# Ministry of Health of the Kyrgyz Republic Ministry of Education and Science of the Kyrgyz Republic I.K. Akhunbaev Kyrgyz State Medical Academy

# BASIC EDUCATIONAL PROGRAM OF HIGHER PROFESSIONAL EDUCATION Direction of training (specialty) 560003 Preventive Medicine

Qualification (degree) of the graduate - Specialist (Doctor)
Full-time form of education
The normative term for the development of the program is 5 years
The complexity of the educational program - 300 credits (credit units)

#### 1. GENERAL PROVISIONS

State final attestation (hereinafter SFA) is intended to determine the practical and theoretical readiness of a graduate to perform professional tasks established by the state educational standard of higher professional education (hereinafter SES HPE), and to continue education in internship, residency or postgraduate studies in various fields of medicine. SFA of the graduate, fully correspond to the basic educational program of higher professional education (hereinafter MEP HPE) in the specialty 560003 "Preventive medicine" (PM), which the graduate mastered during his studies.

- 1.1. The program of the state final certification (hereinafter referred to as SFA) in the specialty 560003 "Medical and preventive work" was developed in accordance with:
- The Law of the Kyrgyz Republic (hereinafter KR) "On Education" dated April 30, 2003 No. 92;
- Regulations on the educational organization of higher professional education of the Kyrgyz Republic, approved by the decree

The Government of the Kyrgyz Republic of February 3, 2004 No. 53;

- Regulations on the SFA of graduates of universities of the Kyrgyz Republic, approved by the Resolution of the Government of the Kyrgyz Republic of December 29, 2012, No. 346;
- State educational standards of higher professional medical education (hereinafter SES HPE) 560003 "PM", approved by order No. 1179 of the Ministry of Education and Science (hereinafter MES) of the Kyrgyz Republic from 09/15/2015;
- Charter of the Kyrgyz State Medical Academy. I.K. Akhunbayev (hereinafter KSMA), approved by the order of the Ministry of Health (hereinafter the Ministry of Health) of the Kyrgyz Republic dated September 4, 2013, No. 581 and

registered with the Ministry of Justice of the Kyrgyz Republic 11/15/2013 GPYU No. 0008829;

- Regulations on SFA for graduates of KSMA approved by order No. 137 of May 24, 2018
- 1.2. The goal of the SFA is to determine the compliance of the results of mastering the basic educational program (hereinafter MEP) by the students in the specialty 560003 "Preventive medicine" with the corresponding requirements of GOS VPO 560003 "Preventive medicine" with the subsequent issuance of a state diploma of higher professional medical education established by the Ministry of Education and Science CD with its successful completion.

The goal of the GIA is to establish the correspondence of the level of formation of knowledge, abilities and skills achieved as a result of mastering the educational professional program with the requirements of the State Educational Standard of Higher Professional Education in the specialty 560003 "Preventive medicine" for the performance of professional tasks by type of professional activity: hygienic and anti-epidemiological diagnostics; in carrying out sanitary supervision in various areas of hygiene; in anti-epidemic measures; medical; psychological and pedagogical, hygienic education of the population; research; organizational and managerial.

1.3. The tasks of the SFA: checking the level of formation of the competencies defined by the State Educational Institution of Higher Professional Education, making a decision on awarding qualifications based on the results of the SFA and issuing a state diploma of higher professional medical education and developing recommendations for improving the training of graduates.

#### 2. COMPOSITION OF THE STATE CERTIFICATION COMMISSION

To conduct the GIA of graduates in the specialty 560003 "Preventive medicine" and conduct appeals on its results in the KSMA, the State Attestation Commission

(hereinafter referred to as SAC) is created, which is approved by the Ministry of Education and Science of the Kyrgyz Republic.

2.1. The SAC includes the chairman and members of the commission. A person who does not work in the KSMA, from among the leading specialists (professors, doctors of science) corresponding to the profile of the specialty, and in their absence - candidates of science or major specialists of organizations, institutions that are consumers of personnel of this profile. SAC is formed from the number of the teaching staff of the KSMA, as well as persons invited from healthcare organizations.

The members of the SAC may be: the head and employees of the graduating departments with an academic degree; chief specialists of the Ministry of Health of the Kyrgyz Republic.

STATE CERTIFICATION COMMISSION operates for two calendar years.

#### 2.2. The main functions of the state attestation commission are:

- control over the preparation of examination, test and practical questions, which are approved by the EMD and GUMK KSMA.
- a comprehensive assessment of the level of training of a graduate and the compliance of his training with the requirements of the state educational standard of higher education and qualification characteristics in the specialty 560001 "General Medicine";
- making a decision on the awarding of qualifications based on the results of the SFA and the issuance of an appropriate diploma of higher education to the graduate;
- development of recommendations for improving the quality of professional training of specialists based on the analysis of the results of certification of graduates.

- 2.3. For the period of the SFA, to ensure the work of the state attestation commission, the rector appoints the secretary of the said commission from among the persons belonging to the teaching staff of the organization, scientific workers or administrative employees of the organization. The secretary of the SAC keeps minutes of its meetings, submits the necessary materials to the appeal commission.
- 2.4. The composition of the appeal commission is formed from the number of persons belonging to the teaching staff of the KSMA and not included in the state certification commissions.

A graduate can submit an appeal to the chairman of the SJSC on the day of passing the certification test if:

- incorrect posing of questions, their going beyond the scope of the program, errors in oral answers to the ticket and test questions;
- violation of the State Attestation Commission of the established procedure for the State Attestation;
- circumstances that hinder an objective assessment of the work of the STATE CERTIFICATION COMMISSION.

Dissatisfaction with the level of the grade received by the graduate cannot be the basis for an appeal.

The Appeal Commission, at the discretion of the chairman or deputy, conducts a meeting of the members of the SJSC KSMA in the presence of a graduate. If a graduate fail to appear without a documented good reason, the application is rejected.

Additional questioning of the graduate on the materials of the work and the passed exam is not provided. As a result of the appeal, the score can be changed (increased or decreased) by a commission and is drawn up by a protocol, which is signed by the chairman and members of the SAC.

# 3.0 PROCEDURE FOR CONDUCTING THE STATE FINAL CERTIFICATION

The procedure for conducting state attestation tests is developed by the graduating departments on the basis of the above regulatory documents (clause 1.1.) And is communicated to students no later than six months before the start of the SFA.

The state exam is conducted according to the program approved by the Rector of the university, which contains a list of questions to be submitted for the state exam and recommendations for students on preparing for the state exam, including a list of recommended literature for preparing for the state exam.

The SFA program, including state examination programs, criteria for assessing the results of passing state exams, approved by the Rector of the university, as well as the procedure for filing and considering appeals, are communicated to students no later than six months before the start of the SFA.

Before the state exam, students are consulted on the issues included in the state exam program.

The final state tests, which are part of the SFA, are admitted to persons who have successfully completed the development of the main educational program in their specialty in full.

Exam, test and practical questions are provided at the EMD 30 days before the start of the SFA.

The schedule of state exams is approved by the rector and communicated to students no later than a month before the start of state certification.

After students complete theoretical training in the main educational program, the dean's office prepares the following documents:

- order on graduates admitted to state exams no later than two weeks before the exams;
- grade book of each student (presented to the executive secretary of the SAC);

All the results of state certification tests are announced on the day of the test.

Students who have not passed the State Medical Academy due to failure to appear for the state certification test for no good reason or in connection with receiving an "unsatisfactory" grade are expelled from the KSMA with the issuance of an academic certificate.

Repeated passing of the SFA is allowed no earlier than three months and no more than five years after passing the final state certification for the first time.

A graduate who has not passed the SFA for a good reason (for medical reasons or in other exceptional cases, documented) is given the opportunity to pass the final certification tests without being expelled from the university.

All decisions of the STATE CERTIFICATION COMMISSION are documented in protocols. The minutes of the meetings of the commissions are signed by the chairman and members of the SAC. The minutes of the SFA meeting are also signed by the secretary of the state attestation commission. The minutes of the meetings of the commissions are kept in the archives of the Institute.

Subject to the successful completion of all the established types of final certification tests included in the SIA, the graduate is assigned an appropriate professional qualification and a state diploma of higher professional medical education is issued. The report on the work of the SFA is annually reported to the academic council of the university.

In connection with the implementation of the concept of continuous higher, postgraduate and additional professional education, the SFA should take into account that a graduate is a specialist who has high-quality fundamental training, but at the same time has only the initial experience of its application in practice.

Therefore, the criterion for the quality of higher medical education is to determine the graduate's ability to apply the basic concepts, provisions of all disciplines of the curriculum as a methodological, theoretical and technological means of substantiating and performing targeted types of cognitive and professional activities at the stages of his further study and work.

# 4.0 PROFESSIONAL PREPAREDNESS OF UNIVERSITY GRADUATES BY SPECIALTY

#### 560003 "MEDICAL-PREVENTIVE BUSINESS"

4.1. State certification determines how a student shows his ability and readiness, relying on the knowledge gained, skills and formed general scientific, instrumental, socio-personal and general cultural and professional competencies, independently solve the tasks of his professional activity at the modern level, state special information, scientifically argue and defend your point of view.

#### 4.2. The area of professional activity of graduates.

The area of professional activity of specialists is aimed at the prevention of infectious and non-infectious diseases through the implementation of supervision in the field of consumer protection to ensure the sanitary and epidemiological well-being of the population, as well as the provision of medical and diagnostic, medico-social and other types of assistance that contribute to the preservation and improvement of the health of the population.

# 4.3. Objects of professional activity of graduates:

The object of professional activity of specialists is the health of the population and the human environment, as well as the fields of science and technology in health care, which include a set of technologies, means, methods aimed at ensuring the sanitary and epidemiological well-being of the population, maintaining and improving its health, as well as monitoring the sphere of consumer protection.

- 4.4. A specialist in the direction of training 560003 "Medical and preventive work" prepares for the following types of professional activities:
- hygienic and epidemiological diagnostics;
- carrying out sanitary supervision in various areas of hygiene;
- carrying out anti-epidemic measures;
- medical;
- psychological and pedagogical activity, hygienic education of the population;
- organizational and managerial;
- research;

Specific types of professional activities, for which a specialist is mainly prepared, are determined by the university together with the students, scientific and pedagogical workers of the university and associations of employers.

4.5. Tasks of the professional activity of graduates in the specialty 560003 "Medical and preventive work"

A specialist in the specialty 560003 "Preventive medicine" must solve the following professional tasks in accordance with the types of professional activity:

#### 4.5.1. Preventive activities:

• Carrying out measures to prevent diseases of the population through preventive and current sanitary supervision in environmental objects;

• organization of sanitary and anti-epidemic (preventive) measures aimed at preventing the occurrence of infectious and

non-communicable diseases;

- assessment of the state of the human environment, as well as other factors that determine the state of health of the population;
- assessment of the health status of the population;
- organizing, conducting and monitoring the implementation of measures for the prevention of occupational diseases;
- carrying out sanitary and educational work among the population and medical personnel in order to form a healthy lifestyle.
- 4.5.2. Hygienic and epidemiological diagnostics:
- diagnostics of the state of health of the population and the human environment;
- possession of the algorithm for setting a clinical, hygienic and epidemiological diagnosis.
- 4.5.3. Conducting sanitary supervision in various areas of hygiene:
- carrying out state supervision in the field of occupational health, communal hygiene; food hygiene, hygiene of children and adolescents; radiation hygiene; military hygiene;
- 4.5.4. Anti-epidemic measures:
- analysis of indicators of infectious and non-infectious morbidity of the population in connection with the state of environmental factors;

- planning and carrying out preventive anti-epidemic measures in the foci of infectious diseases and on the territory of natural focal infections;
- planning and carrying out preventive anti-epidemic measures to prevent infections, pandemic spread within the framework of government programs.

### 4.5.5. Medical activity:

- provision of first aid in case of emergency conditions at the pre-hospital stage;
- medical assistance to the population in extreme conditions, in the centers of mass destruction and epidemics.
- 4.5.6. Psychological and pedagogical activity, hygienic education of the population:
- hygienic education and training of the population;
- formation of positive motivation among the population aimed at maintaining and improving the level of health;
- formation of motivation among the population to introduce elements of a healthy lifestyle, including the elimination of bad habits that adversely affect health;
- educating the population on the basic hygienic measures of a health-improving nature, contributing to the prevention of the onset of the disease and health promotion.

# 4.5.7. Organizational and managerial:

• organization and management of a subdivision of bodies performing the functions of control, supervision in the field of ensuring the sanitary and epidemiological well-being of the population, protecting the rights of consumers and the consumer market of institutions carrying out their activities in order to

ensure state sanitary and epidemiological supervision of the Kyrgyz Republic, other healthcare institutions;

- organization of personnel work in medical and prophylactic and other institutions, definition of functional responsibilities and the optimal algorithm for their implementation;
- business correspondence;
- organization of work with medicines, compliance with the rules of their circulation and storage.

#### 4.5.8. Research activities:

- carrying out scientific and practical research;
- analysis of scientific literature, official statistics and their processing;
- writing abstracts on modern scientific problems;
- participation in the solution of individual research tasks for the development of new methods and technologies in the field of medicine.
- 4.6. Competencies in the specialty 560003 "Preventive medicine", checked at the State Automobile Inspection:

#### Universal:

General scientific competence (GC)

- is able to analyze socially significant problems and processes, to use in practice the methods of the humanities, natural sciences, biomedical and clinical sciences in various types of professional and social activities;

- capable of analyzing worldview, socially and personally significant philosophical problems and categories;
- is capable of analyzing significant political events and trends, for responsible participation in political life, for mastering the basic concepts and laws of the world historical process, for a respectful and careful attitude towards the historical heritage and traditions, for assessing state policy, possessing the value of historical and medical terminology;
- is able to analyze economic problems and social processes, use the methodology for calculating indicators of economic efficiency in the health care system;
- is capable of logical and reasoned analysis, for public speech, conducting discussion and polemics, for editing texts of professional content for the implementation of educational and pedagogical activities;
- able and ready to learn one of the foreign languages at the level of everyday communication, for written and oral communication in the state and official languages;
- is able and ready to use management methods, organize the work of performers, find and make responsible management decisions in the context of different opinions and within the framework of their professional competence, comply with the rules of medical ethics, laws and regulations on working with confidential information, keep medical secrets, master the basics office work.

## Instrumental Competencies (IC)

- ability and readiness to determine environmental parameters using hygienic tools and devices (IC-1);
- the ability and readiness to work with medical devices and equipment (IC-2). Socio-personal and general cultural

- the ability to adapt to social and professional changes, to show independence and exercise self-control in professional activities, to be committed to professional ethical standards:
- is able to demonstrate discipline, responsibility, reliability, humanity, tolerance, general culture, lead a healthy lifestyle. Strives for continuous professional development, self-knowledge, self-development, self-actualization, be able to manage their time, plan and organize their activities, be able to build a strategy for personal and professional development and training;
- show self-confidence, be emotionally stable, the ability to criticize and self-criticism, be tolerant of other opinions and positions. Possess the skills of interpersonal relations (the ability to act together, friendly relations with others, etc.), strives for constructive behavior in conflict situations. Comply with legal and ethical norms, rights and obligations of a citizen;
- possess multimedia technologies, be critical of the information distributed by the media, be able to independently collect, save, analyze, transform, acquire new knowledge by analyzing and synthesizing various information, etc. fluent in personal computer software and office equipment.

#### **Professional:**

#### Preventive activities

- the ability and readiness to study and assess the factors of the human environment and the body's response to their effects and health conditions, to interpret the results of hygienic research and to implement sanitary-hygienic and anti-epidemiological measures to prevent infectious and non-infectious diseases (PA-1);
- the ability and readiness to conduct sanitary and epidemiological supervision of labor and production processes, technological equipment, the appearance in the production of chemical, physical, biological and other factors affecting the health

of workers, as well as predicting their danger and determining recommendations for planning, design, recognition and interpretation of harmful factors (PA-2);

- the ability and readiness to conduct sanitary and epidemiological surveillance over the state of the human environment in the settlement, objects of economic drinking water supply, housing and communal services, medical preventive organizations (PA-3);
- the ability and readiness to conduct sanitary and epidemiological supervision over the production and sale of food products, their quality and safety, to assess the actual nutrition of the population, to participate in the development of comprehensive programs to optimize and correct the nutrition of various population groups, including in order to overcome the shortage micronutrients, as well as for public and hospital catering (PA-4);
- the ability and readiness to assess the physical development of children and adolescents as an indicator of health and conduct sanitary and epidemiological surveillance over the conditions of stay, education and the state of children's educational institutions (PA-5);
- the ability and readiness to conduct sanitary and epidemiological supervision over the hygienic provision of troops and the living environment of military personnel (PA-6);
- the ability and readiness to conduct sanitary and epidemiological examinations, investigations, examinations, studies, tests, toxicological, hygienic and other types of assessments, project documentation of supervised objects, products, services, works in order to establish compliance or non-compliance with established requirements (PA-7);
- the ability and readiness to investigate and analyze indicators of infectious and non-infectious morbidity of the population, planning and carrying out anti-epidemic measures in the foci of infectious diseases, on the territory of natural focal infections, as well as organizing vaccination of the population, conducting and assessing its effectiveness and safety (PA-8);

- the ability and readiness to study the health of the population using the data of official accounting and reporting documents, using sanitary-statistical and epidemiological methods, as well as on the basis of preliminary and periodic medical examinations (PA-9);
- capable and ready to take samples and conduct laboratory research using physical, chemical, biological and bacteriological and other methods (PA-10);
- is able and ready to interpret the data obtained from the survey of the object and make appropriate decisions on the basis of hygienic standards: technical regulations, standards (PA-11);

Hygienic and anti-epidemiological diagnostics

- the ability and willingness to identify cause-and-effect relationships in the system: "factor of human habitat-health of the population" (PA-12);
- the ability and readiness to determine the degree of exposure to the worker's organism of harmful factors of working conditions and its assessment; investigation of the causes of occupational diseases and poisoning (PA-13);
- the ability and readiness to assess the ecological situation in a populated area, and identify health risks associated with sources of environmental pollution (PA-14);
- the ability and readiness to identify and assess risks to the health of children and adolescents in the process of finding and studying in various children's institutions (PA-15);
- the ability and readiness to identify causal relationships of nutritional health (PA-16);
- the ability and readiness to identify the effects of radiation exposure on human health (PA-17);

- the ability and readiness to identify environmental risks to the health of military personnel (AC-18);
- the ability and readiness to study the epidemiological process in order to establish the causes and conditions of its development (PA-19).

#### Healing activities

- the ability and readiness to provide first aid in case of emergency conditions that threaten life, as well as in various extreme conditions (PA-20);
- capable and ready to study the etiology, clinical picture of various diseases, preventive measures (PA-21).

# Psychological and pedagogical activity, hygienic education

- capable and ready to carry out sanitary and educational work among the population on the prevention of diseases, maintaining a healthy lifestyle and promoting health, as well as implementing hygienic education of the personnel of supervised facilities (PA-22);

## Organizational and managerial activities

- the ability and readiness to analyze the results of their own activities and the activities of bodies exercising control and supervision functions in the field of ensuring the sanitary and epidemiological well-being of the population, protecting the rights of consumers and the consumer market, institutions carrying out their activities in order to ensure state sanitary and epidemiological supervision in the Kyrgyz Republic , other health care institutions, taking into account the requirements of official legislative, regulatory and legal documents (PA-23);
- the ability and willingness to make managerial decisions aimed at preserving the health of the population in the conditions associated with the adverse effects of the factors of the human environment (PA-24);

- the ability and willingness to develop and evaluate the effectiveness of preventive strategies separately or in collaboration with other specialists to ensure effective control (PA-25);
- possession of the basics of office work with the use and analysis of accounting and reporting documentation (PA-26).

#### Research activities

- capable and ready to study various sources of scientific and medical literature, as well as literature on hygiene, sanitation and epidemiology (PA-27);
- capable and ready to master new approaches and methods for the study of factors of the human environment, as well as its assessment (PA-28).

#### STRUCTURE, VOLUME AND CONTENT OF FSA

The total labor intensity of all stages of the FSA is one credit (30 hours).

FSA for students in the specialty 560003 "Preventive Medicine" is carried out on schedule and includes several mandatory certification tests:

- State exam on the History of Kyrgyzstan (end of the IV semester)
- State interdisciplinary complex examination in the specialty (end of the X semester).

The state comprehensive interdisciplinary final exam in the specialty is carried out in stages: test control, solving situational problems and verbal response on tickets.

- 5.1. State Exam Program on the History of Kyrgyzstan
- 5.1.1. The form of the State examination is computer testing The exam is conducted according to standard test items, compiled on the basis of a single bank of attestation assignments, covering the content of the subject "History of

Kyrgyzstan". The exam is conducted in a computer lab. When passing the test, each examinee using a special computer program by the method of random sampling from the bank of tests receives an individual task containing 50 questions. Within 45 minutes without a break, the student solves the test tasks, noting the correct answer option. The criterion for assessing knowledge is the number of correct answers to test items. The threshold score is considered to be 60 or more points. Evaluation criteria for test items: up to 60 points - "unsatisfactory", from 61 to 75 - "satisfactory", from 76 to 85 - "good" and from 86 to 100 - "excellent". The results of checking the level of theoretical training are communicated to students on the day of testing after the registration of the relevant documents.

The student is obliged to appear for testing at the time specified in the schedule.

During testing, it is not allowed to use materials that are not intended for use during the exam, namely, phones, cheat sheets, an attempt to communicate with other students or other persons, including using electronic means of communication, unauthorized movement of students, etc. These actions are the basis for removing the student from the classroom and then putting the mark "unsatisfactory" on the list.

An example of the material for certification testing is in Appendix No. 1.

- 5.1.2. The list of control questions submitted to the State Historical Agency on the History of Kyrgyzstan:
- 1. The oldest traces of man in the Tien Shan.
- 3. Stone Age and Bronze Age on the territory of Kyrgyzstan.
- 4. Saki and Usun periods in the history of Kyrgyzstan.
- 5. Kyrgyzstan during the period of the Turkic Kaganate.

- 6. Kyrgyz great power: education, development, reasons for the collapse of the state.
- 7. Karakhanid Kaganate in the Tien Shan and his heirs (X-XIII centuries).
- 8. Kyrgyzstan during the domination of the Karluks and Karakhanids.
- 9. Kyrgyz and Kyrgyzstan in the Chingizid state (XIII-XIV centuries).
- 10. Kyrgyz of the state of Mogolistan.
- 11. Ethnogenesis of the Kyrgyz people: stages, factors, theories.
- 12. The struggle of the Kyrgyz for national independence (XVI-XIX centuries).
- 13. Kyrgyzstan as part of the Kokand Khanate.
- 14. The relationship of the Kyrgyz with Russia: from the first embassies to accession.
- 15. Accession of Northern Kyrgyzstan to Russia.
- 16. Accession of Southern Kyrgyzstan to Russia.
- 17. Kyrgyzstan within the Russian Empire: changes in social, political and economic life.
- 18. Uprising of 1916 in Kyrgyzstan: causes, nature, consequences.
- 19. Features of the establishment of Soviet power in Kyrgyzstan. The essence of the Basmach movement.
- 20. Socio-economic transformations in Kyrgyzstan in the 20-30s.

- 21. Features of land and water reforms in Kyrgyzstan.
- 22. Attempts to create the Kyrgyz mountain region in 1922 and its reasons.
- 23. From the Kirghiz Autonomous Region (KAO) to the Kirghiz SSR: the formation and development of the Kirghiz Soviet statehood.
- 24. Socio-economic development of Kyrgyzstan as part of the USSR.
- 25. Kyrgyzstan during the Second World War. Heroes of Kyrgyzstan.
- 26. Kyrgyzstan during the years of "thaw" and years of "stagnation"
- 27. Development of science, culture and education in Kyrgyzstan in the twentieth century.
- 28. Kyrgyzstan in the years of perestroika and glasnost.
- 29. Sovereign Kyrgyzstan: stages of formation, problems and development prospects.
- 30. State and political structure of modern Kyrgyzstan.
- 31. Major parties and political movements in Kyrgyzstan at the present stage.
- 32. The oldest traces of man in the Tien Shan. Paleolithic.
- 33. Stone tools of labor.
- 34. Primitive beliefs.
- 35. Saki in the history of the ancient world.
- 36. The struggle of the Saks with the Persian kings.

37. In the struggle against the conquests of Alexander the Great. 38. The culture of the Saka tribes. 39. The origin of the Usun people and the formation of the state. 40. Journey of Zhan Tsan and the discovery of the Great Silk Road. 41. The city of Chigu on Issyk-Kul is the headquarters of the Usun ruler. 42. The formation of the union of the Hunnu tribes. 43. The first mention of the ethnonym "Kyrgyz" (201 BC). 44. Resettlement of the Kyrgyz from Mongolia to the Yenisei. 45. Organization of the state of Davan. 46. Orkhon-Yenisei runic written monuments. 47. Ancient Turks. 48. Formation of the Turkic state. 49. The conquest of the Kyrgyz by the Turks of the Yenisei and Central Asia. 50. Istemi-kagan. 51. Embassy of Maniah to Iran (567) and Constantinople (568).

52. Rise of the Western Turkic Kaganate - "the state of ten arrows".

53. Arab conquests in Central Asia.

54. The state of the Turgesh. Tribes of Karluks. 55. Talas battle of the Arabs with the Chinese in 751. 56. Kagan of the Kyrgyz Bars-Beg. 57. Great Power of the Kyrgyz. 58. Stone statues. 59. Ancient Kyrgyz and other types of writing. 60. Ideological views. Zoroastrianism, Tengrianism, Christianity, Buddhism, Islam. 61. Karakhanid Kaganate (X - early XIII centuries) 62. "Kutadgubilik" by Yusup Balasaguni. 63. "Divan Lugatat-Turk" by Mahmud Barskhani (Kashgari). 64. Kyrgyz and Kyrgyzstan in the state of Chingizids. XIII - XIV centuries 65. Conquest by the Mongols of the Kyrgyz of the Yenisei and Tien Shan. 66. Kyrgyz in the Chagatai ulus. 67. Formation of the state of Haidu. 68. Tatar-Mongols in Asia. 69. State of Mogolistan.

71. Muhammad-Kyrgyz. 72. Dzungar Khanate. 73. The struggle of the Kyrgyz against the Kalmaks and its reflection in the epic "Manas". 74. The movement of the Khoja in East Turkestan and the participation of the Kyrgyz in it. 75. Kyrgyz embassies to China. 76. Formation of the Kokand Khanate. 77. Kubat-biy - the leader of the Kyrgyz. 78. The role of Kyrgyz biys in palace intrigues. Kokand 79. Alymbek and Kurmanjan-datka. 80. Land relations and the problem of nomadic feudalism. 81. Spiritual culture: oral folklore, religion and beliefs. 82. Kalygul, Arstanbek, Moldo Kilich, MoldoNiyaz. 83. Embassy of I. Unkovsky (1722 - 1724). 84. The first Kyrgyz embassy to Russia (1785).

Abdrakhman Kuchakov and Shergazy are the first Kyrgyz

70. Ethnic origins of the Kyrgyz people.

85. Attack-bey.

ambassadors.

- 86. Embassy of Zibberstein F.K. to Issyk-Kul in 1825
- 87. The uprising of the Kyrgyz ser. XVIII century 70s. XIX century.
- 88. Tailak-batyr, Atantai, Dzhantai, Baytik-batyr.
- 89. The rise and fall of Ormon Khan.
- 90. Borombay and Kachibek.
- 91. P.P. Semenov-Tyan-Shansky and Ch.Ch. Valikhanov in Kyrgyzstan.
- 92. "Military-scientific" expedition of MD Skobelev to Alai (1875 1876).
- 93. Shabdan Dzhantaev.
- 94. Kurmanjan-datha is the queen of Alai.
- 95. Kyrgyzstan is a colony of the Russian Empire.
- 96. Resettlement of Russian-Ukrainian peasants to Kyrgyzstan.
- 97. Emigration of Dungans and Uighurs from China to Kyrgyzstan.
- 98. Andijan uprising.
- 99. Russian scientists and travelers in Kyrgyzstan: Severtsov I.A., Fedchenko A.P., Radlov V.V., Mushketov I.V., Przhevalsky N.M., Bartold V.V.
- 100. The first changes in culture and public education. Toktogul Satylganov and TogolokMoldo
- 101. Shyets-Bazaar.

- 102. Basmak movement.
- 103. Attempts to create the Mountain Kyrgyz region in 1922
- 104. New economic policy in Kyrgyzstan.
- 105. The origin of professional fiction and science.
- 106. Kasym Tynystanov and Ishenaly Arabaev.
- 107. Repressions of prominent figures in politics, science and culture of Kyrgyzstan in the 20-30s.
- 108. Political opposition to the totalitarian Stalinist regime.
- 109. Abdykerim Sydykov, Yusuf Abdrakhmanov, Bayaly Isakeev, Torokul Aitmatov and others.
- 110. Heroic deeds of the Kyrgyz people on the battlefields.
- 111. The Constitution of the Kirghiz SSR 1977. slogans, declarations and life truth.
- 113. The objective necessity of restructuring the entire social life of the country. Moscow putsch Prohibition of the Communist Party of the Republic. The Belovezhskaya Agreement of the leaders of Russia, Ukraine and Belarus on the denunciation of the Union Treaty. The collapse of the USSR.
- 114. Recognition of the independent Kyrgyz Republic by the international community.

Formation of parliamentarism and the institution of the president.

- 115. Consequences of the collapse of the traditional economic relations of the CIS states.
- 116. The formation of a multi-party system.
- 117. Kyrgyzstan on the world stage.
- 118. Establishment of diplomatic relations with foreign countries: Turkey, China, USA, Russia, etc.
- 119. Science, culture and education in market conditions.
- 120. Kyrgyzstan in the system of international relations.
- 121. Relations with Russia, USA and China.
- 122. Problems of national security of Kyrgyzstan in the context of globalization.
- 5.2. The form of the state certification is the final interdisciplinary exam in the specialty.

The form of the state certification is the final interdisciplinary exam in the specialty. The assessment of theoretical training is carried out in the form of computer testing and an oral complex interdisciplinary exam, the assessment of practical training is in the form of an assessment of the practical skills and abilities of graduates, the ability to solve professional problems in the form of solving situational problems in specialized disciplines. The final interdisciplinary exam in the specialty is carried out in a group of disciplines (food hygiene, communal hygiene, hygiene of children and adolescents, occupational hygiene, epidemiology) and is aimed at identifying the graduate's readiness for professional activity.

The final interdisciplinary exam in the specialty consists of 3 stages: Stage I - computer testing

Stage II - solving situational tasks

Stage III - the final interdisciplinary exam All stages of the GIA are conducted only by members of the SAC.

The first stage - test control is carried out with the technical support of KSMA. Each graduate performs one of the proposed test items. The testing includes 100 questions from the bank of questions: 25 - on communal hygiene, 25 - on occupational hygiene, 25 - on hygiene of children and adolescents, 25 - on food hygiene, 25 - on epidemiology. Testing time is 90 minutes, the number of attempts is 1. At the first stage, it is assessed credited at 60% or more correct answers, with the evaluation criteria:

up to 60 points - "unsatisfactory",

61-75 points - "satisfactory", 76-85 points - "good",

86-100 points - "excellent". An example of the material for proficiency testing is in Appendix No. 2.

The second stage is solving situational problems in order to check the integrity of the graduate's professional training, i.e. the level of his competence and the use of the theoretical base (disciplines of the basic part) for solving professional situations. The second stage is carried out in departments equipped with the necessary equipment and materials for solving five sets of situational tasks. The assessment is aimed at the degree of the graduate's abilities and skills to develop and implement optimal solutions to such situations based on the integration of the content of the disciplines included in the certification test. To carry out the practical stage, the graduating departments compile sets of practical skills with the mandatory inclusion of the following tasks:

survey schemes for epidemiologically important objects (sources of centralized drinking water supply, treatment facilities

- children's institutions, schools, food industry and public catering facilities, etc.);
- methods of sampling, measurement and analysis of various environmental parameters;
- calculation, interpretation and analysis of the main types of statistical indicators;
- preparation of documentation within the competence of a specialist in the specialty 560003 "PM".

To conduct this stage of the final interdisciplinary exam, 200 situational tasks were compiled in specialized disciplines - 40 in occupational hygiene, 40 in food hygiene, 40 in hygiene for children and adolescents, 40 in communal hygiene and 40 in epidemiology.

When compiling situational tasks, it was taken into account that graduates of the faculty of "Medical and preventive work" must have knowledge to assess the state of health of the population and the human environment, as well as to organize sanitary and epidemiological surveillance, have the skills to work with normative documentation regulating preventive and anti-epidemic measures, must have knowledge of the legislation on the protection of the health of citizens, the legal basis for the activities of specialists from the institutions of the Central State Sanitary and Epidemiological Service.

The third stage - the final interdisciplinary exam assesses the general training of graduates, the degree of their adaptation to the medical specialty.

The overall mark for the third stage of the state exam in the specialty is set based on the marks for each professional problem in the examination card.

The two subsequent stages of certification test of the interdisciplinary exam are assessed: "excellent", "good", "satisfactory",

"Unsatisfactory".

Obtaining an "unsatisfactory" grade deprives the graduate of further passing the state final test.

The mark "excellent" is given if the average score is 4.5-5; the grade is "good" if the average score is 3.5-4.4, the grade is "satisfactory" if the average score is from 3 to 3.4.

If a graduate at the last stage of the final examinations receives an "unsatisfactory" mark, an "unsatisfactory" mark is assigned to the examination sheet, regardless of the positive marks received at the previous stages.

The decision of the State Attestation Commission assign a qualification to a graduate is documented in a protocol. The results of the state final attestation are announced to the graduate on the same day after the registration and approval in the prescribed manner of the minutes of the State Attestation Commission meeting. The amount of time for preparation and implementation is 2 weeks. Dates - according to the schedule of the educational process. The duration of the stages of the exam in the specialty is determined by the head of the KSMA department.

5.3. The list of questions submitted for the state interdisciplinary complex exam in the specialty

"Medical and Preventive Business"

# 5.3.1. Communal hygiene

1. Communal hygiene as the basic science of preventive medicine. Objectives, objects and methods of study.

- 2. Ecological and hygienic problems in the field of the environment in the Kyrgyz Republic.
- 3. Comparative sanitary and hygienic assessment of the sources of centralized water supply in populated areas.
- 4. The value of the water factor in the infectious and non-infectious morbidity of the population. Prevention methods.
- 5. Hygienic principles for standardizing the quality of drinking water. Organization of production control over the quality of drinking water.
- 6. Basic and special methods of preparation of drinking water, their hygienic assessment. Hygienic requirements for coagulants and flocculants.
- 7. Sanitary and hygienic characteristics of the diagrams of the head water supply facilities of water pipelines and the distribution network from surface water supply sources.
- 8. Sanitary characteristics of the diagrams of the head water supply facilities of water pipelines and the distribution network from underground water supply sources.
- 9. Methods for disinfecting water at waterworks. Conditions, factors that determine the effectiveness of the organization of drinking water disinfection. Methods for chlorination of water at waterworks. Organization of control over disinfection.
- 10. Hygienic requirements for the organization of zones of sanitary protection of water pipelines from surface sources of drinking water supply.
- 11. Hygienic requirements for the organization of zones of sanitary protection of water pipelines from underground sources of drinking water supply.

- 12. Hygienic requirements for the organization of decentralized water supply to populated areas. Methods for disinfection of water intake facilities and water disinfection.
- 13. Sanitary and hygienic characteristics of household and municipal wastewater. The impact of water pollution on the health and sanitary conditions of the population.
- 14. Sanitary and hygienic characteristics of industrial wastewater, their impact on the state of water bodies. Methods for the neutralization of industrial effluents. Methodology for calculating VAT.
- 15. Hygienic principles of rationing of harmful chemicals in water of water bodies of the 1st and 2nd categories of water use. The concept of MPC, limiting hazard indicators, hazard classes.
- 16. Hygienic requirements for water quality in reservoirs at control points of water use. Conditions for the discharge of wastewater into water bodies.
- 17. Facilities for mechanical treatment of urban wastewater. Features of their operation and hygienic assessment of work efficiency.
- 18. Facilities for biological treatment of urban wastewater. Features of their operation and hygienic assessment of work efficiency
- 19. Soil methods of wastewater disposal (types of structures, assessment of efficiency and operational characteristics).
- 20. The system of measures for the sanitary protection of water bodies from sewage pollution.
- 21. Hygienic requirements for the design and operation of small and local sewerage systems.

- 22. Legislative and regulatory documents in the field of sanitary protection of atmospheric air. Hygienic approaches to the regulation of harmful factors in the air. Definition of the concept of MPC.
- 23. Sources of air pollution in cities and rural areas, their hygienic assessment, impact on public health and sanitary living conditions.
- 24. The concept of organized and fugitive sources of emissions into the atmosphere. Maximum permissible emissions into the atmosphere. Algorithm for calculating the MPE.
- 25. Acute and chronic effects of air pollution on the human body. Regularities of dispersion of atmospheric pollution (taking into account the characteristics of the emission and environmental factors).
- 26. Hygienic requirements for the organization of sanitary protection zones of production facilities.
- 27. Measures for the sanitary protection of atmospheric air. The main methods of cleaning gas and dust emissions. Cleaning facilities, design, operating principle and performance evaluation.
- 28. Hygienic requirements for the quality of soils in populated areas. Methodological approaches to assessing the level of soil contamination, criteria for establishing maximum permissible concentration.
- 29. Sources of soil pollution. Features and ways of soil influence on the health and living conditions of the population.
- 30. Hygienic assessment of soil biological and industrial biological methods for neutralizing solid municipal waste.
- 31. Organization of cleaning of populated areas from solid waste, assessment of stages, methods of neutralization, control of efficiency.

- 32. Organization of cleaning of populated areas from liquid household waste, assessment of stages, methods of neutralization, control of efficiency.
- 33. The concept of a dwelling, its functions. Types of dwellings. Living environment factors in the dwelling, their influence on the health status of residents.
- 34. External and internal sources of noise in the home, their hygienic assessment. Architectural planning and construction acoustic measures to prevent urban noise.
- 35. Factors shaping the microclimate of residential and public buildings. Hygienic requirements.
- 36. Hygienic assessment of ventilation systems in residential and public buildings. Air conditioning.
- 37. Hygienic assessment of heating systems in residential and public buildings. Types of heating and their comparative hygienic characteristics.
- 38. Hygienic requirements for insolation of residential and public buildings and residential areas in different climatic and geographical zones. Types of building orientation.
- 39. Hygienic requirements for the hospital site (functional zoning, building system, balance of the territory).
- 40. Hygienic requirements for the layout and sanitary equipment of medical and diagnostic departments of medical organizations. Features of planning solutions and sanitary and hygienic regime in maternity hospitals, infectious diseases hospitals.
- 41. Choosing a place for the construction of the settlement. Functional zoning of the settlement territory. The structure of the residential area.

- 42. Microdistrict, as the main structural unit of residential development of the settlement. Hygienic requirements for the organization and functional zoning of the territory.
- 43. The concept of a master plan for the development of urban and rural areas. Hygienic requirements for areas allotted for the construction of residential and public buildings.
- 44. Ecological and hygienic problems of megacities. The impact of the ecosystem of megalopolises on the health of the population.
- 45. Hygienic requirements for the organization of artificial and natural lighting in residential and public buildings.
- 46. Greening of settlements, hygienic value, classification. norms and principles of placement in the city plan.
- 47. Hygienic assessment of building materials and structures.
- 48. Principles of placing baths and laundries in the city plan. Classification, hygienic and therapeutic values.

# 5.3.2. Food hygiene

- 1. Hygienic requirements for the principles of healthy eating. The theory of a rational balanced diet as the basis of a healthy diet.
- 2. Methods of study and comprehensive assessment of the actual nutrition of the population.
- 3. Methods for studying and assessing nutritional status. Indicators of nutritional status.

- 4. Principles of rational principles of healthy eating in conditions of low physical exertion. Physiological and hygienic substantiation of the organization of nutrition for persons of mental labor.
- 5. Organization of meals in conditions of heavy and especially hard physical labor.
- 6. Physiological substantiation of the level of energy adequacy of nutrition of various professional and age groups of the population. Positive and negative energy balance.
- 7. Protein nutritional value of various groups of the population. Protein and protein-energy deficiency, clinical manifestations, diet therapy.
- 8. Methods for the determination of protein in ready meals and food products.
- 9. Hygienic problems of the use of fat in nutrition. PUFA and saturated fatty acids, their sources and importance for the body. Clinical symptoms of a lack or excess of fat.
- 10. Methods for the determination of fat in ready meals and food products.
- 11. Carbohydrates, classification, hygienic characteristics of certain types of carbohydrates. Factors that determine the amount of need. Clinical symptoms of a deficiency or excess of carbohydrates in the human diet.
- 12. Vitamins, their classification. The value of vitamins in the life of the body, factors that determine the value of the need. Exo- and endogenous causes of vitamin deficiency. Preventive actions. Foods are sources of vitamins.
- 13. Methods for the determination of vitamins in food and ready meals. Influence of the technological process on the preservation of vitamins.
- 14. Methods for determining the body's supply of vitamins.

- 15. Methods for fortifying ready-made meals in children's and medical institutions. Methods for calculating the dose of vitamins.
- 16. Mineral elements in the life of the organism, classification. Biomicroelementose. Food products are sources of mineral elements.
- 17. Manifestation of vitamin deficiency. Etiopathogenesis. Clinic. Prevention.
- 18. Diseases of excess nutrition. Alimentary risk factors for the development of obesity. Clinic. Prevention. Diet therapy.
- 1. Nutritional and biological value of milk and dairy products. Their importance in therapeutic (dietary) and therapeutic and prophylactic nutrition.
- 2. Hygienic requirements for the quality and safety of non-alcoholic and national drinks.
- 3. Hygienic requirements for the quality and safety of fats and oils.
- 4. Hygienic requirements for the quality and safety of grain products.
- 5. Hygienic requirements for the quality and safety of milk and dairy products. Milk and dairy products as a possible factor in the occurrence of food poisoning and infectious diseases.
- 6. Nutritional and biological value of products of plant origin; their importance in the nutrition of a healthy and sick person. Tasks of sanitary and epidemiological supervision (control) over their production and implementation.
- 7. Sanitary and epidemiological requirements for the quality and safety of meat and meat products. Meat as a possible factor in the occurrence of food poisoning, transmission of infectious diseases and helminthiases.

Preventive actions.

- 8. Basic sanitary and epidemiological requirements for the technological process of production, storage, transportation and sale of milk.
- 9. Basic sanitary and epidemiological requirements for the technological process of production and the sanitary regime at meat processing enterprises.
- 10. The main criteria for the quality of food: food and biological value, safety. Modern sanitary and epidemiological requirements for the safety of food raw materials and food products.
- 11. Nutritional and biological value of fish. Fish as a source of essential ingredients. Sanitary and Epidemiological Evaluation of Fish and Fish Products as a Source of Biohelminthiasis.
- 12. Classification of food additives. Requirements for food additives.
- 13. Definition and classification of food poisoning.
- 14. General principles of prevention of microbial and non-microbial food poisoning.
- 15. Food microbial toxicosis caused by enterotoxigenic strains of staphylococci. Sources and routes of food contamination. The role of individual products in the occurrence of diseases. Clinical and epidemiological features of outbreaks, laboratory diagnostics, prevention.
- 16. Botulism. Causes of occurrence. Characteristics and basic properties of vegetative forms of Cl. Botulinum, botulinum toxin and spores. The role of individual products in the occurrence of this food poisoning. Clinical and epidemiological features of botulism, laboratory diagnostics, prevention.
- 17. Food mycotoxicosis. Classification, etiology, prevalence. Features of clinical manifestations. Preventive actions.

- 18. Food toxicoinfections. Pathogens. Sources of infection and ways of contamination of food. Clinical and epidemiological features of outbreaks. Laboratory diagnostics and prevention.
- 19. Food poisoning caused by potentially pathogenic microflora.

Pathogens, sources of infection and ways of contamination of food. The role of individual products in the occurrence of diseases. Clinical and epidemiological features of outbreaks, laboratory diagnostics, prevention.

- 20. Non-microbial food poisoning. Classification. Poisoning by products of plant and animal origin. Clinic of mushroom poisoning. Preventive actions.
- 21. Methodology for sanitary and epidemiological investigation of food poisoning. Prevention of microbial and non-microbial food poisoning. The purpose and main tasks of sanitary and epidemiological supervision of public catering facilities. Methodology for examining these food items. Medical control over the health of personnel.
- 22. Purpose and main tasks of sanitary and epidemiological supervision over food items. Methodology for examining these food items. Medical control over the health of personnel.
- 23. The value, goals and objectives of nutritional therapy in the complex therapy of diseases. Organization of dietary (medical) nutrition in medical institutions.
- 24. Characteristics of the system of standard diets used in healthcare organizations carrying out medical activities in accordance with the Order of the Ministry of Health of the Kyrgyz Republic.
- 25. Therapeutic and prophylactic nutrition (MDF) at enterprises with particularly harmful and harmful working conditions, its varieties. Modern theoretical foundations of the organization of LPP.
- 26. Nutrition as a risk factor for the occurrence of alimentary-dependent diseases:

cardiovascular, gout and cancer, osteoporosis. Nutritional prevention.

- 27. Nutrition as a risk factor for the occurrence of alimentary-dependent diseases:
- obesity, type 2 diabetes mellitus, metabolic syndrome. Nutritional prevention.
- 28. Nutrition as a risk factor for the emergence of social diseases: tuberculosis, microelementosis, etc. Nutritional prevention.
- 29. Genetically modified food products. Sanitary and epidemiological requirements.
- 30. Sanitary and epidemiological requirements for the technological process of obtaining high-quality milk at the enterprises of the dairy industry.
- 31. Sanitary and epidemiological requirements for the technological process of obtaining high-quality meat at meat industry enterprises.
- 32. Fortified and functional foods. Sanitary and epidemiological requirements for them.
- 5.3.3. Hygiene of children and adolescents
- 1. The main patterns of growth and development of the child's body, depending on biological and social factors. Age periodization.
- 2. Physiological substantiation of the correct position of the body in various types of activities. The working pose of a schoolboy. Hygienic requirements for seating schoolchildren.
- 3. Physical development as an indicator of health. Study and evaluation methods.

- 4. Indicators of the health status of the child population. Factors shaping it. Methods for studying the state of health.
- 5. The incidence of children and adolescents, its age structure. Main factors.
- 6. Goals and objectives of dynamic monitoring of the physical development and health status of children and adolescents. Comprehensive health assessment.
- 7. Features of the higher nervous activity of preschool children. The significance of these features in the organization of teaching and educational work in preschool educational organizations.
- 8. The main tasks of vocational guidance for adolescents. Medico-

physiological foundations of vocational guidance and counseling for adolescents. Professionally significant body functions for choosing a profession.

- 9. The influence of labor processes on the body of adolescents. Organization of adolescents' labor regime.
- 10. Physical inactivity as a hygienic problem. Physical activity depending on age and gender.
- 11. Hygienic requirements for school furniture, educational equipment and tools
- 12. Hygienic requirements for the diet in educational institutions. The role of medical personnel in catering.
- 13. Hygienic principles of the organization of the educational process in a general educational organization. Hygienic requirements for the rational construction of the school day, week, year.
- 14. Hygienic value of school maturity. Methodology for its determination, evaluation criteria.

- 15. Hygienic requirements for catering in preschool educational institutions.
- 16. Hygienic principles for the placement of preschool educational organizations, general education and primary vocational education organizations in cities and other populated areas.
- 17. The main tasks and principles of physical education of children and adolescents, means and forms of physical education.
- 18. Influence of work with video terminals on the functions of individual organs and systems of the child's body.
- 19. Hygienic principles of design of general educational organizations.
- 20. Physiological essence of fatigue, especially its development in children of different ages. Basic principles of hygienic regulation of educational and educational process
- 21. Hygienic substantiation of educational work in preschool educational organizations. Organization of compulsory classes in preschool organizations.
- 22. Hygienic principles of children's health improvement in summer and vacation time. Types of organizations for recreation and health improvement of children.
- 23. Hygienic requirements for light conditions in organizations for children and adolescents. Hygiene of vision.
- 24. Hygienic principles of the organization of the educational and production process in institutions of primary vocational education.
- 25. Hygienic principles for the design of preschool educational organizations.

- 26. Medical and pedagogical control over the organization of physical education in children's and adolescent institutions.
- 27. Features of the higher nervous activity of preschool children. The importance of these features in the organization of various types of activities and daily routine.
- 28. Features of the influence of harmful production factors on the body of adolescents.
- 29. The importance of basic nutrients in the nutrition of children and adolescents.
- 30. The value of vitamins and minerals in the nutrition of children and adolescents.
- 31. Sanitary and hygienic requirements for the device, equipment and mode of operation on personal computers and video display terminals in children's and adolescent organizations.
- 32. Requirements for computers used in the educational process:

general, ergonomic, constructive.

- 33. Hygienic requirements for children's toys.
- 34. Hygienic requirements for school textbooks.
- 35. Tasks of sanitary supervision over the conditions of education and upbringing during summer health-improving work.
- 36. Hygienic substantiation of the rational construction of the school day, week, year. Hygienic requirements for building a lesson schedule. Regulation of the duration of lessons and breaks.
- 37. Hygiene of vision in educational organizations. The causes of myopia and measures to prevent it.

- 38. Hygienic requirements for air-thermal conditions in educational institutions.
- 39. Hygienic principles of planning, placement and improvement of stationary organizations for recreation and health improvement of children.
- 40. Hygienic principles of planning, placement and improvement of organizations for recreation and recreation of tent-type children.
- 41. Legislative framework in the field of health care for children and adolescents.
- 42. Hygiene of labor education and training in general educational organizations.
- 43. Hygienic principles of the organization of the educational process in modern educational organizations. Ways to improve and maintain the mental performance of students.
- 44. Basic principles of medical and preventive care for children within the educational organization.
- 45. Features of the daily routine of children of early and preschool age, its physiological rationale.
- 46. Hygienic substantiation of educational work in preschool educational organizations. Organization of compulsory classes in preschool organizations.
- 47. Hygienic foundations for building the daily routine of schoolchildren, its main components.
- 48. Basic laws governing the health protection of the child and adolescent population of the Kyrgyz Republic.

## 5.3.4. Occupational hygiene

- 1. Occupational hygiene: subject, tasks and methods. Features of the development of occupational health in the Kyrgyz Republic.
- 2. Organization of sanitary and epidemiological surveillance at industrial facilities. Legal basis for scheduled and unscheduled inspections of legal entities and individual entrepreneurs.
- 3. Harmful and hazardous production factors, classification and their impact on the body of a working person.
- 4. Types of physical labor. Physiological features of dynamic and static work. Changes in the body during various types of physical labor. Criteria for assessing the severity of the labor process.
- 5. Mental work and its psychophysiological features. Criteria for assessing the tension of the labor process. Measures for the prevention of psychoemotional overstrain in modern conditions.
- 6. Physiological, hygienic and psychological characteristics of modern forms of labor and types of its organization. Measures to optimize modern forms of labor. Features of labor under conditions of mechanization and automation of production (monotony, hypodynamia). Measures to improve performance and prevent fatigue and overwork.
- 7. Physiological and hygienic aspects of the working posture. Ergonomic requirements for equipment, workplace and tools.
- 8. Personal protective equipment in the system of recreational activities, their classification. Basic hygiene requirements for PPE.
- 9. Industrial microclimate. Principles of regulation depending on the nature of production and type of work. Measures to improve working conditions working in a heating and cooling microclimate.

- 10. Ultraviolet radiation. Industrial sources of UV radiation. Biological action. Changes in the air environment under the influence of UV radiation. Preventive actions.
- 11. Infrared radiation, its sources at work. Features of its action on the body. Occupational diseases and measures for their prevention.
- 12. Concept and classification of industrial dust. Physicochemical properties and their significance. Routes of entry and behavior of dust in the body. The system of measures to combat dust and the prevention of dust pathology.
- 13. Industrial noise. Basic physical and hygienic characteristics. Noise classification. Principles of hygienic noise regulation. Sources of industrial noise. The effect of noise on the body. Preventive actions.
- 14. Infrasound as unfavorable factors of the working environment, their main physical and hygienic characteristics, sources at work. Action on the body. Preventive actions
- 1. Ultrasound as unfavorable factors of the working environment, their main physical and hygienic characteristics, sources at work. Action on the body. Preventive actions.
- 2. Industrial vibration, classification, principles of rationing. Vibration disease. Protection and prevention measures.
- 3. Electromagnetic fields of radio frequencies. Scopes, biological action and principles of regulation of EMF of radio frequencies. Protective measures when working with sources of EMF.
- 4. Lasers: application, classification. Unfavorable factors when working with lasers. The effect of laser radiation on the body. General and personal protective equipment.
- 5. High and low atmospheric pressure. Action on the body. Decompression, altitude sickness. Preventive actions.

- 6. Industrial poisons, classification. Modern problems of industrial toxicology.
- 7. The concept of "harmful substances", toxicity and danger. The main parameters of toxicometry. Classification of harmful substances by toxicity and hazard.
- 8. The concept of MPC and tentatively safe exposure levels (OSL) of industrial poisons in the air of the working area. The principles and methods of their establishment. Acute and chronic occupational poisoning. Features of the action of industrial poisons in the long term.
- 9. Pesticides. Classification, Toxicological and hygienic characteristics of the main groups of pesticides. Forms and methods of transportation, storage and use of pesticides and their hygienic significance.
- 10. Occupational hygiene when working with organochlorine, phosphate and mercury pesticides. Effects on the body. General and personal preventive measures.
- 11. Hygienic foundations of industrial ventilation as a means of collective protection. Classification. Hygienic requirements for the organization of industrial ventilation in conditions of increased dust, heat, moisture formation.
- 12. Industrial lighting. Hygienic requirements, principles of regulation. The effect of lighting on health and performance.
- 13. Occupational health in the mining industry. Main production processes. Occupational hazards, their effect on the body. Measures to improve working conditions.
- 14. Occupational hygiene in the extraction of minerals. Main production processes. Occupational hazards and their effect on the body. Preventive actions.

- 15. Occupational hygiene in hot (blacksmith) workshops of mechanical engineering. Occupational hazards and their effect on the body. Preventive actions.
- 16. Occupational hygiene in hot (thermal) workshops of mechanical engineering. Occupational hazards and their effect on the body. Preventive actions.
- 17. Occupational hygiene in machine shops. Main production processes. Occupational hazards and their effect on the body, recreational activities.
- 18. Occupational hygiene in welding shops. Main production processes. Occupational hazards and their effect on the body, recreational activities.
- 19. Occupational hygiene in field cultivation. Main production processes. Occupational hazards, their effect on the body. Wellness activities.
- 20. Occupational hygiene in the cultivation of grain crops. Main production processes. Occupational hazards, their effect on the body. Wellness activities.
- 21. Occupational hygiene in the cultivation of sugar beet. Basic production processes. Occupational hazards, their effect on the body. Wellness activities.
- 22. Occupational hygiene in cotton growing. Main production processes. Occupational hazards, their effect on the body. Wellness activities.
- 23. Occupational hygiene in greenhouses. Main production processes. Occupational hazards, their effect on the body. Wellness activities.
- 24. Occupational hygiene in animal husbandry. Main production processes. Occupational hazards, their effect on the body. Wellness activities.
- 25. Occupational hygiene in the production of binders (cement, lime, gypsum). Occupational hazards and their effect on the body. Preventive actions.

- 26. Occupational hygiene in the production of wall materials (bricks, panels, blocks). Occupational hazards and their effect on the body. Preventive actions.
- 27. Occupational hygiene in construction. Occupational hazards and their effect on the body. Preventive actions.
- 28. Occupational health in the chemical industry. Features of technological processes. The main industrial hazards and their effect on the body. Wellness activities.
- 29. Occupational hygiene in light industry. Main production processes. Occupational hazards and effects on the body. Wellness activities.
- 30. Occupational hygiene in the garment industry. Main production processes. Occupational hazards and effects on the body. Wellness activities.
- 31. Occupational health of women.
- 32. Occupational hygiene of adolescents.
- 33. Legal status, rights, duties and responsibilities of an occupational health doctor
- 34. medical examinations in the prevention of occupational diseases. The role of the occupational health doctor in organizing and conducting preliminary and periodic medical examinations.

## **5.3.5.** Epidemiology

- 1. The modern structure of social, natural and biological factors of the epidemiological process. Epidemiological safety, stages of its achievement.
- 2. Operational and retrospective epidemiological analysis. Organizational work and planning.

3. Epidemiology of emergencies. The content and organization of sanitary and anti-epidemic measures in emergency

situations.

- 4. Bioterrorism, biological hazard, security measures.
- 5. Epidemiological surveillance. Purpose, objectives and principles of epidemiological surveillance. Organizational structure and subject of surveillance.
- 6. Levels of legal support for anti-epidemic practice in the Kyrgyz Republic. Legal framework for the prevention of infectious diseases.
- 7. The structure of preventive (anti-epidemic) measures.

Anti-epidemic work in the focus of an infectious disease.

- 8. Disinfection. Definition. Levels, types and methods of disinfection. 5.5.15. Disinfection and sterilization in healthcare facilities. Quality control of sterilization stages.
- 9. Modern methods of disinfection and sterilization. Chemical disinfection method.
- 10. Medical waste. Classification, collection rules, disposal.
- 11. Medical disinsection and deratization. Fight against head lice. Normative legal acts.
- 12. Vaccine prophylaxis. Indications and contraindications for vaccinations.
- 13. Classification of medical immunobiological preparations. Vaccine quality criteria. Immunological bases of vaccination. Booster effect.

- 14. The essence and goals of immunization. Legal and regulatory framework for immunization. Law of the Kyrgyz Republic "On immunization of infectious diseases."
- 15. Order of the Ministry of Health of the Kyrgyz Republic "On the national calendar of preventive vaccinations and the calendar for epidemiological indications" and amendments and additions to this order. Planned and emergency immunoprophylaxis.
- 5.5.23. Organization of vaccination work. Basic normative documents on the organization of vaccination work.
- 16. Conditions for storage and transportation of vaccines. Cold chain.
- 17. Post-vaccination reactions and complications. The legal basis for the provision of medical and social assistance to citizens in the event of post-vaccination complications.
- 18. Epidemiological structure of infections associated with the provision of medical care, factors contributing to the growth, prerequisites and precursors of nosocomial infections.
- 19. Features of the epidemiology and prevention of infections associated with the provision of medical care in obstetric hospitals. Protective equipment for medical personnel from infection.
- 20. Peculiarities of epidemiology and prevention of infections associated with the provision of medical care in surgical hospitals. The main directions of disinfection measures.
- 21. General characteristics of infections with an aerogenic transmission mechanism. Features of the epidemic process. The main directions of prevention.
- 22. Diphtheria. Source of infection. Mechanism and ways of transmission. Manifestation of the epidemic process. Preventive and anti-epidemic measures. Immunoprophylaxis against diphtheria. Timing and scheme of immunization.

23. Whooping cough. Characteristics of the pathogen. Contagiousness of sources of infection. Mechanism and ways of transmission. Manifestation of the epidemic process.

Preventive and anti-epidemic measures.

24. Streptococcal infection. Characteristics of the pathogen. Source of infection. Mechanism and ways of transmission. Manifestation of the epidemic process.

Preventive and anti-epidemic measures.

- 25. Meningococcal infection. Antigenic heterogeneity of the pathogen. Source of infection. Mechanism and ways of transmission. Manifestation of the epidemic process. Epidemiological surveillance. Prevention. Immunoprophylaxis. Primary anti-epidemic measures in the outbreak.
- 26. Measles. Characteristics of the pathogen. Source of infection. Mechanism and ways of transmission. The mechanism of development and manifestation of the epidemic process. Preventive and anti-epidemic measures. Measles elimination prospects.
- 27. Rubella. Characteristics of the pathogen. Source of infection. Mechanism and ways of transmission. The mechanism of development and manifestation of the epidemic process. Congenital rubella. Preventive and anti-epidemic measures.
- 28. Epidemic parotitis. Characteristics of the pathogen. Source of infection.

Mechanism and ways of transmission. Manifestation of the epidemic process.

Preventive and anti-epidemic measures.

29. Chickenpox. Characteristics of the pathogen. Source of infection. Mechanism and ways of transmission. Manifestation of the epidemic process. Preventive and anti-epidemic measures.

- 30. Influenza and other respiratory viral infections. General characteristics of the group of infections. Socio-economic and epidemiological significance. Theories of variability. Manifestation of the epidemic process. Modern means of influenza prevention. Anti-epidemic measures.
- 31. Epidemiology and prevention of anthroponosis with fecal-oral transmission mechanism.
- 32. Shigellosis. Characteristics of the pathogen. Source and transmission mechanism. Epidemiological features of Grigoriev-Shiga, Flexner and Sonne dysentery. Manifestations of the epidemic process. Primary anti-epidemic measures in the outbreaks, dispensary observation of children.
- 33. Cholera. The main epidemiological mechanisms of clinical manifestations in cholera. Characteristics of the pathogen. Source and mechanism of transmission of infection. Primary anti-epidemic measures in identifying a patient with cholera.
- 34. Typhoid fever. Paratyphoid A and B. Characteristics of the pathogen. Source of infection. Mechanism and ways of transmission. Manifestations of the epidemic process.

## Preventive and anti-epidemic measures.

- 35. Rotavirus gastroenteritis. Characteristics of the pathogen. Source of infection. Mechanism and ways of transmission. The mechanism and manifestations of the epidemic process. Prevention.
- 36. Intestinal Escherichiosis. Characteristics of the pathogen. Source of infection. Mechanism and ways of transmission. The mechanism and manifestations of the epidemic process. Prevention.
- 37. Hepatitis A and E. Periods of infectivity of sources of the causative agent of infection, mechanism, ways and factors of transmission. Manifestations of the

epidemic process. Epidemiological surveillance. Preventive and anti-epidemic measures.

- 38. Poliomyelitis. Source of infection. Mechanism and ways of transmission. Prevention. Global P1. Non-polio enterovirus infections. Source of infection. Mechanism and ways of transmission. Prevention. Global Polio Eradication Program. Tour vaccination.
- 39. Epidemiology and prevention of contagious helminthiasis.
- 40. Epidemiology and prevention of biohelminthiasis
- 41. Epidemiology and prevention of geohelminthiasis
- 42. General characteristics of sapronoses.
- 44. Legionellosis. Characteristics of the pathogen. Source of infection. Mechanism and ways of transmission. Manifestation of the epidemic process. Preventive and anti-epidemic measures.
- 45. Tetanus. Source of infection. Mechanism and ways of transmission. Manifestation of the epidemic process. Planned and emergency tetanus prophylaxis.
- 46. Epidemiological characteristics of parenteral hepatitis. Epidemiological pathogenesis, structure of transmission routes. Immunoprophylaxis against hepatitis B, terms and schemes of immunization.
- 47. Epidemiological features, patterns of HIV spread. Transfer mechanism. Transmission path structure. Manifestation of the epidemic process. Preventive and anti-epidemic measures.
- 48. HIV infection. The concept of "high risk behavior" in HIV / AIDS epidemiology. The role of women in the spread of HIV and STIs. Preventive and anti-epidemic measures.

- 49. General characteristics of zoonoses.
- 50. Rabies. Features of the pathogen. The role of animals in maintaining the circulation of the pathogen. The main epidemiological signs. Planned and emergency prevention. Anti-epidemic measures.
- 51. Epidemiology and patterns of natural focus of hemorrhagic fevers.
- 52. Epidemiology of salmonellosis, foodborne toxicoinfections.
- 53. Epidemiology of brucellosis.
- 54. Epizootic features and patterns of natural plague foci.
- 55. Epidemiological features, patterns of the spread of anthrax.
- 56. Epidemiological features, patterns of distribution of tick-borne viral encephalitis.
- 57. Epidemiology of natural focality of tularemia. Typification of foci, modern features of the types of foci.
- 58. Quarantine infections. Sanitary protection of the territory of the Kyrgyz Republic.
- 59. Epidemiology of oncological diseases, risk factors, preventive measures.
- 60. Epidemiology of cardiovascular diseases, risk factors, preventive measures.

## **5.4.** List of practical skills and abilities

## **5.4.1.** Communal hygiene

- 1. Assessment of the health status of the population as a whole, as well as individual social and age groups in connection with the pollution of environmental objects, incl. in relation to risk factors for the development of diseases;
- 2. statistical processing of the material obtained in the study of the state of environmental objects and public health, and drawing up an opinion on the materials of a hygienic analysis of the state of environmental objects and public health;
- 3. development of a set of hygienic measures for the prevention of cases of noncommunicable diseases associated with environmental pollution;
- 4. assessment and drawing up a conclusion on the water quality of the water supply system (headworks and network);
- 5. Assessment of the organization of industrial control over water quality in a centralized drinking water supply;
- 6. drawing up a plan for sanitary control of the quality of drinking tap water; development of sanitary and hygienic measures in case of deterioration in the quality of tap water;
- 7. drawing up an act of inspection of the waterworks; drawing up an action plan to eliminate deficiencies in the work of the waterworks, identified during its examination;
- 8. Conducting a hygienic assessment of the sources of centralized water supply in accordance with GOST 2761-84;
- 9. assessment of the water quality of the decentralized water supply source, the correctness of the water intake structure;
- 10. calculation of the conditions for the discharge of wastewater into water bodies;

- 11. drawing up an opinion on the results of laboratory research of urban and industrial drainage;
- 12. development of a plan of water protection measures in order to protect public health;
- 13. drawing up a sanitary conclusion based on the results of a hygienic assessment of design materials for various sewage systems in populated areas;
- 14. drawing up an opinion on the sanitary state of the soils of the settlement;
- 15. Assessment of the quality of atmospheric air in the territory of residential development of populated areas according to the data of stationary and route posts; hygienic assessment of security measures;
- 16. assessment of the duration of insolation of the residential area and buildings; execution of a sanitary certificate, development of hygienic recommendations for optimizing the insolation regime of the supervised object;
- 17. appraisal of the land plot for the construction of populated areas, functional zoning of the territory and the development system;
- 18. Evaluation of the general plan of the hospital and drawing up a sanitary report;
- 19. Conducting a hygienic assessment of the action plan for nonspecific prophylaxis of nosocomial infection;
- 20. Conducting a hygienic assessment of the microclimate of premises for various purposes and assessing the correctness of calculating the required air exchange in them; carrying out a hygienic assessment of the engineering and technical systems of the hospital and the organization of sanitary cleaning;
- 21. Carrying out a hygienic assessment of heating and ventilation systems in residential and public buildings;

- 22. assessment of the level of traffic noise by calculation methods;
- 23. assessment of the functional zoning of the territory of a populated area;
- 24. drawing up a sanitary conclusion on projects of water supply, sewerage and planning of urban and rural settlements.

### 5.4.2. Food hygiene

- 1. to apply the legislation of the Kyrgyz Republic in the field of technical regulation, ensuring the sanitary and epidemiological well-being of the population, protecting the rights of consumers;
- 2. to carry out an examination of the submitted normative and technical documentation for food products;
- 3. to carry out sanitary and epidemiological examinations, investigations, examinations, studies, testing of food products and food items;
- 4. interpret the results of laboratory tests, research, as well as toxicological and hygienic assessments of food products;
- 5. to draw up expert opinions, protocols of research, tests and other types of assessments;
- 6. to carry out sampling of food products at all stages of their production and circulation, to resolve the issue of compliance (non-compliance) of food products and raw materials with hygienic requirements;
- 7. organize preliminary and periodic medical examinations of employees of food enterprises and analyze their results for the development of sanitary and hygienic measures;

8. to identify risk factors for human diseases associated with the nature of nutrition; carry out preventive measures with them;

9.to carry out control and supervisory functions in the field of sanitary

epidemiological well-being of the population, including the implementation of supervision in the field of consumer protection;

- 10. to carry out sanitary and anti-epidemic (preventive) measures aimed at preventing the occurrence of infectious diseases and mass non-infectious diseases (poisoning);
- 11. to carry out hygienic training of workers of food facilities, sanitary educational work among the population and promotion of a healthy lifestyle;
- 12. to establish the causes of the emergence and spread of infectious diseases and mass non-infectious diseases (poisoning) in connection with food products and to assess the consequences of the emergence and spread of such diseases (poisoning);
- 13. to assess the nutritional status and actual nutritional status of various groups of the population;
- 14. to carry out sanitary and hygienic control over the organization of medical and preventive nutrition for workers employed in harmful and especially harmful working conditions;
- 15. to carry out sanitary and hygienic control over the organization of medical nutrition in health care facilities; the use of dietary food in health resorts and in the public catering system;
- 16. to draw up and maintain medical documentation, draw up acts of sanitary and hygienic examination of food objects, acts of sampling food

products;

17. to identify violations of hygienic and sanitary-epidemiological rules and norms in the course of the technological process of obtaining products, violations of hygienic and sanitary-epidemiological rules and norms during storage, transportation and sale of products;

## **5.4.3.** Hygiene of children and adolescents

- 1. drawing up a program for studying the state of health of the child population; organization and conduct of the study and assessment of the physical development of children and adolescents (individual and team);
- 2. organization of the study of the physical development of the child population, obtaining its main indicators, the development of age-sex standards;
- 3. analysis of the health status of the child population and the development of a plan for health improvement and sanitary and hygienic measures;
- 4. Conducting a comprehensive assessment of the child's health status with the definition of a health group;
- 5. assessment of physical and mental performance and functional state of the body of children and adolescents in the process of activity;
- 6. assessment of the daily routine of the individual and the children's team;
- 7. Carrying out a study and assessment of the organization and conditions of the educational process in institutions for children and adolescents;
- 8. conducting a study and hygienic assessment of physical education of children and adolescents;
- 9. conducting a study and hygienic assessment of the organization and conditions of labor, polytechnic education and labor of children and adolescents, as well as vocational training of adolescents;

- 10. hygienic assessment of the nutrition of a child and adolescent in organized groups according to the data provided;
- 11. hygienic assessment of educational furniture and seating for students, children's toys, textbooks and teaching aids for students based on the results of examination and instrumental and laboratory control;
- 12. Conducting a hygienic assessment of the project of a preschool institution, secondary educational institution.

### 5.4.4. Occupational hygiene

- 1. development of a plan of sanitary and recreational measures to improve working conditions at the objects of supervision;
- 2. Conducting a hygienic assessment of design documentation for the construction of industrial facilities;
- 3. implementation of sanitary supervision during construction and reconstruction;
- 4. Carrying out a hygienic assessment of normative and technical documentation (technical assignments, technical conditions, etc.) for new technical specifications. processes, production equipment, work tools, substances and materials;
- 5. control over the implementation of measures to prevent the impact of harmful factors in the working environment;
- 6. Assessment of the influence of labor activity and factors of the working environment on the organism of workers according to the data presented;
- 7. assessment of the severity and intensity of labor, development of measures to prevent fatigue and ensure a rational regime of work and rest;

- 8. assessment of the conformity of production equipment to ergometric requirements according to the data provided;
- 9. hygienic assessment of physical, chemical and biological factors of the working environment based on the results of instrumental and laboratory control, development of measures to limit or eliminate their harmful effects on the body of workers;
- 10. Carrying out the analysis of materials of morbidity with TD and occupational morbidity and identification of causal relationships between health and working conditions of workers according to the data provided;
- 11. control over the organization and conduct of medical examinations;
- 12. Investigation of cases of occupational poisoning and diseases, drawing up acts of investigation. Development of recommendations for their prevention.

## 5.4.5. Epidemiology

- 1. to fill in the card of epidemiological examination of the focus of a specific infectious disease (at the choice of the teacher);
- 2. to analyze and find shortcomings in the act of investigation of an outbreak of an infectious disease;
- 3. to conduct a retrospective assessment of the level, structure, dynamics of morbidity (based on the proposed tasks);
- 4. to assess the epidemiological, social and economic significance of the disease (based on the proposed objectives);
- 5. to assess the rank value of individual classes, groups and nosological groups of diseases in terms of morbidity, temporary disability, mortality, disability, etc. (based on the proposed tasks);

- 6. to predict the incidence of the population and its individual groups (based on the proposed tasks);
- 7. formulate and evaluate hypotheses about the causal relationship of morbidity with risk factors (based on the proposed tasks);
- 8. to issue epidemiological documentation (accounting and reporting forms.);
- 9. evaluate the correctness of the medical documentation;
- 10. the procedure for putting on the anti-plague suit. Time standard.

# 6. CRITERIA FOR EVALUATION OF THE TOTAL INTERDISCIPLINARY EXAM

Students' knowledge, abilities and skills are assessed separately for each stage of the final interdisciplinary exam in the specialty, in accordance with the assessment criteria: polio Eradication Program. Tour vaccination.

- 1. Non-polio enterovirus infections. Source of infection. Mechanism and ways of transmission. Prevention. Global Polio Eradication Program. Tour vaccination.
- 2. Epidemiology and prevention of contagious helminthiasis.
- 3. Epidemiology and prevention of biohelminthiasis 42. Epidemiology and prevention of geohelminthiasis
- 43. General characteristics of sapronoses.
- 44. Legionellosis. Characteristics of the pathogen. Source of infection. Mechanism and ways of transmission. Manifestation of the epidemic process. Preventive and anti-epidemic measures.

- 45. Tetanus. Source of infection. Mechanism and ways of transmission. Manifestation of the epidemic process. Planned and emergency tetanus prophylaxis.
- 46. Epidemiological characteristics of parenteral hepatitis. Epidemiological pathogenesis, structure of transmission routes. Immunoprophylaxis against hepatitis B, terms and schemes of immunization.
- 47. Epidemiological features, patterns of HIV spread. Transfer mechanism. Transmission path structure. Manifestation of the epidemic process. Preventive and anti-epidemic measures.
- 48. HIV infection. The concept of "high risk behavior" in HIV / AIDS epidemiology. The role of women in the spread of HIV and STIs. Preventive and anti-epidemic measures.
- 49. General characteristics of zoonoses.
- 50. Rabies. Features of the pathogen. The role of animals in maintaining the circulation of the pathogen. The main epidemiological signs. Planned and emergency prevention. Anti-epidemic measures.
- 51. Epidemiology and patterns of natural focus of hemorrhagic fevers.
- 52. Epidemiology of salmonellosis, foodborne toxicoinfections.
- 53. Epidemiology of brucellosis.
- 54. Epizootic features and patterns of natural plague foci.
- 55. Epidemiological features, patterns of the spread of anthrax.
- 56. Epidemiological features, patterns of distribution of tick-borne viral encephalitis.

- 57. Epidemiology of natural focality of tularemia. Typification of foci, modern features of the types of foci.
- 58. Quarantine infections. Sanitary protection of the territory of the Kyrgyz Republic.
- 59. Epidemiology of oncological diseases, risk factors, preventive measures.
- 60. Epidemiology of cardiovascular diseases, risk factors, preventive measures.

## 5.4. List of practical skills and abilities

### 5.4.1. Communal hygiene

- 1. Assessment of the health status of the population as a whole, as well as individual social and age groups in connection with the pollution of environmental objects, incl. in relation to risk factors for the development of diseases;
- 2. statistical processing of the material obtained in the study of the state of environmental objects and public health, and drawing up an opinion on the materials of a hygienic analysis of the state of environmental objects and public health;
- 3. development of a set of hygienic measures for the prevention of cases of noncommunicable diseases associated with environmental pollution;
- 4. assessment and drawing up a conclusion on the water quality of the water supply system (headworks and network);
- 5. Assessment of the organization of industrial control over water quality in a centralized drinking water supply;

- 6. drawing up a plan for sanitary control of the quality of drinking tap water; development of sanitary and hygienic measures in case of deterioration in the quality of tap water;
- 7. drawing up an act of inspection of the waterworks; drawing up an action plan to eliminate deficiencies in the work of the waterworks, identified during its examination:
- 8. Conducting a hygienic assessment of the sources of centralized water supply in accordance with GOST 2761-84;
- 9. assessment of the water quality of the decentralized water supply source, the correctness of the water intake structure;
- 10. calculation of the conditions for the discharge of wastewater into water bodies;
- 11. drawing up an opinion on the results of laboratory research of urban and industrial drainage;
- 12. development of a plan of water protection measures in order to protect public health:
- 13. drawing up a sanitary conclusion based on the results of a hygienic assessment of design materials for various sewage systems in populated areas;
- 14. drawing up an opinion on the sanitary state of the soils of the settlement;
- 15. Assessment of the quality of atmospheric air in the territory of residential development of populated areas according to the data of stationary and route posts; hygienic assessment of security measures;
- 16. assessment of the duration of insolation of the residential area and buildings; execution of a sanitary certificate, development of hygienic recommendations for optimizing the insolation regime of the supervised object;

- 17. appraisal of the land plot for the construction of populated areas, functional zoning of the territory and the development system;
- 18. Evaluation of the general plan of the hospital and drawing up a sanitary report;
- 19. Conducting a hygienic assessment of the action plan for nonspecific prophylaxis of nosocomial infection;
- 20. Conducting a hygienic assessment of the microclimate of premises for various purposes and assessing the correctness of calculating the required air exchange in them; carrying out a hygienic assessment of the engineering and technical systems of the hospital and the organization of sanitary cleaning;
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- 24. drawing up a sanitary conclusion on projects of water supply, sewerage and planning of urban and rural settlements.

## 5.4.2. Food hygiene

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- 5. to draw up expert opinions, protocols of research, tests and other types of assessments;
- 6. to carry out sampling of food products at all stages of their production and circulation, to resolve the issue of compliance (non-compliance) of food products and raw materials with hygienic requirements;
- 7. organize preliminary and periodic medical examinations of employees of food enterprises and analyze their results for the development of sanitary and hygienic measures;
- 8. to identify risk factors for human diseases associated with the nature of nutrition; carry out preventive measures with them;
- 9.to carry out control and supervisory functions in the field of sanitary

epidemiological well-being of the population, including the implementation of supervision in the field of consumer protection;

- 10. to carry out sanitary and anti-epidemic (preventive) measures aimed at preventing the occurrence of infectious diseases and mass non-infectious diseases (poisoning);
- 11. to carry out hygienic training of workers of food facilities, sanitary educational work among the population and promotion of a healthy lifestyle;
- 12. to establish the causes of the emergence and spread of infectious diseases and mass non-infectious diseases (poisoning) in connection with food products and to assess the consequences of the emergence and spread of such diseases (poisoning);

- 13. to assess the nutritional status and actual nutritional status of various groups of the population;
- 14. to carry out sanitary and hygienic control over the organization of medical and preventive nutrition for workers employed in harmful and especially harmful working conditions;
- 15. to carry out sanitary and hygienic control over the organization of medical nutrition in health care facilities; the use of dietary food in health resorts and in the public catering system;
- 16. to draw up and maintain medical documentation, draw up acts of sanitary and hygienic examination of food objects, acts of sampling food

#### products;

17. to identify violations of hygienic and sanitary-epidemiological rules and norms in the course of the technological process of obtaining products, violations of hygienic and sanitary-epidemiological rules and norms during storage, transportation and sale of products;

## **5.4.3.** Hygiene of children and adolescents

- 1. drawing up a program for studying the state of health of the child population; organization and conduct of the study and assessment of the physical development of children and adolescents (individual and team);
- 2. organization of the study of the physical development of the child population, obtaining its main indicators, the development of age-sex standards;
- 3. analysis of the health status of the child population and the development of a plan for health improvement and sanitary and hygienic measures;

- 4. Conducting a comprehensive assessment of the child's health status with the definition of a health group;
- 5. assessment of physical and mental performance and functional state of the body of children and adolescents in the process of activity;
- 6. assessment of the daily routine of the individual and the children's team;
- 7. Carrying out a study and assessment of the organization and conditions of the educational process in institutions for children and adolescents;
- 8. conducting a study and hygienic assessment of physical education of children and adolescents;
- 9. conducting a study and hygienic assessment of the organization and conditions of labor, polytechnic education and labor of children and adolescents, as well as vocational training of adolescents;
- 10. hygienic assessment of the nutrition of a child and adolescent in organized groups according to the data provided;
- 11. hygienic assessment of educational furniture and seating for students, children's toys, textbooks and teaching aids for students based on the results of examination and instrumental and laboratory control;
- 12. Conducting a hygienic assessment of the project of a preschool institution, secondary educational institution.

## 5.4.4. Occupational hygiene

1. development of a plan of sanitary and recreational measures to improve working conditions at the objects of supervision;

- 2. Conducting a hygienic assessment of design documentation for the construction of industrial facilities;
- 3. implementation of sanitary supervision during construction and reconstruction;
- 4. Carrying out a hygienic assessment of normative and technical documentation (technical assignments, technical conditions, etc.) for new technical specifications. processes, production equipment, work tools, substances and materials;
- 5. control over the implementation of measures to prevent the impact of harmful factors in the working environment;
- 6. Assessment of the influence of labor activity and factors of the working environment on the organism of workers according to the data presented;
- 7. assessment of the severity and intensity of labor, development of measures to prevent fatigue and ensure a rational regime of work and rest;
- 8. assessment of the conformity of production equipment to ergometric requirements according to the data provided;
- 9. hygienic assessment of physical, chemical and biological factors of the working environment based on the results of instrumental and laboratory control, development of measures to limit or eliminate their harmful effects on the body of workers;
- 10. Carrying out the analysis of materials of morbidity with TD and occupational morbidity and identification of causal relationships between health and working conditions of workers according to the data provided;
- 11. control over the organization and conduct of medical examinations;
- 12. Investigation of cases of occupational poisoning and diseases, drawing up acts of investigation. Development of recommendations for their prevention.

#### 5.4.5. Epidemiology

- 1. to fill in the card of epidemiological examination of the focus of a specific infectious disease (at the choice of the teacher);
- 2. to analyze and find shortcomings in the act of investigation of an outbreak of an infectious disease;
- 3. to conduct a retrospective assessment of the level, structure, dynamics of morbidity (based on the proposed tasks);
- 4. to assess the epidemiological, social and economic significance of the disease (based on the proposed objectives);
- 5. to assess the rank value of individual classes, groups and nosological groups of diseases in terms of morbidity, temporary disability, mortality, disability, etc. (based on the proposed tasks);
- 6. to predict the incidence of the population and its individual groups (based on the proposed tasks);
- 7. formulate and evaluate hypotheses about the causal relationship of morbidity with risk factors (based on the proposed tasks);
- 8. to issue epidemiological documentation (accounting and reporting forms.);
- 9. evaluate the correctness of the medical documentation;
- 10. the procedure for putting on the anti-plague suit. Time standard.

#### 6. CRITERIA FOR EVALUATION OF THE TOTAL

#### INTERDISCIPLINARY EXAM

Students' knowledge, abilities and skills are assessed separately for each stage of the final interdisciplinary exam in the specialty, in accordance with the assessment criteria

**Evaluation** 

# Criteria for assessing knowledge of the final interdisciplinary exam:

# **Five (5)**

The answer is complete and correct. The student deeply studied the basic and additional literature recommended by the program. Intelligently uses the basic terms of the discipline and educational material of increased complexity. Knows how to integrate the knowledge gained with knowledge in related academic disciplines. He possesses the skills of conducting an experiment (chemical or others, depending on the discipline) and interprets the obtained experimental data, analyzes and makes reasoned conclusions.

## **Four (4)**

The answer is complete. The student owns the program teaching material, has mastered the basic literature recommended by the program. In general, he correctly applies specific terminology, but makes several insignificant mistakes in knowledge and actions, which he eliminates when the teacher leads him. Possesses the skills of conducting an experiment (chemical or others, depending on the discipline), can analyze its progress.

# Satisfactory (3)

Incomplete knowledge of the discipline, contains single significant errors, which the student corrects with leading (additional) questions from the teacher. The student has the skills to use specific terminology, but finds it difficult to determine the mechanisms of the described phenomena. Possesses the basic skills of setting up an experiment (chemical or others, depending on the discipline), but cannot analyze its course and results.

## **Unsatisfactory (2)**

The student refuses to answer, or his answer demonstrates a complete lack of knowledge of the educational material. The student cannot solve any problem, does not participate in the experiment, does not possess any of the skills in setting it up.

#### **Evaluation**

# **Evaluation criteria for solving situational tasks**

#### **Five (5)**

deserves a student who has shown a comprehensive, systematic and deep knowledge of the educational material provided by the program, who has mastered the basic and additional literature. Uses scientific terminology accurately. Creatively applies the acquired knowledge when solving situational problems in specialized disciplines. Knows how to integrate the knowledge gained with knowledge in related academic disciplines. Stylistically competently and logically correctly sets out the answers to questions, knows how to draw well-grounded conclusions.

#### **Four (4)**

deserves a student who has discovered a complete knowledge of educational and program material, has mastered the basic literature. Confidently uses scientific terminology. Solves professional problems on his own, but in the course of the answer makes several insignificant mistakes, which he corrects with leading questions from the teacher. Correctly expounds the answers to questions, knows how to draw conclusions.

## Satisfactory (3)

deserves a student who has shown knowledge of the basic educational material, familiar with the basic literature and scientific terminology. The student independently solves situational problems, however, the answer is incomplete and contains errors, including single significant ones, which he corrects with leading (additional) questions of the teacher.

# **Unsatisfactory (2)**

is given to a student who has discovered significant gaps in the knowledge of the basic educational and program material. The student does not know how to use scientific terminology, finds it difficult to solve professional problems, cannot analyze the results obtained. The answer contains significant errors that the student cannot eliminate with the instructor's leading (additional) questions.

Appendix 2

Example of proficiency testing material Kyrgyz State Medical Academy. Faculty of "Preventive Medicine"

#### STATE FINAL CERTIFICATION OF GRADUATES

- 1. Features of the technological process in the production of sausages are the most dangerous in terms of sanitation:
- a. trimming, deboning of meat, obtaining minced meat, adding fillers according to the recipe, injecting minced meat;
- b. obtaining minced meat from meat of the first category, sufficient heat treatment, spraying;
- c. grinding minced meat and adding table salt, nitrates, calcium casein, skim milk;

- d. creating optimal sanitary and hygienic conditions at workplaces, using only food ice for cooling minced meat.
- e. a high degree of grinding of minced meat made from conditionally suitable meat, the addition of cold water and Boin's blood, insufficient heat treatment.

- 2. Sanitary assessment of flour quality is carried out according to organoleptic and physicochemical indicators. Organoleptic indicators include (please select incorrect answer):
- a. color, which depends on the type of grain, type of flour and the presence of impurities;
- b. a smell that should not be musty and have any other extraneous shades;
- c. taste, which can change as a result of admixture of seeds of bitter weeds in the flour;
- d. crunching on the teeth when chewing flour, due to the presence of mineral impurities and sand;
- e. consistency that varies depending on the type of flour.

- 3. Operator work is characterized by:
- a. stress of memory, attention, increased neuro-emotional stress;

b. prolonged focused attention, perseverance, increased neuro-emotional stress, large memory capacity; c. lack of information, high responsibility in decision-making; d. a large volume of incoming information, an increase in social significance and personal responsibility for decision-making, an irregular load; duration of concentrated observation, responsibility, high neuro-emotional stress. Please provide only one correct answer 4. Studying and identifying the requirements of the profession to a person for the purpose of professional selection, career guidance, industrial training, is engaged in: a. physiology of labor; b. labor psychology; c. occupational health; d. production ergonomics; e. engineering psychology.

- 5. The general pattern of changes in the degree of influence of biological and social factors on the neuropsychic development of a child is:
- a. with age, the influence of biological factors decreases and the influence of social factors increases;
- b. with age, the influence of biological factors increases and the influence of social factors decreases;
- c. with age, the influence of both biological and social factors increases;
- d. with age, the influence of both biological and social factors decreases. e. does not change

- 6. Pathological affection of children and adolescents is calculated by:
- a. registration of all cases of diseases per year per 100 served children and adolescents
- b. identifying the number of children and adolescents who have been ill 4 times or more during the year
- c. by calculating the proportion of children and adolescents who have never been ill for a year, as a percentage of the number of those surveyed
- d. identifying the number of children and adolescents who were sick 3 times or more during the year;
- e. calculating the prevalence of chronic diseases, functional deviations as a percentage of the total number of those surveyed.

- 7. Duration of insolation for general health action:
- a. not more than 6 hours in summer, and not less than 3 hours in winter
- b. 2. at least 3 hours in any period of the year
- c. at least 3 hours in warm and hot climatic regions
- d. at least 3 hours in the period from 22 / III to 22 / IX in areas south of  $60 \circ N$
- e. at least 5 hours cold period, in hot climatic regions.

- 8. Designation of stationary observation posts:
- a. determination of peak periods of increasing concentration
- b. continuous registration of pollutants or regular sampling for subsequent analysis
- c. selection of maximum one-time and average daily samples
- d. full and partial sampling
- e. regular sampling of average daily samples

- 9. The epidemic focus is:
- the location of the source of infection with its surrounding territory within the possible mechanism of transmission of the pathogen
- the territory of the settlement, where the mechanism of transmission of the pathogen is possible
- the territory of the city or district where the mechanism of transmission of the pathogen is possible
- airspace where the transmission mechanism of the pathogen is possible

- 10. The epidemiological method is:
- statistical method for studying statistical patterns
- a specific set of techniques and methods that provide analysis and synthesis of information about the epidemic process
- epidemiological observations and mathematical modeling of the epidemic process
- experimental epidemiological studies

- 11. Transmission factors are:
- elements of the external environment that ensure the transfer of the pathogen from one organism to another
- biotic factors of the external environment, in which the accumulation of the pathogen occurs; abiotic factors of the external environment, in which the accumulation of the pathogen occurs
- transmission routes that ensure the transfer of the pathogen from one organism to another

# Please provide only one correct answer

- 12. What is the reason for the seasonal rise in brucellosis:
- the beginning of the hunting season
- massive loss of livestock
- the beginning of the season of harvesting vegetables
- lambing of farm animals

13. The destruction of unused opened ampoules containing the remains of live bacterial and viral vaccines is carried out by:

• disposal with household waste

• boiling, then disposal

• autoclaving with subsequent disposal

• pouring them with disinfectant solutions, then disposal

# Appendix 3

Typical variant of situational tasks (on the final state interdisciplinary exam)

**Kyrgyz State Medical Academy. Faculty of "Preventive Medicine"** 

STATE FINAL CERTIFICATION OF GRADUATES

#### A task

The grinder manually lifts a 6 kg metal workpiece from the floor and places it on the grinder platform 1.5 m from the floor. The polished workpiece is stored on the site, which is located at a distance of 3 m from the machine. Retention of the part during transfer from the machine to the site is 10 s. When lifting the workpiece from the floor and placing the polished part on the platform, the worker makes deep (more than 30 ° C) inclinations, the number of which reaches 1200 per shift.

In total, the grinder processes 600 workpieces per shift. Work near the machine is done while standing (up to 75% of the working time).

- 1. Calculate the physical dynamic load when performing grinding work.
- 2. To assess the working conditions of the grinder according to the indicators of the severity of the labor process according to RM 2.2.014-03.

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#### STATE FINAL CERTIFICATION OF GRADUATES

#### A task

In the thermal shop of a machine-building plant, hot processing of metal is carried out, aimed at changing its physicochemical structure and giving the metal a certain hardness, viscosity, electrical conductivity, etc. Metal hardening consists of the following operations: heating products in furnaces to a temperature of 800-900 ° C, rapid cooling in baths (water, oil), secondary heating to 250-300 ° C in baths filled with salt solutions, oils, and subsequent slow cooling ... The temperature of the surfaces of the furnaces is 80 ° C, the temperature of the surfaces of the loading windows is 450 ° C.

At the thermists' workplaces, the microclimate parameters in the summer were within the following limits: air temperature 28-37 ° C, relative humidity 45-56%, air velocity (due to air spraying) 1-1.5 m/s, infrared radiation intensity up to 1800- 2100 W/m2 (area of open skin surfaces - 15%), THC-index 26 ° C. The work belongs to the category of moderate severity.

1. Name the instruments used for the measurement.

2. Determine the acceptable parameters of the microclimate in the workplace, find

the class of working conditions.

3. How is heat exchange between workers carried out under these conditions?

**Kyrgyz State Medical Academy.** 

Faculty of "Preventive Medicine"

STATE FINAL CERTIFICATION OF GRADUATES

A task

Welding works are carried out in the assembly shop at the machine-building plant. At the welders' workplace, the dustiness of the air was determined. The dust concentration in the workplace is 5 mg/m3. The chemical composition of the dust is 6.5% manganese oxide and 4.6% silicon dioxide.

1. What occupational diseases can occur in workers in this profession?

2. Give the characterization of dust.

3. Indicate preventive measures.

Faculty of "Preventive Medicine"

STATE FINAL CERTIFICATION OF GRADUATES

A task

In order to assess the conditions of artificial lighting in classrooms, the determination of its level at workplaces using a luxmeter was checked. The room is illuminated by a 150 watt incandescent lamp. In this case, the following results were obtained: at the workplace located directly under the source of 200 lux., In the far corner -30 lux.

- 1. Your conclusion on the compliance of the lighting conditions with the established standards Hygienic requirements for natural, artificial and combined lighting of residential and public buildings."
- 2. The uniformity of illumination meets the hygienic requirements.

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Faculty of "Preventive Medicine"

#### STATE FINAL CERTIFICATION OF GRADUATES

### A task

As a precautionary sanitary inspection, evaluate the student satchel of the following dimensions: length - 34 cm, height of the front wall - 25 cm, width - 10 cm, length of the shoulder strap - 65 cm, weight - 600 g.

The material used to make the top of the backpack is lightweight, durable, with a water-repellent coating, frost-resistant and easy to clean, gray-dark in color. The satchel is made with a lining. The material used as a lining is satin.

1. conclusion and recommendations for the use of the knapsack.
Kyrgyz State Medical Academy.
Faculty of "Preventive Medicine"
STATE FINAL CERTIFICATION OF GRADUATES
A task
When examining and evaluating the lighting of the kindergarten group room, there were
data received:
1. Floor area - 56 m2.
2. The glass area of one window is 3.2 m2.
3. The distance from the child's table to the window is 3 m.
4. The height of the shaded part of the window by the opposing house is 0.2 m
5. The distance from the ceiling to the upper edge of the window is 0.3 m.
6. Window height - 2 m.
1. What data is needed to determine light angles?

2.Determine light angles and rate?

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#### STATE FINAL CERTIFICATION OF GRADUATES

#### A task

In the hall for music and gymnastics classes, a TV with a screen size of 69 cm diagonally is installed. The installation height is 1.5 m. At the time of the examination, TV programs were watched simultaneously by children of 3 groups (75 children). The guys were at a distance of 2 to 6 m from the TV set. The chairs were literally facing each other. The children were sitting without taking into account their height. The windows were covered with light curtains, there was no sun glitter on the screen.

1. Your conclusion and recommendations.

Kyrgyz State Medical Academy. I.K. Akhunbaeva

Faculty of "Preventive Medicine"

#### STATE FINAL CERTIFICATION OF GRADUATES

#### A task

According to the results of theoretical calculation and chemical analysis of the daily ration of the boarding school for the elderly, it contains:

Nutrients	By layout	By	%	Physiological norm
		analysis	Completion	
Protein	80	60		
Fats	90	58		

Carbohydrates	300	425	
Calorie			
content			

- 1. Calculate the calorie content and the percentage of completion of the layout menu.
- 2. Give a conclusion on the results of laboratory tests for compliance with physiological nutritional standards, in order to rationalize their nutrition.

**Kyrgyz State Medical Academy Faculty of "Preventive Medicine"** 

#### STATE FINAL CERTIFICATION OF GRADUATES

#### A task

During the examination of a batch of bottled kumis, it was established:

Packing - a plastic bottle, on the paper label the inscription: "Healing national drink»; the shelf life is not indicated, there is no date of manufacture and storage conditions; appearance: the contents of the bottle have a slightly light sediment. Color - white with a yellowish tinge. The smell is slightly sour, characteristic of kumis. The taste is sour. Consistency - liquid homogeneous mass; analysis data indicate: B - 2.05 g., F - 1 g., U - 5 g, Calorie content - 48 kcal. Vitamin C - 9 mg per 100 g. product.

- 1. Give an opinion on the quality and safety of this drink.
- 2. For what indications is this drink used in medical nutrition?

# **Kyrgyz State Medical Academy Faculty of "Preventive Medicine"**

#### STATE FINAL CERTIFICATION OF GRADUATES

#### A task

Patient K., 45 years old, an entrepreneur complained of overweight, shortness of breath during exertion, and occasionally headaches. From the anamnesis it is known that up to 30 years old with a height of 172 cm weighed 74 kg, worked out in the gym 3 times a week. At the age of 30, he started doing business, stopped physical education and scored for

3 years 10 kg. The mass gradually reached 104 kg. The patient's mother is obese, type 2 diabetes, hypertension, coronary artery disease. Inspection data: correct physique, excess nutrition (height 172 cm, weight 104 kg, BMI 35.1 kg/m²) HELL - 130/80 mm Hg. Art. When examining the biochemical analysis - an increase in blood sugar levels up to 6.5 mmol / l, total cholesterol - up to 7.0 mmol / l, triglycerides - up to 4.7 mmol / l. During the glucose tolerance test, the diabetic type of the sugar curve was revealed.

Chemical composition of patient K's actual diet, and comparison with physiological norm and recommended therapeutic diet.

	Proteins,	Fat, g	Carbohydrates,	
	g		g	Energy value,
				kcal
Actual diet	144	165	322	3710
Physiological norm	81	81	324	2230

I group of labor intensity.

- 1. Assess the patient's status and make a diagnosis.
- 2. Estimate the actual diet;
- 3. Give recommendations on the patient's diet and lifestyle.

Kyrgyz State Medical Academy
Faculty of "Preventive Medicine"
STATE FINAL CERTIFICATION OF GRADUATES
A task

On the plane on the Delhi-Bishkek flight, 2 passengers fell ill. There was a suspicion of cholera, which was transferred to the "Manas" airport.

- 1. Schedule and organize activities for the passengers on this aircraft.
- 2. What document regulates measures to prevent the introduction and spread of cholera in the republic.
- 3. What measures should be taken to break the pathways of transmission of the pathogen.

Kyrgyz State Medical Academy. I.K. Akhunbaeva

Faculty of "Preventive Medicine"

#### STATE FINAL CERTIFICATION OF GRADUATES

## A task

Examination of the kindergarten for helminthiasis revealed that 7% of children were infected with enterobiasis and ascariasis. Pinworm eggs were found from washings of pots, hands of children and toys, ascaris eggs from washings of subungual spaces.

- 1. List the measures to eliminate the focus of helminthiasis in kindergarten.
- 2. Indicate the methods of examination for enterobiasis, the contingent to be examined, the volume and frequency.

# **Kyrgyz State Medical Academy**

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#### STATE FINAL CERTIFICATION OF GRADUATES

#### A task

A case of viral hepatitis B was registered in the operated patient in the surgical department. The patient was in the department for 24 days, during which he received blood transfusions twice, once native plasma. Donors are unknown. Three months ago I was undergoing treatment in the therapeutic department of the same hospital.

- 1. Determine where the patient was infected with viral hepatitis B.
- 2. Schedule measures to eliminate the focus of viral hepatitis in a surgical hospital.

Appendix 4 Typical version of exam tickets

(at the final interview of the state interdisciplinary exam)

**Kyrgyz State Medical Academy** 

Faculty of "Preventive Medicine"

STATE FINAL CERTIFICATION OF GRADUATES

Interdisciplinary interview

#### Examination ticket number 1

- 1. Comparative sanitary and hygienic assessment of the sources of centralized water supply in populated areas.
- 2. Nutritional and biological value of milk and dairy products. Their importance in therapeutic (dietary) and therapeutic and prophylactic nutrition.
- 3. Indicators of the health status of the child population. Factors shaping it. Methods for studying the state of health.
- 4. Physiological and hygienic aspects of the working posture. Ergonomic requirements for equipment, workplace and tools.
- 5. Diphtheria. Source of infection. Mechanism and ways of transmission. Manifestation of the epidemic process. Preventive and anti-epidemic measures. Immunoprophylaxis against diphtheria. Timing and scheme of immunization.

# **Kyrgyz State Medical Academy**

Faculty of "Preventive Medicine"

#### STATE FINAL CERTIFICATION OF GRADUATES

# Interdisciplinary interview

Examination ticket number 2

- 1. The value of the water factor in the infectious and non-infectious morbidity of the population. Prevention methods.
- 2. Hygienic requirements for the quality and safety of non-alcoholic and national drinks.
- 3. Morbidity in children and adolescents, its age structure. Main factors.

- 4. Personal protective equipment in the system of recreational activities, their classification. Basic hygiene requirements for PPE.
- 5. Whooping cough. Characteristics of the pathogen. Contagiousness of sources of infection. Mechanism and ways of transmission. Manifestation of the epidemic process. Preventive and anti-epidemic measures.

# **Kyrgyz State Medical Academy**

Faculty of "Preventive Medicine"

#### STATE FINAL CERTIFICATION OF GRADUATES

# **Interdisciplinary interview**

# Examination ticket number 3

- 1. Hygienic principles for standardizing the quality of drinking water. Organization of production control over the quality of drinking water.
- 2. Hygienic requirements for the quality and safety of fats and oils.
- 3. Goals and objectives of dynamic monitoring of the physical development and health of children and adolescents. Comprehensive health assessment.
- 4. Industrial microclimate. Principles of regulation depending on the nature of production and type of work. Measures to improve working conditions working in a heating and cooling microclimate.
- 5. Streptococcal infection. Characteristics of the pathogen. Source of infection. Mechanism and ways of transmission. Manifestation of the epidemic process. Preventive and anti-epidemic measures.

Tests' numbers	(	Number of sets	
1. History	Ky Test assignment	250 (on a flash drive)	
	in the attached of form of a link to prin		
2.The final interdisciplinary	2.1.	Test assignments with sample answers	2500
complex exam in the specialty	Computer testing	attached electronic media in the form of a link to	(on a flash drive)
		program and in print	
		option	
	2.2. Solving	Situational tasks with	250 (on a
	situational tasks	data from laboratory	flash
		and	drive)
		instrumental	
		research factors	
		environment by directions	
		specialties.	
		Provided regulatory	
		documents, technical regulations, etc	

	0 4 11 14	264: 41
	Occupational health,	264 in the
2.3 Verbal	food hygiene,	program and on
questioning of		the flash drive
tickets	communal hygiene,	
	hygiene of children	
	and adolescents,	
	epidemiology for	
	oral comprehensive	
	examination in the	
	specialty	