cavity cavities, air sacs, kidneys, liver and other organs.
 - b) A disease characterized by egg retention mainly in the terminal part of the oviduct.
 - c) A disease of birds that manifests itself in pecking each other.
 - d) A disease characterized by metoplasia and keratinization of the epithelium mucous membranes, delayed growth and development.
8. The main cause of phyloquinone deficiency in poultry...
- a) Feeding poultry rancid fats and poor-quality feed.
 - b) Insufficiency of endogenous vitamin synthesis.
 - c) Lack of vitamin in feed.
 - d) Lack or lack of green food in the diet.
9. Sick birds during the elimination of Newcastle disease:
- a) Carcasses and internal organs are disposed of
 - b) Carcasses are gutted and released for sale without restrictions
 - c) They are killed by a bloodless method and burned
 - d) Down and feathers are disinfected, carcasses are boiled, internal organs are disposed of

e) Selling for slaughter is prohibited

10. If the titer of antibodies to the Newcastle disease virus is below 1:8, then poultry necessary:

- a) Immunize
- b) Slaughter
- c) Send for industrial processing
- d) Vaccinate
- e) Subject to antibiotic therapy

11. Chronic tumor disease, manifested by systemic progressive pathological proliferation of hematopoietic cells of the hematopoietic organs and beyond is:

- a) Vitamin deficiency A
- b) Leukemia
- c) Infectious laryngotracheitis of chickens
- d) Gout
- e) Perosis

12. Poultry farming is considered unfavorable for leukemia, where mortality from leukemia is:

- a) more than 5% of the total case
- b) less than 15% of the total case
- c) 20% of the total case
- d) 1% of the total case
- e) more than 15% of the total case

13. Infectious bronchitis of chickens is characterized by:

- a) Damage to the respiratory system in chickens, reproductive organs with decreased egg production in chickens and uric acid diathesis in roosters
- b) Damage to the mucous membrane of the respiratory tract and eyes
- c) Development of smallpox exanthema on non-feathered areas of the skin and diphtheritic lesions of the oral mucosa
- d) Symptoms of damage to the nervous system, high morbidity and mortality
- e) Formation of tuberculous granulomas in parenchymal organs, bone marrow and intestines

14. The bird is susceptible to the pathogen b. Marek at the age of:

- a) 6 – 12 months.
- b) 30 days and older
- c) 20 days and older
- d) 1 – 5 to 10 months.
- e) 4 – 5 months.

15. Signs of hemorrhagic tracheitis appear when:

- a) Smallpox
- b) Hemophilosis
- c) Gout
- d) ILT
- e) Vitamin deficiency A

16. Cytoplasmic Bollinger-Borrell bodies are a specific feature:

- a) IBB
- b) Avian influenza
- c) Marek's disease
- d) Perosis
- e) Smallpox

17. *Haemophilus paragallinarum* and *Haemophilus avium* only infect:

- a) Intestinal mucosa
- b) Airways and conjunctiva
- c) Reproductive organs
- d) Glandular stomach
- e) Joints of the limbs

18. In dysfunctional poultry farms due to Marek's disease
Eggs are disinfected:

- a) four times
- b) twice
- c) once
- d) constantly

19. The causative agent of bird plague is:

- a) DNA-containing virus of the family. Poxviridae
- b) *Chlamydia psittaci*
- c) DNA-containing virus of the family. Herpesviridae
- d) RNA-containing virus of the family. Orthomyxoviridae
- e) RNA-containing virus of the family. Oncoviridae

20. The normal content of uric salts in the blood of birds is:

- a) 2 – 8 mg%
- b) 10 – 15 mg%
- c) 5 – 15 mg%
- d) 30 – 50 mg%
- e) 22 – 26 mg%

21. Deposition of uric acid salts in the joints in the form of white clots, white semi-liquid or dense mass is observed when:

- a) Apteriosis
- b) E-hypovitaminosis
- c) ILT
- d) Newcastle disease
- e) Gout

22. A disease characterized by impaired bone formation, relaxation of the ligaments and tendons of the muscles of the limbs called:

- a) Apteriosis
- b) Perosis
- c) Gout
- d) Aerosaculitis
- d) Pseudo-plague

23. Isolation of the avian infectious laryngotracheitis virus from the body of birds occurs through:

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- d) Perverted appetite, ruffled feathers, drooping wings, weakness and curvature of the limbs, lameness.

40. Birds with influenza are treated:

- a) antimicrobial drugs
- b) antiviral drugs
- c) vitamins in high doses
- d) treatment has not been developed
- d) everything is wrong
- e) a and b are correct
- g) b and c are correct

Competency being developed: PC-14 Organization of preventive immunizations (vaccinations), therapeutic and prophylactic treatments of animals in accordance with the plan of anti-epizootic measures, analysis of the effectiveness of measures for the prevention of animal diseases in order to improve them:

PC-14ID-1 Be able to evaluate the effectiveness of preventive measures taken and methods of their implementation, including using digital technologies;

1. Antibiotics for treating birds during acute outbreaks of viral diseases are selected depending on:

- a) clinical signs
- b) the breadth of the spectrum of action of the drug
- c) the age of the birds
- d) sensitivity of isolated pathogens
- d) everything is correct
- e) a and b are correct
- g) correct a, b, d

- h) everything is wrong
- 2. For the treatment of tuberculosis and aspergillosis the following is used:
 - a) antibiotics
 - b) antiviral drugs
 - c) sulfonamides
 - d) everything is correct
 - d) everything is wrong
 - e) a and b are correct

Competency being developed: PC-14ID-2 Know the procedure for conducting a clinical study of animals when planning preventive measures;

3. Inactivated vaccines can be used:
- a) injection
 - b) rubbing into the mucous membrane of the cloaca
 - c) rubbing into feather follicles
 - d) orally
 - d) everything is correct
 - e) a and b are correct
 - g) a, b and c are correct

4. Clinical study of poultry:

- a) group
- b) individual
- c) massive
- d) group and individual

5. How many times a day should a healthy bird be examined:

- a) five
- b) three
- at two
- d) one

Competency being developed: PC-14ID-3 Know the types of anti-epizootic measures and the requirements for their implementation in accordance with guidelines, instructions, manuals, rules for diagnosis, prevention and treatment of animals.

6. Differential diagnosis of colibacillosis and pasteurellosis is carried out:

- a) according to clinical signs
- b) according to pathological changes
- c) according to the results of electron microscopy
- d) by antibody titer in the blood of sick birds
- e) by light microscopy of stained preparations
- e) everything is wrong

g) correct a, b, d

7. Birds with influenza are treated:

- a) antimicrobial drugs
- b) antiviral drugs
- c) vitamins in high doses
- d) treatment has not been developed
- d) everything is wrong
- e) a and b are correct
- g) b and c are correct

8. The cause of lameness in adult birds in the household may be:

- a) perosis
- b) gout
- c) disorders of mineral metabolism
- d) reoviral tenosynovitis
- d) everything is correct
- e) b and d are correct
- g) b and c are correct
- h) a and b are correct

9. Differential diagnosis of influenza and Newcastle disease of birds is carried out:

- a) according to clinical signs
- b) according to pathological changes
- c) according to the results of electron microscopy
- d) by antibody titer in the blood of sick birds
- e) by the presence of viral antigen in tissues
- e) everything is correct
- g) a, b, c are correct

10. A person can become infected with aspergillosis:

- a) from a sick bird
- b) from a clinically healthy bird
- c) from a wild bird
- d) from poultry
- d) everything is wrong
- e) a and d are correct
- g) everything is correct

11. Differential diagnosis of colibacillosis and pasteurellosis is carried out:

- a) according to clinical signs
- b) according to pathological changes
- c) according to the results of electron microscopy

- d) by antibody titer in the blood of sick birds
- e) by light microscopy of stained preparations
- e) everything is wrong
- g) correct a, b, d

12. Birds with influenza are treated:

- a) antimicrobial drugs
- b) antiviral drugs
- c) vitamins in high doses
- d) treatment has not been developed
- d) everything is wrong
- e) a and b are correct
- g) b and c are correct

13. Antibiotics for treating birds during acute outbreaks of viral diseases are selected depending on:

- a) clinical signs
- b) the breadth of the spectrum of action of the drug
- c) the age of the birds
- d) sensitivity of isolated pathogens
- d) everything is correct
- e) a and b are correct
- g) correct a, b, d
- h) everything is wrong

14. For the treatment of tuberculosis and aspergillosis the following is used:

- a) antibiotics
- b) antiviral drugs
- c) sulfonamides
- d) everything is correct
- d) everything is wrong
- e) a and b are correct

15. Poultry mycoplasmosis may affect:

- a) eye
- b) respiratory organs
- c) joints
- d) ovary
- d) everything is correct
- e) a and b are correct
- g) a, b and d are correct

16. Rhinitis is...

- a) Inflammation of the mucous membrane of the trachea.
- b) Inflammation of the mucous membrane of the nasal passages.
- c) Inflammation of the mucous membrane of the sinuses.
- d) Inflammation of the wound.

17. The main cause of rhinitis...

- a) Hypothermia of young and adult birds.
- b) Exposure to cold rain and snow.
- c) Keeping poultry in stagnant, heavily polluted water bodies.
- d) Accumulation of ammonia and microflora in the premises.

18. Cuticle is called...

- a) Section of the intestine of a bird.
- b) Skin growth near the claws.
- c) The third eyelid of a bird.
- d) Muscular stomach in a bird.

19. Cloacite is...

- a) Inflammation of the mucous membrane of the cloaca.
- b) Inflammation of the beak.
- c) Obstruction of the cloaca.
- d) Cloaca prolapse.

20. Yolk peritonitis in Latin is called...

- a) Salpengoperitanitis
- b) Solpingoperitonitis
- c) Salpingoperitonitis
- d) Solpenhoperitonitis

21. A sign of hypovitaminosis A in birds is:

- a) blindness
- b) peeling of the skin
- c) intense color of egg yolk
- d) everything is correct
- d) everything is wrong
- e) a and b are correct

22. In the body of birds, the influenza virus is localized:

- a) in the endothelium of blood vessels
- b) in the epithelium of the respiratory organs
- c) in the brain
- d) everything is correct
- d) everything is wrong

e) a and b are correct

23. Isolation of the avian infectious laryngotracheitis virus from the body of birds occurs through:

- a) respiratory organs
- b) eyes
- c) gastrointestinal tract
- d) skin
- d) everything is correct
- e) a and b are correct

24. Birds can excrete vaccine viruses from their bodies after use:

- a) inactivated vaccines
- b) attenuated vaccines
- c) vaccines with adjuvants
- d) associated live vaccines
- d) everything is correct
- e) b and d are correct

25. Live vaccines can be used:

- a) injection
- b) intraocular
- d) orally
- d) everything is correct
- e) a and b are correct
- g) a, b and c are correct
- i) everything is wrong

26. Inactivated vaccines can be used:

- a) injection
- b) rubbing into the mucous membrane of the cloaca
- c) rubbing into feather follicles
- d) orally
- d) everything is correct
- e) a and b are correct
- g) a, b and c are correct

27. With uric acid diathesis in old hens and roosters, signs are noted...

- a) Inflammation of the joints.
- b) Gout.
- c) Salt deposits.
- d) Inflammation of the liver.

28. Hepatitis happens along the way...

- a) Only spicy.
- b) Acute, subacute and chronic.
- c) Acute and subacute.
- d) Acute and chronic.

29. Sinusitis is...

- a) Inflammation of the mucous membrane of the nasal passages.
- b) Inflammation of the nasal passages and paranasal sinuses.
- c) Inflammation of the mucous membrane of the accessory sinuses.
- d) Inflammation of the synovial membrane.

30. Vaccine strains of Newcastle disease virus

- a) La Sota
- b) Clone-30
- c) Bor-74
- d) All answers

31. A sign of hypovitaminosis A in birds is:

- a) blindness
- b) peeling of the skin
- c) intense color of egg yolk
- d) everything is correct
- d) everything is wrong
- e) a and b are correct

32. In the body of birds, the influenza virus is localized:

- a) in the endothelium of blood vessels
- b) in the epithelium of the respiratory organs
- c) in the brain
- d) everything is correct
- d) everything is wrong
- e) a and b are correct

33. Isolation of the avian infectious laryngotracheitis virus from the body of birds occurs through:

- a) respiratory organs
- b) eyes
- c) gastrointestinal tract
- d) skin
- d) everything is correct
- e) a and b are correct

34. The cause of rhinitis and sinusitis in goslings and ducklings...
- a) Hypothermia of young and adult birds.
 - b) Exposure to cold rain and snow.
 - c) Keeping poultry in stagnant, heavily polluted water bodies.
 - d) Accumulation of ammonia and microflora in the premises.
35. Pneumoaerosacculitis is...
- a) Inflammation of the lungs and air sacs.
 - b) Pneumonia in poultry.
 - c) Inflammation of the air sacs in birds.
 - d) Inflammation of the bladder in birds.
36. Prevention of goiter inflammation in poultry is...
- a) Feeding poor-quality feed, drinking from contaminated sources.
 - b) Avoid overfeeding or long breaks in feeding.
 - c) Poultry must be provided with sufficient drinking water water.
 - d) Avoid feeding poor-quality feed and water from contaminated source.
37. Gastroenteritis happens along the way...
- a) Acute, subacute and chronic.
 - b) Acute and chronic.
 - c) Acute and subacute.
 - d) Only spicy.
38. Symptoms of fatty hepatosis in poultry are...
- a) Egg production decreases, the bird becomes lethargic, sits for a long time, body weight increases, diarrhea or constipation appears.
 - b) The bird is depressed, decreased appetite, lethargy, cyanosis of the comb or earrings.
 - c) Feces are a white semi-liquid mass, the skin around the cloaca is inflamed, the bird is depressed.
 - d) Young animals are stunted, egg production and hatchability in laying hens decrease
eggs, symptoms of gastroenteritis appear, body weight increases.
39. Symptoms of tocopherol deficiency in chickens are...
- a) Hemorrhages in the subcutaneous tissue, pale skin.
 - b) Chickens are stunted and depressed.
 - c) Loss of appetite, lethargy, unsteady gait, movements in circles, curling fingers.

d) Perverted appetite, ruffled feathers, drooping wings, weakness and curvature of the limbs, lameness.

40. Birds with influenza are treated:

- a) antimicrobial drugs
- b) antiviral drugs
- c) vitamins in high doses
- d) treatment has not been developed
- d) everything is wrong
- e) a and b are correct
- g) b and c are correct

List of questions for testing

Competency being developed: - (PC-3 Diagnosis based on analysis of anamnesis data, general, special (instrumental) and laboratory research methods

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

PC-3ID-2 Be able to use specialized information databases for diagnosing animal diseases

PC-3ID-3 Be able to document the results of clinical studies of animals using digital technologies

PC-3ID-4 Know the methods of interpretation and analysis of data from special (instrumental) methods of animal research

PC-3ID-5 Know the norms of indicators of the state of biological material of animals of different species and the reasons that cause deviations of indicators from the norms

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

PC-3ID-7 Know generally accepted criteria and classifications animal diseases, approved lists of animal diseases

1. The structure of industrial poultry farming, types of farms, their tasks and methods of implementing tasks.
2. Methods of keeping and feeding birds, a brief description of the main industrial breeds.
3. The influence of the conditions of industrial keeping of birds on their health.
4. The main tasks of veterinary technology in industrial poultry farming and methods for solving them.
5. Basic principles of biosafety.
6. Key points in biosafety management, the most risky stages, ways to reduce the risk of pathogen introduction.
7. Ways to prevent infection of people.
8. HACCP system.

9. Brief characteristics of diseases caused by avian PMV serotypes.
10. Newcastle disease. Etiology, pathogenesis, epizootic features, clinical and pathological signs, diagnosis, control and prevention measures.
11. Causes, pathogenesis, clinical and pathological signs of avian influenza.
12. Methods for diagnosing avian influenza. Differential diagnosis.
13. Methods for eliminating avian influenza. Prevention.
14. Classification of avian mycoplasmosis.
15. Causes, pathogenesis, clinical and pathological signs of avian mycoplasmosis.

Competency being developed: - (PC-5 Development of a treatment plan for animals based on the established diagnosis and individual characteristics of the animals, selection of the necessary drugs of a chemical and biological nature for the treatment of animals, taking into account their total pharmacological effect on the body:

PC-5ID-1 Be able to use specialized information databases when choosing methods of treating animals;

PK-5ID-2 Be able to calculate the amount of medicines for treating animals and preventing diseases with drawing up prescriptions for a certain period;

PK-5ID-3 Be able to calculate the amount of medicines for the treatment of animals and the prevention of diseases with the preparation of prescriptions for a certain period, including using digital technologies;

PK-5ID-4 Be able to administer drugs into the body of animals in various ways;

PC-5ID-5 Know the methods of drug treatment of sick animals and indications for their use in accordance with guidelines, instructions, manuals, rules for diagnosis, prevention and treatment of animals;

PC-5ID-8 Know the technique of introducing medicinal substances into the animal's body by enteral (oral, sublingual and rectal administration) and parenteral (injection, inhalation and cutaneous applications) methods.

1. Measures for the prevention and control of avian mycoplasmosis.
2. Structure of the veterinary service of the poultry farm.
3. Methods of catching and fixing birds.
4. Medical examination method and its use in group research.
5. Individual clinical study, work procedure.
6. The procedure for group study of birds.
7. How to evaluate a bird's reaction to stimuli?
8. How to measure body temperature in birds?
9. How to evaluate breathing and heart function in birds?
10. How to assess the condition of the feather and skin?

Formed competence: - (PC-13 Organization of measures to protect the organization from the introduction of infectious and parasitic diseases in accordance with the plan of anti-epizootic measures:

PC-13ID-1 Know the types of measures to ensure veterinary and sanitary safety and the requirements for their implementation in accordance with the legislation of the Russian Federation in the field of veterinary medicine;

1. What diseases are observed in birds when mineral metabolism is disrupted?
2. Causes of mineral metabolism disorders in birds.
3. Causes of cannibalism.
4. Diagnosis of bird diseases associated with impaired mineral metabolism.
5. Treatment and prevention of mineral metabolism disorders in birds.
6. Causes of gout and perosis in birds.
7. Treatment and prevention of gout and perosis in birds.
8. Egg formation.
9. Diseases of the organs of egg production

Competencies being developed: - PC-14 Organization of preventive immunizations (vaccinations), therapeutic and prophylactic treatments of animals in accordance with the plan of anti-epizootic measures, analysis of the effectiveness of measures for the prevention of animal diseases in order to improve them:

PC-14ID-1 Be able to evaluate the effectiveness of preventive measures taken and methods of their implementation, including using digital technologies;

PC-14ID-2 Know the procedure for conducting a clinical study of animals when planning preventive measures;

PC-14ID-3 Know the types of anti-epizootic measures and the requirements for their implementation in accordance with guidelines, instructions, manuals, rules for diagnosis, prevention and treatment of animals

10. Name the signs and ways to help with egg retention.
11. Egg incubation systems.
12. How are eggs selected for incubation?
13. How is technological control of egg incubation carried out?
14. Methods of biological control of egg incubation.
15. Classification of embryonic diseases.
16. Differential diagnosis of smallpox and ILT.
17. Differential diagnosis of Marek's disease and avian leukemia.
18. Classification of avian leukemia.
19. Causes, pathogenesis, clinical and pathological signs of avian tuberculosis.
20. Diagnosis of avian tuberculosis.
21. Diagnosis of salmonellosis in birds.
22. A comprehensive method for improving the health of farms from salmonellosis.
23. Vaccines for the prevention of colibacillosis and pasteurellosis in birds. Rules for their application.

4. METHODOICAL MATERIALS DEFINING THE PROCEDURES OF EVALUATION OF KNOWLEDGE, SKILLS AND EXPERIENCE OF ACTIVITY CHARACTERISING THE STAGES OF COMPETENCES FORMATION.

Criteria for assessing the knowledge of students during the colloquium:

- Mark 'excellent' - the learner clearly expresses his point of view on the issues under consideration, giving relevant examples.
- Mark 'good' - the student makes some errors in the answer
- The mark 'satisfactory' - the student reveals gaps in knowledge of basic educational and regulatory material.
- Mark 'unsatisfactory' - the student reveals significant gaps in knowledge of the basic provisions of the discipline, inability to get the correct solution to a particular practical problem with the help of the teacher.

Criteria for assessing the knowledge of students during testing:

The result of testing is evaluated on a percentage rating scale. Each student is offered a set of test tasks of 25 questions:

- Mark 'excellent' - 25-22 correct answers.
- Good' mark - 21-18 correct answers.
- The mark 'satisfactory' - 17-13 correct answers.
- The mark 'unsatisfactory' - less than 13 correct answers

Knowledge criteria for crediting:

- The grade 'pass' should correspond to the parameters of any of the positive grades ('excellent', 'good', 'satisfactory').

- A grade of 'pass' should correspond to the parameters of the 'unsatisfactory' grade.

- The mark 'excellent' - all types of academic work provided for in the curriculum. The student demonstrates the conformity of knowledge, skills, abilities, skills given in the tables of indicators, operates the acquired knowledge, skills, abilities, skills, applies them in situations of increased complexity. At the same time, there may be inaccuracies, difficulties in analytical operations, transfer of knowledge and skills to new, non-standard situations.

- The mark 'good' - all types of academic work provided by the curriculum have been completed. The student demonstrates compliance of knowledge, skills and abilities with the indicators given in the tables, operates the acquired knowledge, skills and abilities, applies them in standard situations. There may be minor errors, inaccuracies, difficulties in analytical operations, transfer of knowledge and skills to new, non-standard situations.

- The mark 'satisfactory' - one or more types of academic work provided by the curriculum are not fulfilled. The student demonstrates incomplete compliance of knowledge, skills, skills given in the tables of indicators, significant errors are made, there is a partial lack of knowledge, skills, skills for a number of indicators, the student has significant difficulties in operating knowledge and skills in their transfer to new situations. -

- The mark 'unsatisfactory' - not fulfilled types of academic work provided by the curriculum. demonstrates incomplete conformity of knowledge, skills, skills given in the tables of indicators, significant errors are made, there is a lack of knowledge, skills, skills for a large number of indicators, the student has significant difficulty in operating knowledge and skills in their transfer to new situations

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.