List of exam questions by discipline: "Biology" for students of the first year in the specialty "General Medicine" of the 2022 / 2023 academic year

1. The history of the emergence and development of biology. The Ionian, Athenian, Alexandrian, and Roman schools of natural science. Renaissance. The main representatives and their works. (UC1, GPC-5)
2. The substrate of life and the levels of organization of life. Properties of the living. (UC-1, GPC-5)
3. The concept of bio- and geohelminths. The concept of natural focality. (UC-1, GPC-5)
4. Mechanisms of transmission and ways of penetration of the parasite into the host organism. (UC-1, GPC-5)
5. Characteristics of the interaction of the "parasite-host" system. (UC-1, GPC-5)
6. Dysenteric amoeba. sistematic position, morphology, development cycle. Laboratory diagnostics, prevention. (UC-1, GPC-5)
7. Trypanosoma. Systematic position, morphology, development cycle. Laboratory diagnostics, prevention. (UC-1, GPC-5)
8. Giardia. Systematic position, morphology, development cycle. Laboratory diagnostics, prevention. (UC-1, GPC-5)
9. Visceral and dermatotropic leishmaniasis. Systematic position, morphology, development cycle. Laboratory diagnostics, prevention. (UC-1, GPC-5)
10. Trichomonas (urogenital and intestinal). Systematic position, cycle of development. Laboratory diagnostics, prevention. (UC-1, GPC-5)
11. Toxoplasma. Systematic position, morphology, development cycle, ways of infection. Substantiation of methods of laboratory diagnostics. (UC-1, GPC-5)
12. Malarial Plasmodium. Systematic position, morphology, development cycle. (UC-1, GPC-5)
13. Balantidium. Systematic position, morphology, development cycle. Laboratory diagnostics, prevention. (UC-1, GPC-5)
14. Hepatic flUCe. Systematic position, morphology, development cycle. Laboratory diagnostics, prevention. (UC-1, GPC-5)
15. Pulmonary flUCe. Systematic position, morphology, development cycle. Laboratory diagnostics, prevention. (UC-1, GPC-5)
16. Schistosomes. Systematic position, morphology, development cycle. Substantiation of laboratory diagnostic methods. Ways of infection, prevention. (UC-1, GPC-5)
17. Cat flUCe. Systematic position, morphology, development cycle. Laboratory diagnostics, prevention. (UC-1, GPC-5)
18. Lanceolate flUCe. Systematic position, morphology, developmental cycle. Laboratory diagnostics, prevention. (UC-1, GPC-5)
19. Bovine and pork tapeworm. Systematic position, morphology, development cycle. Laboratory diagnostics, prevention. (UC-1, GPC-5)
20. The ribbon is wide. Systematic position, morphology, development cycle. Laboratory diagnostics, prevention. (UC-1, GPC-5)
21. Dwarf tapeworm. Systematic position, morphology, development cycle. Laboratory diagnostics, prevention. (UC-1, GPC-5)
22. Echinococcus. Systematic position, morphology, development cycle. Laboratory diagnostics, prevention. (UC-1, GPC-5)
23. Ascaris. Systematic position, morphology, developmental cycle. Laboratory diagnostics, prevention. (UC-1, GPC-5)
24. Whipworm. Systematic position, morphology, developmental cycle. Laboratory diagnostics, prevention. (UC-1, GPC-5)
25. rishta. sistematic position, morphology, developmental cycle. Laboratory diagnosis and prevention. (UC-1, GPC-5)
26. Pinworm. Systematic position, morphology, development cycle. Laboratory diagnostics,

prevention. (UC-1, GPC-5)
27. Hookworm. Systematic position, morphology, developmental cycle. Laboratory diagnostics, prevention. (UC-1, GPC-5)
28. Trichinella. sistematic position, morphology, development cycle. Laboratory diagnostics, prevention. (UC-1, GPC-5)
29. Order Ticks. Family Ixodes (taiga, ticks dermacentory) and Argaz (village) Systematic position, development cycle, medical significance. (UC-1, GPC-5)
30. Order Ticks. Family Gamazaceae, Erel, Scabies. Systematic position, cycle of development, medical significance. (UC-1, GPC-5)
31. The order Diptera. Flies: indoor, volfartova, tse-tse. Developmental cycles. Medical significance. (UC-1, GPC-5)
32. Lice, fleas, bedbugs. Systematic position. Medical significance. (UC-1, GPC-5)
33. Mosquitoes. Systematic position, developmental cycle, medical significance. Differences between common and malarial mosquitoes. (UC-1, GPC-5)
34. Evolution of forms of reproduction. Types of asexual and sexual reproduction. (UC-1, GPC-5)
35. Gametogenesis. Formation of female and male germ cells. (UC-1, GPC-5)
36. Embryogenesis. Germ leaf derivatives. Germinal membranes. (UC-1, GPC-5)
37. Post-embryonic development. Growth and development. Age periodization of the postnatal stage of development of the human body. (UC-1, GPC-5)
38. The role of pituitary and epiphysis hormones in human life. (UC-1, GPC-5)
39. Hormones of the adrenal glands, thyroid and pancreas. Their influence on the growth and development of the body. (UC-1, GPC-5)
40. Hypotheses of aging of the body. Signs of aging. (UC-1, GPC-5)
41. Stress. Causes and mechanisms of development of stress - reactions. Damaging effects of stress. (UC-1, GPC-5)
42. The concept of homeostasis and regeneration. Physiological and reparative regeneration. (UC1, GPC-5)
43. History of the development of genetics. The main directions of human genetics. Issues of social genetics. (UC-1, GPC-5)
44. Methods of studying human heredity. (UC-1, GPC-5)
45. Deviations from inheritance according to Mendel's laws (incomplete dominance, multiple allelysm, overdomination, coding, allele exclusion, lethal genes). (UC-1, GPC-5)
46. interaction of non-allelic genes: complementarity, epistasis, polymeria. (UC-1, GPC-5)
47. Inheritance and formation of sex and traits linked to sex chromosomes. (UC-1, GPC-5)
48. Inheritance of blood groups according to the systems AB0, MN, Rhesus. The concept of Rh - conflict. (UC-1, GPC-5)
49. Regulation of protein synthesis in prokaryotes and eUCaryotes. (UC-1, GPC-5)
50. Genetic engineering. Tasks, methods and possibilities of genetic engineering. (UC-1, GPC-5)
51. Mutational variability. Concept and classification of mutagens. Types of mutations. (UC-1, GPC-5)
52. Chromosomal diseases and syndromes associated with the non-separation of sex chromosomes and autosomes. (UC-1, GPC-5)
53. Inside - and interchromosomal mutations. Examples. Combinatorial variability. (UC-1, GPC-5)
54. Modificational (phenotypic) variability. The rate of reaction. (UC-1, GPC-5)
55. The concept of gene diseases. Mechanisms of their occurrence. (UC-1, GPC-5)
56. Gene mutations associated with impaired metabolism of amino acids and lipids. (UC-1, GPC-5)
57. Genetic phenomena at the population level. The Hardy-Weinberg Act. (UC-1, GPC-5)
58. Evolution of the circulatory system. (UC-1, GPC-5)
59. Evolution of the genitourinary system. (UC-1, GPC-5)

60. Fossil ancestors of man and their characteristics. Anthropogenesis. The concept of races. (UC1, GPC-5)
61. The biosphere, its structure. The interaction of the "living" and the "inanimate". (UC-1, GPC-5)
62. Adaptation to the conditions of the tropics, highlands and the north. Ecological adaptation of indigenous peoples. (UC-1, GPC-5)
63. General concepts of poisonous animals and plants. (UC-1, GPC-5)
64. The concept of chronobiology. (UC-1, GPC-5)