

Approved
at the meeting of the Department of Microbiology,
Virology and Immunology named after S.I.Gelberg
protocol No. 9 dated 10.01.2024

INSTITUTION OF EDUCATION
«GRODNO STATE MEDICAL UNIVERSITY»

**CRITERIA FOR ESTIMATION OF THE KNOWLEDGE ON
MICROBIOLOGY, VIROLOGY AND IMMUNOLOGY SHOWN BY
INTERNATIONAL STUDENTS DURING THE ORAL (OR WRITTEN)
ANSWER AT THE FINAL CONTROL**

At the final control of the knowledge (at the Examination) student answers according to the questions of the examination ticket. When evaluating a student knowledge, the Rating Mark of the student is calculated, according to the "Statements of the rating system for estimation of students' knowledge on the discipline" approved by the order of the Rector of GrSMU No. 196 dated the 2nd June, 2015.

Mark 10 (ten) is credited

for systematic, deep and complete knowledge of all sections of the Curriculum in Microbiology, Virology and Immunology, using information from other training courses and disciplines. Accurate use of scientific terminology, competent and logically correct formulation of answers to questions, the ability to make appropriate conclusions and summaries. The ability to transform the acquired knowledge consciously and quickly, when describing the theoretical and clinical-diagnostic aspects of Microbiology, Virology and Immunology. Complete and deep mastering the information based on main and additional literature recommended by the Curriculum in Microbiology, Virology and Immunology. Fluency in operation by clinical and diagnostic values of laboratory parameters. Creative self-dependent work in practical and laboratory classes, active creative participation in group discussions, and a high level of intelligence shown during the solving study tasks. Fluency in clinical and diagnostic indexes of microbiological, immunological and molecular biological diagnostic methods. Creative independent work in the Student Scientific Society, participation in student conferences and scientific presentations.

Mark 9 (nine) is credited

for systematic, deep and complete knowledge of all sections of the Curriculum in Microbiology, Virology and Immunology. Accurate use of scientific terminology, competent and logically correct formulation of answers to questions, the ability to make

appropriate conclusions and summaries. Complete mastering the information based on main and additional literature recommended by the Curriculum in Microbiology, Virology and Immunology. Fluency in operation by clinical and diagnostic values of laboratory parameters. Systematic, active self-dependent work in practical and laboratory classes, creative participation in group discussions, and a high level of intelligence shown during the solving study tasks.

Mark 8 (eight) is credited

for systematic and complete knowledge of all sections of the Curriculum in Microbiology, Virology and Immunology. Use of scientific terminology, competent and logically correct formulation of answers to questions. Free use of drawing and schemes to illustrate the answer. Mastering the information based on main and additional literature recommended by the Curriculum in Microbiology, Virology and Immunology. Good knowledge of the clinical and diagnostic values of the results of microbiological, immunological and molecular biological diagnostic methods. Active self-dependent work in practical and laboratory classes, systematic participation in group discussions, and a good level of intelligence shown during the solving study tasks.

Mark 7 (seven) is credited

for systematic and complete knowledge of all sections of the Curriculum in Microbiology, Virology and Immunology. Ability to use the scientific terminology, competent, logically correct formulation of answers to questions, use of drawing to illustrate the answers. Sufficiently complete mastering the material of the main and additional literature recommended by the Curriculum in Microbiology, Virology and Immunology. Knowledge of the clinical and diagnostic values of the results of microbiological, immunological and molecular biological diagnostic methods. Independent work in practical and laboratory classes, participation in group discussions, and good level of intelligence shown during the solving study tasks.

Mark 6 (six) is credited

for sufficiently complete and systematic knowledge in the scope of the Curriculum in Microbiology, Virology and Immunology. Ability to use the necessary scientific terminology, logically correct formulation of answers to questions, use of drawings and schemes to illustrate the answer. Mastering the material of the basic literature recommended by the Curriculum of Higher Education Institutions in Microbiology, Virology and Immunology. Knowledge of the clinical and diagnostic values of the results of microbiological, immunological and molecular biological diagnostic methods. Independent work in practical, laboratory classes, periodic participation in group discussions, a good level of culture of task execution.

Mark 5 (five) is credited

for basic knowledge within the scope of the Curriculum in Microbiology, Virology and Immunology. The ability to use scientific terminology and logically correct formulate the answers to questions. Mastering the material of the basic literature recommended by the Curriculum of Higher Education Institutions in Microbiology, Virology and Immunology. Knowledge of the clinical and diagnostic values of the results of microbiological, immunological and molecular biological diagnostic methods. A sufficient level of intelligence shown during the solving study tasks.

Mark 4 (four) is credited

for knowledge within the scope of Educational Standard of Higher Education in the specialty 79 01 04 - Medical Affair. Use of scientific terminology and explanation of drawings without significant mistakes, rather logical formulation of answers to questions. Satisfactory mastering the ground material of the literature recommended by the Curriculum in Microbiology, Virology and Immunology. Understanding the clinical and diagnostic values of the results of microbiological, immunological and molecular biological diagnostic methods. Ability to master practical skills under the guidance of a teacher during practical laboratory classes, and the acceptable level of intelligence shown during the solving study tasks.

Mark 3 (three) is not credited

for insufficient volume of knowledge within scope of Educational Standard of Higher Education in the specialty 79 01 04 - Medical Affair. Poor knowledge of scientific terminology, formulation of answers to questions with significant logical mistakes. Poor knowledge of scientific terminology and of the material of the main literature recommended by the Curriculum in Microbiology, Virology and Immunology. Absence of the knowledge of the practical skills and of the basic study questions. Passivity shown in practical laboratory classes.

Mark 2 (two) is not credited

for fragmentary volume of knowledge within scope of Educational Standard of Higher Education in the specialty 79 01 04 - Medical Affair. Inability to use the scientific terminology in Microbiology, Virology and Immunology, making serious logical mistakes when answering questions. Passivity shown in practical laboratory classes.

Mark 1 (one) is not credited

for the complete lack of knowledge on the subject within scope of Educational Standard of Higher Education in the specialty 79 01 04 - Medical Affair, the refusal of a student to

answer, absence of a student during the final control of the knowledge without a valid reason.

CRITERIA FOR EVALUATION OF THE KNOWLEDGE SHOWN BY STUDENTS DURING ANSWERING THE COMPUTER BASED MCQs

- 24% or less of correct answers – 1 point – not credited;
- 25 – 34% of correct answers – 2 points – not credited;
- 35 – 44% of correct answers – 3 points – not credited;
- 45 – 54% of correct answers – 4 points – credited;
- 55 – 64% of correct answers – 5 points;
- 65 – 74% of correct answers – 6 points;
- 75 – 82% of correct answers – 7 points;
- 83 – 89% of correct answers – 8 points;
- 90 – 95% of correct answers – 9 points;
- 96 - 100% of correct answers – 10 points.

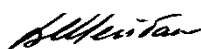
For the intermediate control of knowledge during the mini-exam, student is proposed to answer 20 MCQ questions according to the themes of the section, during the final control, at the end of the academic year, the number of the MCQ questions is increased up to 40.

CRITERIA FOR ASSESSEMENT OF PRACTICAL SKILLS AND ABILITIES IN MICROBIOLOGY, VIROLOGY AND IMMUNOLOGY

When studying the subject of Microbiology, Virology and Immunology, every student has to master the following practical skills:

- 1) safe handling the biological material and live cultures of microorganisms; accurate measurement of the volumes of solutions and biological fluids using pipettes (including automatic ones);
- 2) the technique of making the microbiological preparations;
- 3) the algorithms of staining the fixed smears using simple staining, the Gram staining, Ziehl-Neelsen and Neisser staining techniques;
- 4) the skills of operating the light immersion microscopy and giving right description of the results;
- 5) the technique of primary seeding the biological material on the solid nutrient media to isolate a pure culture of bacteria;
- 6) the technique of reseeded the pure culture on nutrient media for accumulation of the biomass of bacterial pure culture;
- 7) to evaluate visually the character of bacterial growth on solid and in liquid nutrient media;
- 8) to determine the sensitivity of bacteria to antibiotics applying the disc diffusion technique;
- 9) to evaluate the indexes of the immunogram;
- 10) to know the algorithm of setting up the serological tests;
- 11) to be able to evaluate the results of microbiological, immunological and molecular biological studies.

Head of the Department of Microbiology,
Virology and Immunology named
after S. I. Gelberg, Professor



V. M. Sheibak

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CRITERIA FOR EVALUATION OF THE KNOWLEDGE SHOWN BY STUDENTS AT THE INTERMEDIATE CONTROL

At the intermediate control (mini-exam) the mark is estimated only according to the answer of a student, the average value of the marks scored during the laboratory classes on the corresponding section (sub-discipline) is not taken into account.

Mastering the practical skill is evaluated in a similar way as it is done at every laboratory lesson.

Retake of the mini-exam is allowed only once and only during the period of study time until that week, when the next mini-exam is planned. Only the teacher of the corresponding group conducts retake of the mini-exam. The result of retake is accounted as the final mark for the section.

Mark 10 (ten) is credited

for systematic, deep and complete knowledge of systematics and nomenclature of microorganisms; of morphology, genetics antigenic structure, physiology and ecology of bacteria, viruses, fungi, protozoans using the study material of the Curriculum on Microbiology, Virology and Immunology and other related disciplines. Accurate use of scientific terminology, competent and logically correct formulation of answers to questions, the ability to make appropriate conclusions and summaries. The ability to transform the acquired knowledge in the related disciplines consciously and quickly, when describing the theoretical and clinical-diagnostic aspects of Microbiology, Virology and Immunology. Complete and deep mastering the information based on main and additional literature recommended by the Curriculum in Microbiology, Virology and Immunology. Fluency in operation by clinical and diagnostic values of laboratory parameters.

Mark 9 (nine) is credited

for systematic, deep and complete knowledge of all sections of the Curriculum in Microbiology, Virology and Immunology. Accurate use of scientific terminology, competent and logically correct formulation of answers to questions, the ability to make appropriate conclusions and summaries. Relatively complete mastering the information based on main and additional literature recommended by the Curriculum in Microbiology, Virology and Immunology. Fluency in operation by clinical and diagnostic values of laboratory parameters obtained by microbiological, immunological and molecular-biological tests.

Mark 8 (eight) is credited

for systematic and complete knowledge of all sections of the Curriculum in Microbiology, Virology and Immunology. Use of scientific terminology, competent and logically correct formulation of answers to questions. Free use of drawing and schemes to illustrate the answer. Mastering the information based on main and additional literature recommended by the Curriculum in Microbiology, Virology and Immunology. Good knowledge of the clinical and diagnostic values of the results of microbiological, immunological and molecular biological diagnostic tests.

Mark 7 (seven) is credited

for systematic and complete knowledge of all sections of the Curriculum in Microbiology, Virology and Immunology. Knowledge of the scientific terminology, competent, logically correct formulation of answers to questions, use of schemes and drawing to illustrate the answers. Sufficiently complete mastering the material of the main and additional literature recommended by the Curriculum in Microbiology, Virology and Immunology. Understanding the microbiological, immunological and molecular biological diagnostic test.

Mark 6 (six) is credited

for sufficiently complete and systematic knowledge in the scope of the Curriculum in Microbiology, Virology and Immunology. Ability to use the necessary scientific terminology, correct formulation of answers to questions. Mastering the material of the basic literature recommended by the Curriculum of Higher Education Institutions in Microbiology, Virology and Immunology. Basic understanding the values of the results of clinical diagnostic tests.

Mark 5 (five) is credited

for sufficiently basic knowledge within the scope of the Curriculum in Microbiology, Virology and Immunology. Satisfactory mastering the material of the basic literature recommended by the Curriculum of Higher Education Institutions in Microbiology, Virology and Immunology. Basic understanding the results of microbiological, immunological and molecular biological diagnostic test.

Mark 4 (four) is credited

for partial knowledge within the scope of Educational Standard of Higher Education in the specialty 79 01 04 - Medical Affairs. Fragmentary use of scientific terminology Satisfactory mastering the ground material of the literature recommended by the Curriculum in Microbiology, Virology and Immunology. Basic understanding the clinical

and diagnostic values of the results of microbiological, immunological and molecular biological diagnostic tests.

Mark 3 (three) is not credited

for fragmentary knowledge within scope of Educational Standard of Higher Education in the specialty 79 01 04 - Medical Affair. Absence of ability to use the microbiological, immunological and virological scientific terminology; formulation of answers to questions with significant mistakes. Absence of understanding the clinical and diagnostic values of the results of microbiological and immunological clinical diagnostic tests.

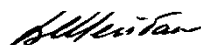
Mark 2 (two) is not credited

for fragmentary volume of knowledge within scope of Educational Standard of Higher Education in the specialty 79 01 04 - Medical Affair. Inability to use the scientific terminology in Microbiology, Virology and Immunology; making serious logical mistakes when answering questions. Absence of knowledge of morphology, genetics, antigenic structure, physiology and ecology of bacteria, viruses, fungi and protozoans. Complete absence of knowledge of microbiological, immunological and molecular biological diagnostic tests.

Mark 1 (one) is not credited

for the complete lack of knowledge on the subject within scope of Educational Standard of Higher Education in the specialty 79 01 04 - Medical Affair, the refusal of a student to answer, absence of a student during the intermediate control of the knowledge without a valid reason.

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