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**Federal State Autonomous Educational Institution of Higher Education  
Peoples Friendship University of Russia named after Patrice Lumumba"**

**Agrarian and Technological Institute**

## **STATE FINAL CERTIFICATION PROGRAM**

**Recommended by ISSC for the direction of training/specialization:**

**36.05.01 Veterinary Medicine**

**The state final attestation is carried out within the framework of the implementation of the  
main  
professional educational program of higher education (EP HE):**

**Veterinary medicine**

## 1. PURPOSE AND OBJECTIVES OF THE STATE FINAL EXAM CERTIFICATION (GIA)

**The purpose of the GIA** within the framework of the implementation of the PGI "36.05.01 Veterinary Science" is to determine the conformity of the results of the students' mastering of the PGI to the relevant requirements of the FSES and/or the RUDN PGI.

**The objectives of the state final attestation are:**

- verification of the quality of personal training in basic humanitarian knowledge, natural science laws and phenomena necessary in professional activity;
- determining the level of theoretical and practical preparedness of the graduate to perform professional tasks in accordance with the received qualification;
- establishing the degree of individual's aspiration for self-development, improvement of his/her qualifications and skills;
- to check whether the graduate has a stable motivation for professional activity in accordance with the types of professional activity tasks stipulated by the RUDN/FGOS;
- assessment of the level of graduates' ability to find organizational and managerial solutions in non-standard situations and readiness to bear responsibility for them;
- Ensuring integration of education and scientific and technical activity, increasing the efficiency of the use of scientific and technical achievements, reforming the scientific sphere and stimulating innovative activity;
- ensuring the quality of specialists' training in accordance with the requirements of RUDN/FGOS.

## 2. REQUIREMENTS TO THE LEARNING OUTCOMES OF OP WO

To the GIA is allowed to the student who has no academic debt and fully implemented the educational plan or individual educational plan of the educational program.

At the end of the mastering of the program the graduate must possess the following **generic competences (GC)**:

<b>Code and name of GC</b>	<b>Code and name of the competence achievement indicator</b>
GC-1 Ability to critically analyze problem situations on the basis of a systematic approach, to develop a strategy of action.	GC-1.1. Analyzes a task by identifying its basic components; GC-1.2. Identifies and ranks the information required to solve the task at hand; GC-1.3. searches for information to solve a given problem using various types of queries;

	<p>GC-1.4 Proposes variants of problem solving, analyzes possible consequences of their use;</p> <p>GC-1.5. Analyzes ways of solving problems of world outlook, moral and personal character on the basis of using the main philosophical ideas and categories in their historical development and socio-cultural context.</p>
GC-2 Ability to manage the project at all stages of its life cycle.	<p>GC-2.1. Formulates a problem, the solution of which is directly related to the achievement of the project goal;</p> <p>GC-2.2 Identify connections between tasks and expected results of their solution;</p> <p>GC-2.3 Identify available resources and constraints, applicable legal regulations, within the scope of assigned tasks;</p> <p>GC-2.4 Analyze the project implementation plan-schedule as a whole and choose the best way to solve the set tasks, based on current legal regulations and available resources and constraints;</p> <p>GC-2.5 Controls the progress of the project, adjusts the plan-schedule according to the results of control.</p>
GC-3 Ability to organize and lead a team, developing a team strategy to achieve the set goal.	<p>GC-3.1 Identifies his/her role in a team based on a collaborative strategy to achieve a goal;</p> <p>GC-3.2 Formulates and takes into account in his/her activity the peculiarities of behavior of groups of people singled out depending on the goal set;</p> <p>GC-3.3 Analyze the possible consequences of personal actions and plan their actions to achieve a given result;</p> <p>GC-3.4 Shares information, knowledge and experience with team members;</p> <p>GC-3.5. Argues his/her point of view regarding the use of other team members' ideas to achieve the set goal;</p> <p>GC-3.6 Participates in teamwork to complete assignments.</p>
GC-4 Ability to communicate in interpersonal and intercultural interaction in Russian as a foreign language and foreign language(s) on the basis of mastery of interrelated and interdependent types of reproductive and productive foreign language speech activities, such as listening, speaking, reading, writing and translation in everyday life, sociocultural, educational and professional, official business and scientific spheres of communication.	<p>GC-4.1 Selects a style of business communication, depending on the language of communication, purpose and conditions of partnership;</p> <p>GC-4.2 Adapts speech, communication style, and sign language to situations of interaction;</p> <p>GC-4.3 Search for necessary information to solve standard communicative tasks in Russian and foreign languages;</p> <p>GC-4.4 Translate professional texts from a foreign language into Russian and vice versa;</p> <p>GC-4.5 Conduct business correspondence in Russian and foreign languages, taking into account stylistic features of official and unofficial letters and sociocultural differences in the format of correspondence;</p> <p>GC-4.6. Uses dialog to collaborate in academic communication of communication, taking into account the personality of interlocutors, their communicative-speech strategy and tactics, the degree of formality of the situation;</p> <p>GC-4.7 Forms and argues his/her own assessment of the main ideas of dialog (discussion) participants in accordance with the needs of joint activity.</p>
GC-5 Ability to analyze and take into account the diversity of cultures in the process of intercultural interaction.	<p>GC-5.1 Interpret Russian history in the context of world historical development;</p> <p>GC-5.2 Finds and uses information about cultural characteristics and traditions of different social groups in social and professional</p>

	<p>communication;</p> <p>GC-5.3. takes into account the historical heritage and socio-cultural traditions of different social and professional communities in social and professional communication on a given topic. groups, ethnicities and faiths, including world religions, philosophical and ethical teachings;</p> <p>GC-5.4 Gather information on a given topic, taking into account the ethnicities and faiths most widely represented in the study sites;</p> <p>GC-5.5. Justifies the peculiarities of project and team activities with representatives of other ethnicities and (or) confessions;</p> <p>GC-5.6 Adheres to the principles of non-discriminatory interaction in personal and mass communication in order to fulfill professional tasks and enhance social integration.</p>
GC-6 Ability to identify and implement priorities of own activity and ways to improve it on the basis of self-assessment and lifelong learning.	<p>GC-6.1 Control the amount of time spent on specific activities;</p> <p>GC-6.2 Develops tools and methods of time management in accomplishing specific tasks, projects, and goals;</p> <p>GC-6.3 Analyzes his/her resources and their limits (personal, situational, time, etc.) to successfully complete the task at hand;</p> <p>GC-6.4 Finds and uses sources of additional information to improve general and professional knowledge;</p> <p>GC-6.5 Analyze the main opportunities and tools of continuing education in relation to own interests and needs, taking into account conditions, means, personal opportunities, stages of career development, time perspective of activity development and labor market requirements;</p> <p>GC-6.6 Identifies self-development tasks, goals and priorities for professional growth;</p> <p>GC-6.7. categorize tasks into long-, medium-, and short-term tasks</p>
GC-7 Ability to maintain an adequate level of physical fitness to ensure full social and professional activity.	<p>GC-7.1 Selects health-saving technologies to maintain a healthy lifestyle, taking into account the physiological characteristics of the body;</p> <p>GC-7.2 Plan his/her working and free time to optimize the combination of physical and mental workload and ensure efficiency;</p> <p>GC-7.3 Observes and promotes healthy lifestyle norms in various life situations and professional activities</p>
GC-8 Ability to create and maintain safe living conditions in everyday life and in professional activities to preserve the natural environment, to ensure sustainable development of society, including at the threat and occurrence of emergencies and military conflicts.	<p>GC-8.1 Analyze the factors of harmful influence on life activity of elements of the environment (technical means, technological processes, materials, buildings and structures, natural and social phenomena);</p> <p>GC-8.2 Identify hazards and harmful factors within the framework of the task at hand;</p> <p>GC-8.3 Identifies and corrects problems associated with safety violations in the workplace;</p> <p>GC-8.4 Explain emergency prevention activities;</p> <p>GC-8.5 Explain rules of behavior in natural and man-made emergencies and military conflicts;</p> <p>GC-8.6. Provides first aid, participates in restorative care events.</p>
GC-9 Ability to use basic defectological knowledge in social and professional spheres.	GC-9.1 Possesses an understanding of the principles of non-discriminatory interaction in communication in various spheres of life, taking into account the socio-psychological characteristics of persons with disabilities;

	<p>GC-9.2 Plans and implements professional activities with individuals who have disabilities or disabilities.</p> <p>GC-9.3. Interacts with persons with disabilities in social and professional spheres.</p>
GC-10 Ability to make informed economic decisions in various spheres of life.	<p>GC-10.1 Understands basic principles of economic functioning and economic development, goals of the form of government participation in the economy;</p> <p>GC-10.2 Apply personal economic and financial planning techniques to achieve current and long-term financial goals;</p> <p>GC-10.3. uses financial tools to manage personal finances (personal budget), controls own economic and financial risks.</p>
GC-11 Ability to form an intolerant attitude towards corrupt behavior.	<p>GC-11.1 Analyze current legal norms that ensure the fight against corruption in various areas of life, as well as ways to prevent corruption and form an intolerant attitude towards it;</p> <p>GC-11.2 Plan, organize and conduct activities to ensure the formation of a civic position and prevention of corruption in society;</p> <p>GC-11.3 Observe the rules of social interaction based on compliance with applicable laws and intolerant attitude towards corruption.</p>
GC-12 Ability to search for the necessary sources of information and data, to perceive, analyze, remember and transfer information using digital means, as well as with the help of algorithms when working with data obtained from various sources in order to effectively use the obtained information to solve problems; Evaluate information, its reliability, draw logical inferences based on incoming information and data.	<p>GC-12.1 Finds appropriate sources of information and data, perceives, analyzes, remembers and communicates information using digital tools and algorithms when working with data obtained from various sources in order to effectively use the information obtained to solve problems;</p> <p>GC-12.2 Evaluate information, its reliability, draw logical inferences based on incoming information and data.</p>

**- general professional competencies (GPC):**

<b>Code and name of the GPC</b>	<b>Code and name of the competence achievement indicator</b>
GPC-1 Ability to determine the biological status and normative clinical indicators of organs and body systems of animals.	<p>GPC-1.1. Knows the structure and functions of the main systems of animal organism taking into account species specifics</p> <p>GPC-1.2. Able to predict the expected violations of biological status in suspected disease development</p> <p>GPC-1.3. Can determine the main indicators of the activity of individual systems of the body and draw conclusions about the presence of deviations from the normative values.</p> <p>GPC-1.4. Possesses the skills of sampling biological fluids and tissues for research, performing laboratory research, interpretation of research results.</p>

<p>GPC-2 Ability to interpret and evaluate in professional activity the influence of natural, socio-economic, genetic and economic factors on the physiological state of the animal organism.</p>	<p>GPC-2.1. Possesses knowledge of the influence of natural, socio-economic, genetic and economic factors on animal organism.  GPC-2.2. able to establish the existence and reliability of cause-and-effect relationships between the impact of certain etiological factors on the animal's body and the development of diseases.  GPC-2.3 Possesses methods of preventive and therapeutic correction of the impact of unfavorable environmental factors that can cause deterioration of animal health status</p>
<p>GPC-3 Ability to carry out and improve professional activities in accordance with regulatory legal acts in the field of agro-industrial complex.</p>	<p>GPC-3.1 Knowledge of modern legal norms, both state and international, regulating activities in the field of veterinary medicine, veterinary and sanitary expertise and agro-industrial complexes  GPC-3.2 Possesses the skills of updating legal information, including in the sphere of agro-industrial complex.  GPC-3.3 Performs activities in accordance with regulatory and legal acts in the sphere of agro-industrial complex, as well as in the field of veterinary medicine and veterinary and sanitary expertise.</p>
<p>GPC-4 Ability to use in professional activity methods of problem solving with the use of modern equipment in the development of new technologies and use modern professional methodology to conduct experimental research and interpretation of their results.</p>	<p>GPC-4.1 Possesses the conceptual and methodological apparatus of basic natural sciences at a level sufficient for full-fledged professional activity at the modern level  GPC-4.2 Possesses methods of problem solving using modern equipment  GPC-4.3 Ready to use modern methodology in designing and conducting experimental research  GPC-4.4 Utilizes modern professional methodology in interpreting research results</p>
<p>GPC-5 Ability to draw up special documentation, analyze the results of professional activity and present reporting documents using specialized databases.</p>	<p>GPC-5.1 possesses the skills of searching for necessary forms of documentation on official websites and in specialized databases  GPC-5.2 Possesses professional terminology and skills of completing analytical and reporting documents of professional orientation  GPC-5.3 Able to use specialized software to analyze the results of professional activities and prepare reporting documentation.</p>
<p>GPC-6 Ability to analyze, identify and perform hazard assessment of the risk of disease emergence and spread.</p>	<p>GPC-6.1 Possesses knowledge in the field of etiology and pathogenesis of diseases of animals of different species.  GPC-6.2 Know the patterns of occurrence and spread of diseases in animal populations, factors predisposing to diseases and causes of possible complications.  GPC-6.3 Assess the risks of the impact of human economic activity on the spread of animal and human diseases.</p>
<p>GPC-7 Ability to understand the principles of modern information technologies and use them to solve the problems of professional activity.</p>	<p>GPC-7.1 Understands the principles of modern computer and telecommunication equipment and is able to use them to solve professional problems.  GPC-7.2 Use modern special software and specialized databases to solve professional tasks and perform job duties  GPC-7.3 Possesses skills of working on modern medical diagnostic and therapeutic equipment with the software  GPC-7.4 Use specialized databases to solve professional tasks in the field of diagnostics and treatment of animals of various species  GPC-7.5 Use geographic information systems and software packages in collecting and analyzing information related to the</p>

	assessment of the spread of contagious diseases, epizootic situations, planning and evaluating the effectiveness of anti-epizootic measures.
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**- professional competencies (PC)\*:**

<b>Code and name of the competence achievement indicator</b>		<b>Code and name of the professional standard on the basis of which the PC is formulated</b>
PC-1. Ability to collect anamnesis of life and health of the animal for further diagnosis and planning of therapeutic and preventive measures.	PC-1.1 Collects the animal's life history, information on routine vaccinations, deworming and other preventive treatments. PC-1.2 Collects information on past illnesses, surgical interventions, current chronic diseases and ongoing therapy for these diseases. PC-1.3 Collects information on changes in the animal's condition during the course of the disease, diagnostic and therapeutic measures taken, medicines and physical therapy methods used. PC-1.4	Professional Standard 141 Worker in the field of veterinary medicine  (type of professional activity - Ensuring veterinary welfare of animals and humans code 13.012) OKZ code - 2250 Veterinary doctors
PC-2. Ability to perform a complete initial clinical examination of an animal to make a preliminary clinical diagnosis(s) and repeat examinations to monitor the patient's condition.	PC-2.1 Follows technique and procedure for clinical examination, taking into account the type of animal and its condition. PC-2.2 Identifies signs (symptoms) of deviations from normal function, recognizes standard combinations of signs (syndromes). PC-2.3 Records the results of the examination in the patient's chart/other medical documents ПК-2.4 Able to assess the initial degree of clinical symptoms and their change during the course of patient management	
PC-3. Ability to plan measures for differential diagnosis of diseases in a patient.	PC-3.1 Systematizes information about a patient's symptoms/syndromes of disease, forms a set of preliminary diagnoses for their further confirmation or refutation. PC-2.2 Uses off-the-shelf or creates a unique algorithm for differential diagnosis, taking into account the capabilities of the treatment facility. PC-3.3 Utilizes information obtained as a result of diagnostic measures to make final diagnosis(s) and correct diagnoses when necessary.	
PC-4. Ability to perform necessary laboratory diagnostics as part of preventive or	PC-4.1 Knows modern methods of laboratory diagnostics, their purpose, peculiarities of pre-analytics and interpretation of results. PC-4.2 Selects the appropriate type of laboratory diagnosis for the task at hand, taking into account	

diagnostic measures.	<p>knowledge of basic biological disciplines.</p> <p>PC-4.3 Knows how to perform laboratory tests using modern diagnostic equipment.</p> <p>PC-4.4 Interprets diagnostic results and uses them to solve the problem at hand.</p>	
PC-5. Ability and readiness to plan and conduct the necessary types of instrumental diagnostics of the patient's condition	<p>PC-5.1 Possesses knowledge of modern methods of instrumental diagnostics, peculiarities of their application, indications, possible complications and contraindications to their use.</p> <p>PC-5.2 Selects the necessary and sufficient set of instrumental diagnostic methods to solve the task at hand.</p> <p>PC-5.3 Knows how to perform instrumental diagnosis of diseases in animals.</p> <p>PC-5.4 Interprets diagnostic results and uses them to solve the problem at hand.</p>	
PC-6. Ability to diagnose and give a prognosis of the course and spread of the disease on the basis of clinical, laboratory and instrumental diagnostics data, as well as additional diagnostic methods.	<p>PC-6.1 Possesses knowledge of the peculiarities of manifestation of infectious, parasitic, internal non-communicable, surgical, gynecological and other diseases of animals of various species.</p> <p>PC-6.2 Possesses the methods of making a complex diagnosis, taking into account the results of anamnesis, clinical, laboratory and instrumental studies.</p> <p>PC-6.3 Possesses methods of predicting the course and outcome of treatment of the main disease based on a set of concomitant diagnoses and factors complicating the patient's condition.</p> <p>PC-6.4 Possesses techniques for assessing the risk of spread of an identified disease.</p>	
PC-7. Ability to choose or develop a treatment plan for a patient based on the diagnosis made	<p>PC-7.1 Able to select drugs necessary for the treatment of animals, guided by the principles of evidence-based medicine, taking into account the cumulative pharmacological effect of all prescribed drugs on the body.</p> <p>PC-7.2 Able to choose the optimal method of drug administration, calculate the dose and frequency of administration, duration of the course of each drug.</p> <p>PC-7.3 Able to select non-medication, including physiotherapy, methods of influence on the body of a sick animal, contributing to its recovery and apply them to the treatment of the patient.</p> <p>PC-7.4 Able to draw up a treatment plan for a patient, select criteria for monitoring its effectiveness and options for changing the treatment plan if the selected treatment methods are not effective.</p>	
PC-8. Coordinates the treatment plan	<p>PC-8.1 Able to explain the chosen treatment plan to the pet owner, obtain their consent and willingness</p>	



<p>with the owner of the animal and other participants of the treatment process, if necessary, adjusts it in the course of treatment and coordinates changes with the owner of the animal.</p>	<p>to invest their resources in the pet's treatment.  PC-8.2 Willing to communicate with the patient's owner about changes in the patient's condition that have occurred during treatment, adherence to prescribed therapy, and consistency between prognosis and actual patient outcomes.  PC-8.3 Ready to explain to the owner and treatment staff the fact of correction of the prescribed treatment in case of changes in the patient's condition.</p>	
<p>PC-9. Ability to use methods of operative surgery in the prevention, diagnosis and treatment of animal diseases.</p>	<p>PC-9.1 Selects the appropriate method of surgical intervention, including methods of anesthesia if necessary.  PC-9.2 Plans preoperative preparation, course of surgical intervention, management of early postoperative period, prevention of complications.  PC-9.3 Able to independently perform basic preventive, diagnostic and therapeutic surgical interventions (including punctures, soft tissue necrectomy, tail amputation, castration of males and females, dehorning, diagnostic laparotomy, etc.).  PC-9.4 Monitors the outcome of the surgical intervention.</p>	
<p>PC-10. Ability to analyze and adjust animal feeding to improve the effectiveness of the treatment process, prescribe therapeutic diets.</p>	<p>PC-10.1 Able to analyze a patient's diet to identify factors predisposing to disease development.  PC-10.2 Able to justify the prescription of special feeding to an animal for therapeutic purposes in various diseases  PC-10.3 Able to recommend the approximate composition of therapeutic diets, the desirable ratio of nutrients, the presence of special additives and components that enhance the therapeutic effect of the diet  PC-10.4 Able to use special programs and databases to select industrial therapeutic diets and bioadditives, as well as to prepare individual therapeutic diets for animals of different species.</p>	
<p>PC-11. Ability to develop an annual plan of anti-epizootic measures, a plan of prevention of non-communicable animal diseases, a plan of veterinary and sanitary measures, including a plan of preventive immunizations (vaccinations) and</p>	<p>PC-11.1 Able to conduct epizootological survey of the organization, territory  PC-11.2 Able to develop an annual plan of anti-epizootic and anti-parasitic measures, a plan of prevention of non-communicable animal diseases, a plan of veterinary and sanitary measures  PC-11.3 Able to draw up individual and group plans of preventive immunizations (vaccinations) taking into account the epizootic situation in the territory where the animals stay, the plan of anti-epizootic measures, as well as state and regional veterinary and sanitary rules and requirements  PC-11.4 Able to organize therapeutic and</p>	

therapeutic and preventive treatments.	<p>prophylactic treatment of animals in accordance with the plan of anti-epizootic measures, as well as, if necessary, taking into account the real epizootic situation in places where animals stay, including in the conditions of agricultural production.</p> <p>PC-11.5 Able to analyze the completeness and effectiveness of measures to prevent animal diseases in order to improve them</p>	
PC-12. Ability to organize and conduct dispensary in animals, both general and specialized.	<p>PC-12.1 Able to draw up a plan for the dispensation of animals, general or specialized, taking into account their species and purpose</p> <p>PC-12.2 Able to organize and conduct medical check-ups according to the drawn up plan</p> <p>PC-12.3 Able, based on the results of the dispensary, to give recommendations for therapeutic and preventive measures aimed at improving the health of the group of animals</p>	
PC-13. Ability to perform postmortem diagnostic examination of animals in order to establish pathological processes, diseases, cause of death.	<p>PC-13.1 Able to perform general inspection of animal carcasses prior to autopsy</p> <p>PC-13.2 Able to perform autopsy of animal carcasses using special tools and observing safety requirements</p> <p>PC-13.3 Able to establish the cause of death and pathologoanatomical diagnosis in accordance with generally accepted criteria and classifications, lists of animal diseases</p> <p>PC-13.4 Able to formalize the results of postmortem diagnostic examination of the animal in the autopsy report</p>	
PC-14. Readiness to promote veterinary knowledge, including in the field of animal disease prevention.	<p>PC-14.1 Able to analyze the problems leading to disruption of animal health and welfare, based on this to set goals in the field of promotion of veterinary knowledge, to plan strategy and tactics of upcoming activities</p> <p>PC-14.2 Able to use computer and telecommunication tools to prepare and demonstrate materials used in the process of promoting veterinary knowledge</p> <p>PC-14.3 Able to conduct talks, lectures, seminars for employees of the organization in order to explain the principles of work on prevention of animal diseases</p>	

\* - The PC is formulated by the program developer taking into account the requirements of professional standards and the focus of the program.

### 3. COMPOSITION OF THE GIA

The GIA can be held both in person (students and the State Examination Committee are at RUDN during the GIA) and using distance education technologies (DET) available in the RUDN Electronic Information and Education Environment (EIE).

The procedure for conducting the GIA in the face-to-face format or using DOT is regulated by the relevant local normative act of RUDN.

The GIA for the professional educational program "36.05.01 Veterinary Medicine" includes:

- state examination (SE);
- defense of graduate qualification work (GQW) as an elective discipline at the initiative of the graduate.

#### **4. GE PROGRAMME**

The state examination is conducted on clinical disciplines and disciplines of specializations, the results of mastering which have a determining value for the professional activity of graduates.

The volume of the GE on the HEI is 9 credit units.

The state examination shall be conducted in two stages:

**The first stage** - assessment of the level of theoretical training of the graduate in the form of computerized testing using the tools available in the RUDN Electronic Information and Education Environment (EIEE);

**The second stage** is the assessment of the graduate's practical preparation for future professional activity in the form of answering questions and solving industrial situational tasks (cases).

In order to prepare students to pass the GE, the head of HEI (no later than one calendar month before the start of the GIA) must familiarize the final year students with this GIA program, a comprehensive list of theoretical issues included in the GE, examples of production situational tasks (cases) that will need to be solved in the process of passing the certification test, as well as with the procedure for each stage of the GE and the methodology for evaluating its results (with evaluation materials).

Before the GE is held mandatory counseling of students on issues and tasks included in the program GE (pre-examination consultation).

Procedure for **computerized testing** as part of the GIA next:

- 1) Preparation for computer-based testing takes place during the study of clinical disciplines and disciplines of specialization. Computerized testing questions can be included in the training and final tests of clinical disciplines.

2) Trial computerized testing is conducted at least one week before the state computerized testing. In the process of pilot testing students overcome technical difficulties of the testing process, determine the approximate level of their preparation and receive answers to arising questions from the teacher responsible for testing and the proctor (in case of remote form of testing). Technically, the procedure of computer-based pilot testing fully repeats the procedure of state computer-based testing.

3) The computer-based testing is conducted in a computer class or in the DOT format using the RUDN Electronic Information and Educational Environment (EIEE). The test part of the interdisciplinary examination includes 100 questions. The questions are formulated in such a way that only one correct answer can be given. Multiple answers are not supposed in the state testing questions. Each correct answer can give 1 point. Thus, a student can get up to 100 points. The duration of computerized testing is not more than 60 minutes. The student has 1 attempt.

4) The test results are evaluated automatically by means of the RUDN Electronic Information and Educational Environment (EIEE). To be admitted to the oral part of the state examination a student must score at least 51 points.

5) A student who scores less than 51 points for the state test or who fails to appear for the state computerized test without a valid reason is considered not certified and is not allowed to participate in the next stages of the GIA.

6) If a student is absent from the state computerized testing for a valid reason, the student is assigned a date for additional testing within the GIA timeline.

The modalities for the **second phase of the GE** are as follows:

1) Students who have scored at least 51 points in the state computerized test are admitted to the oral part of the state examination. Further testing score is not taken into account, except for disputable cases when assigning the final grade for the oral answer. By the decision of the GEC, a high score for the computerized testing may serve as a basis for a higher final grade.

2) At the command of the GEC secretary, students enter the GIA room one by one.

3) The student chooses an examination ticket and prepares for the answer. The maximum preparation time for the oral answer is 40 minutes. A draft with notes made during the preparation process may be used by the student in the process of answering the GEC members. The draft is then handed in to the GEC secretary and may be used in case of appeal. At the end of the GIA, the drafts are destroyed.

4) Answering the questions of the oral part of the state examination and during the analysis of the situational task (case) the student must demonstrate

the universal, general professional and professional competencies acquired in the course of study.

5) The GEC members may ask additional questions that contribute to a more vivid disclosure of the degree of competence of the responding student.

6) In the course of answering the questions of the state examination and the presentation of the student's solution to the situational problem assesses the completeness and correctness of the answer, literacy of presentation, breadth of professional outlook, depth and relevance of knowledge of clinical disciplines and disciplines of specialization.

7) The final grade for answering the questions and solving the problems of the State Interdisciplinary Examination is based on the number of points gained by the student during the oral answer.

Evaluation of the results of passing the SE is carried out in accordance with the methodology set out in the evaluation materials presented in the Appendix to this GIA program.

## **5. REQUIREMENTS FOR THE THESIS AND THE PROCEDURE OF ITS DEFENSE**

GQW is a work performed by the student (several students together), demonstrating the level of preparedness of the graduate for independent professional activity.

**The defense of the work is not a compulsory component of the GIA of the OPE "36.05.01 Veterinary Medicine" and is conducted on the student's initiative on a voluntary basis as an elective after the state examinations.**

The list of topics of graduate qualification works, proposed by students to perform, approved by the order of the head of the PME, implementing the educational program, and is brought by the head of the program to the students of the final year no later than 6 months before the date of the start of the GIA.

It is allowed to prepare and defend the GQW on the topic proposed by the student (students), in the prescribed manner.

The student who passed the GE is admitted to the defense of the work is allowed.

Only a fully completed GQW, signed by the graduate(s) who completed it, the supervisor, consultant (if any), the head of the graduating BTU and ESC, passed the

procedure of external review (for Master's degree and specialization is mandatory) and check for the volume of borrowings (in the system "Anti-Plagiarism") is allowed for defense. To the GQW, admitted to the defense, it is obligatory to attach the feedback of the supervisor on the work of the graduate in the preparation of the WRC.

In order to identify and timely eliminate deficiencies in the structure, content and design of GQW, no later than 14 days before the date of its defense, a rehearsal of the defense of students of their work (pre-defense) in the presence of the head of WRC and other teachers graduating BTU.

The defense of GQW is held at an open meeting of the State Examination Commission (SEC) in full-time or remote form.

Attestation test is held in the form of an oral report of students with a mandatory multimedia (graphic) presentation reflecting the main content of the work.

Upon completion of the report, the defending students give oral answers to the questions raised by the GEC members on the subject matter, structure, content or design of GQW and the profile of the HEI. The report and/or answers to the questions of the GEC members may be in a foreign language.

The stages of GQW fulfillment, requirements to the structure, scope, content and design, as well as the list of mandatory and recommended documents to be submitted for defense are specified in the relevant methodological guidelines.

Evaluation of the results of the defense of the work is carried out in accordance with the methodology set out in the evaluation materials presented in the Appendix to this GIA program.

## **6. MATERIAL AND TECHNICAL SUPPORT FOR CONDUCTING GIA**

A computer class for test and state testing with appropriate computer equipment, access to the RUDN Electronic Information and Education Environment (EIEE) and Internet access. Auditorium for the state examination and defense of the thesis, equipped with multimedia equipment and Internet access. Laptops for the GEC secretary and (if necessary) GEC members to enable remote participation in the GEC work. Licensed corporate software Microsoft Office 365, if necessary - specialized software for reading X-rays and other special software.

## **7. EDUCATIONAL, METHODOLOGICAL AND INFORMATION SUPPORT GIA**

*The main literature for preparation for the GE and/or fulfillment and defense of GQW:*

1. Obstetrics, gynecology and biotechnology of animal reproduction: textbook / A. P. Studentsov, V. S. Shipilov, V. Y. Nikitin [et al.] ; edited by G. P. Dulger. - 10th ed., er. - St. Petersburg: Lan, 2020. - 548 c. <https://e.lanbook.com/book/129090>
2. Badluev E.B., Eshizhamsoev B.D., Tsybikzhapov A.D. Obstetrics and gynecology of farm animals. Workbook for laboratory-practical classes and independent work: textbook 2019.-90 pp. <https://e.lanbook.com/book/113386>
3. Baimishev, H. B. Gynecology and andrology: methodological guidelines / H. B. Baimishev. - Samara : SamGAU, 2018. - 106 c. <https://e.lanbook.com/book/109422>
4. Practicum on internal diseases of animals: textbook / G. G. Shcherbakov, A. V. Yashin, A. P. Kurdeko [et al.] ; under the general editorship of G. G. Shcherbakov [et al.]. - 3rd ed. - Saint-Petersburg : Lan, 2020. - 544 c. <https://e.lanbook.com/book/139263>
5. Nechaev, A. V. Internal non-communicable diseases: textbook / A. V. Nechaev, Y. A. Kurlykova. - Samara : SamGAU, 2020 - Part 1 : General prevention and therapy - 2020. - 122 c. <https://e.lanbook.com/book/158657>
6. Dulger, G. P. Fundamentals of veterinary medicine : textbook for universities / G. P. Dulger, G. P. Tabakov. - 3rd ed., er. - St. Petersburg : Lan, 2020. - 476 c. <https://e.lanbook.com/book/146658>
7. Epizootology with microbiology : textbook / A.S. Aliev, Y.Y. Danko, I.D. Yeshenko [et al]; Edited by V.A. Kuzmin. - 2nd ed. - SPb. : Lan Publishing House, 2017. - 432 c. [http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn\\_FindDoc&id=465028&idb=0](http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn_FindDoc&id=465028&idb=0)
8. Sidorchuk, A. A. General epizootology : textbook for universities / A. A. Sidorchuk, V. A. Kuzmin, S. V. Alekseeva. - 2nd ed., er. - Saint-Petersburg : Lan, 2021. - 248 c. <https://e.lanbook.com/book/156931>
9. Epizootology with microbiology : textbook for universities / A. S. Aliev, Y. Y. Danko, I. D. Yeshenko [et al.] ; Edited by V. A. Kuzmin, A. V. Svyatkovsky. - 6th, er. - Saint-Petersburg : Lan, 2021. - 432 c. <https://e.lanbook.com/book/162384>
10. Skubko, O. R. Morphofunctional features and diseases of animal bones : textbook / O. R. Skubko, O. N. Shushakova. - Omsk : Omsk GAU, 2020. - 52 c. <https://e.lanbook.com/book/136157>
11. Operative surgery in animals : a textbook for universities / B. S. Semenov, V. N. Videnin, A. Y. Nechaev [et al.]. - Saint-Petersburg : Lan, 2020. - 704 c. <https://e.lanbook.com/book/162365>
12. Skubko, O. R. Methods of lectures of the academic discipline B1.B.23 "Operative surgery with topographical anatomy" : textbook / O. R. Skubko, G. A. Khonin, O. N. Shushakova. - Omsk : Omsk GAU, 2019. - 65 c. <https://e.lanbook.com/book/126630>

13. Latypov D.G. Protozoal diseases of animals dangerous for humans (protozoal zoonoses) : a manual / D.G. Latypov, R.R. Timerbaeva, E.G. Kirillov. - SPb. : Publishers "Lan", 2017. - 208 c. [http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn\\_FindDoc&id=464930&idb=0](http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn_FindDoc&id=464930&idb=0)
14. Latypov D.G. Helminthoses of animals dangerous for humans : textbook / D.G. Latypov. - 3rd ed., revision. - SPb. : Publishers "Lan", 2017. - 440 c. [http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn\\_FindDoc&id=464941&idb=0](http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn_FindDoc&id=464941&idb=0)
15. Latypov, D. G. Parasitology and invasive diseases of animals : textbook for spo / D. G. Latypov, R. R. Timerbaeva, E. G. Kirillov. - 2nd ed., pers. - Saint-Petersburg : Lan, 2021. - 520 c. <https://e.lanbook.com/book/159517>
16. Yatusevich, A. I. Parasitology and invasive diseases of animals : textbook / A. I. Yatusevich, N. F. Karasev, S. I. Stasyukevich. - Minsk : RIPO, 2020. - 266 c. <https://e.lanbook.com/book/154220>
17. Nikitin, I. N. Practicum on the organization of veterinary business : textbook / I. N. Nikitin. - 4th ed., revised. and supplement. - St. Petersburg : Lan, 2020. - 324 c. <https://e.lanbook.com/book/131031>
18. Nikitin, I. N. Legal support of veterinary activity : textbook for spo / I. N. Nikitin. - 2nd ed., ster. - St. Petersburg : Lan, 2021. - 212 c. <https://e.lanbook.com/book/155692>
19. Zabolotnykh M. V., Ivkova I. A., Zhidik I. Yu. Fundamentals of the organization of veterinary sanitary business: a training manual 2020.-91c
20. Nikitin, I. N. Veterinary clinic : textbook for universities / I. N. Nikitin, V. V. Ivanov, E. N. Trofimova. - 2nd, er. - St. Petersburg : Lan, 2021. - 184 c. <https://e.lanbook.com/book/162385>

*Additional literature for preparation for GE and/or performance and defense*

*WCR:*

1. Polyantsev, N. I. Practicum on obstetrics, gynecology and biotechnology of animal reproduction : textbook / N. I. Polyantsev. - Saint-Petersburg : Lan, 2016. - 272 c. <https://e.lanbook.com/book/71726>
2. Medicines used in veterinary obstetrics, gynecology, andrology and biotechnics of animal reproduction : textbook / G. P. Dyulger, V. V. Khramtsov, Y. G. Sibileva, J. O. Kemeshev. - Saint-Petersburg : Lan, 2016. - 272 c. <https://e.lanbook.com/book/75510>
3. Biotechniques of reproduction of farm animals and birds : textbook / compilers E. I. Shurmanova [et al.]. - Ekaterinburg : UrGAU, 2020. - 212 c. <https://e.lanbook.com/book/155046>
4. Kiseleva, E. V. Obstetrics and biotechniques of animal reproduction : textbook / E. V. Kiseleva. - Ryazan : RSATU, 2019. - 79 c. <https://e.lanbook.com/book/137436>



5. Fundamentals of veterinary medicine and biotechniques of animal reproduction, Non-contagious diseases of animals : textbook / E. M. Marin, V. A. Ermolaev, P. M. Lyashenko, A. V. Sapozhnikov. - Ulyanovsk : P. A. Stolypin UIGAU, 2015. - 352 c. <https://e.lanbook.com/book/133785>
6. Gertman, A. M. Diseases of kidneys and urinary organs of animals : textbook / A. M. Gertman, T. S. Samsonova. - 2nd edition, revised. - St. Petersburg : Lan, 2016. - 388 c. <https://e.lanbook.com/book/79324>
7. Expertise of fish of northern species. Quality and safety : a textbook for universities / A. A. Gnedov, O. A. Ryazanova, E. B. Tabala, V. M. Poznyakovsky ; under the general editorship of V. M. Poznyakovsky. - 2nd ed. - Saint-Petersburg : Lan, 2021. - 436 c. <https://e.lanbook.com/book/155667>
8. Internal non-communicable diseases : textbook : in 2 parts / compiled by T. N. Babkina, N. V. Lenkova. - Persianovsky : Donskoy GAU, 2020 - Part 2 : Internal non-communicable diseases - 2020. - 155 c. <https://e.lanbook.com/book/148534>
9. Prevention of infectious diseases of animals by aerosols of chemical and biological preparations : a monograph / A.T. Kushnir, I.A. Bureev, Y.O. Selyaninov [et al.]. - SPb. : Publishers "Lan", 2016. - 192 c. [http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn\\_FindDoc&id=465095&idb=0](http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn_FindDoc&id=465095&idb=0)
10. Infectious diseases common to many species of animals : teaching manual / V. K. Tikhonov, G. P. Tikhonova, O. Y. Petrova, N. G. Ivanov. - Cheboksary : Cheboksary State Agricultural Academy, 2018. - 557 c. <https://e.lanbook.com/book/141997>
11. Zubareva, I. M. Aspects of general epizootology of invasive diseases : textbook / I. M. Zubareva, V. I. Vasilevich, A. S. Donchenko. - Novosibirsk : NSAU, 2016. - 275 c. <https://e.lanbook.com/book/90996>
12. Ataev, A. M. Ichthyopathology : textbook / A. M. Ataev, M. M. Zubairova. - St. Petersburg : Lan, 2020. - 348 c. <https://e.lanbook.com/book/146911>
13. Fundamentals of veterinary medicine and biotechniques of animal reproduction, Non-contagious diseases of animals : textbook / E. M. Marin, V. A. Ermolaev, P. M. Lyashenko, A. V. Sapozhnikov. - Ulyanovsk : P. A. Stolypin UIGAU, 2015. - 352 c. <https://e.lanbook.com/book/133785>
14. Medvedeva, L. V. Fundamentals of veterinary operative surgery : textbook / L. V. Medvedeva, N. A. Malygina. - Barnaul : AGAU, 2018. - 157 c. <https://e.lanbook.com/book/137643>
15. Avdeenko, V. S. Veterinary andrology : textbook / V. S. Avdeenko, S. V. Fedotov. - St. Petersburg : Lan, 2019. - 308 c. <https://e.lanbook.com/book/115500>

16. Turitsyna, E. G. Animal anatomy. Visceral systems of the body: splanchnology : textbook / E. G. Turitsyna. - Krasnoyarsk : KrasSAU, 2018. - 183 c. <https://e.lanbook.com/book/130131>
17. Parasitology and invasive diseases of animals : textbook for universities : in 2 volumes / D. G. Latypov, A. H. Volkov, R. R. Timerbaeva, E. G. Kirillov. - Saint-Petersburg : Lan, [b. g.]. - Vol. 1 - 2021. - 548 c. <https://e.lanbook.com/book/159484>
18. Parasitology and invasive diseases of animals : textbook for universities : in 2 volumes / D. G. Latypov, A. H. Volkov, R. R. Timerbaeva, E. G. Kirillov. - St. Petersburg : Lan, 2021 - Volume 2 - 2021. - 444 c. <https://e.lanbook.com/book/162360>
19. Lutfullin, M. H. Veterinary helminthology : textbook / M. H. Lutfullin, D. G. Latypov, M. D. Kornishina. - 2nd ed. - St. Petersburg : Lan, 2018. - 304 c. <https://e.lanbook.com/book/102228>
20. Klimova, E. S. Cestodology: laboratory practice : textbook / E. S. Klimova, T. V. Babintseva. - Izhevsk : Izhevsk State Agricultural Academy, 2019. - 74 c. <https://e.lanbook.com/book/158573>
21. Kudacheva, N. A. Organization of veterinary business : textbook / N. A. Kudacheva. - Samara : SamGAU, 2019. - 131 c. <https://e.lanbook.com/book/123535>
22. History of veterinary medicine : textbook / compiler N. A. Minenkov. - Kursk : Kursk State Veterinary Academy, 2020. - 101 c. <https://e.lanbook.com/book/134832>
23. Organization of veterinary business : textbook. - Stavropol : Stavropol State University, 2019. - 300 c. <https://e.lanbook.com/book/142440>
24. Nikitin I.N. Organization and economics of veterinary business : textbook / I.N. Nikitin. - 6th ed., revision and supplement. - St. Petersburg. : Publishers "Lan", 2014. - 368 c. [http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn\\_FindDoc&id=465183&idb=0](http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn_FindDoc&id=465183&idb=0)

*Resources of the information and telecommunication network "Internet":*

1. RUDN EBS and third-party EBS to which the university students have access on the basis of concluded contracts:
  - PFUR Electronic Library System - PFUR EBS <http://lib.rudn.ru/MegaPro/Web>
  - EBS "University Library Online" <http://www.biblioclub.ru>
  - EBS Yurait <http://www.biblio-online.ru>
  - EBS "Student Consultant" [www.studentlibrary.ru](http://www.studentlibrary.ru)
  - EBS "Lan" <http://e.lanbook.com/>

- Trinity Bridge EBS

2. databases and search engines:

- electronic fund of legal and normative-technical documentation  
<http://docs.cntd.ru/>

- Yandex search engine <https://www.yandex.ru/>

- Google search engine <https://www.google.ru/>

Electronic version of the document

- SCOPUS abstract database <http://www.elsevierscience.ru/products/scopus/>

*Educational and methodical materials for independent work of students in preparation for passing the GE and/or performing the MCD and preparing the work for defense \*:*

1. Methodological guidelines for the execution and design of the work on the educational program "36.05.01 Veterinary Medicine".

2. The procedure for checking the volume of borrowings in the "Anti-Plagiarism" system.

3. The procedure for conducting the GIA for the VET program "36.05.01 Veterinary Medicine" with the use of DOTs, including the procedure for identification of the graduate's identity.

\* - all educational and methodical materials for independent work of students are placed in accordance with the current order on the GIA page in TUIS!

## **8. EVALUATION MATERIALS AND SCORING AND RATING SYSTEM SYSTEM OF ASSESSMENT OF THE LEVEL OF FORMATION COMPETENCIES OF GRADUATES**

Evaluation materials and point-rating system\* for assessing the level of competencies formed following the results of mastering the discipline of OP BO "36.05.01 Veterinary Medicine" are presented in the Appendix to this GIA program.

\* - OM and BRS are formed on the basis of the requirements of the relevant RUDN local normative act (regulations/rules).

### **HEAD OF THE GRADUATING DEPARTMENT:**

Department of Veterinary Medicine

Name of DEPARTMENT

Caption

Vatnikov Y.A.

Last Name First Name.

### **HEAD OF HIGHER EDUCATION PROGRAMME:**

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Professor in the Department of Veterinary Medicine

Position

Caption

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Vatnikov Y.A.

Last Name First Name.