

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

1. Substratum of life and levels of organization of life. properties of the living. (GPC-8, GPC-9)
2. The structure of the cell. main organelles. (GPC-8, GPC-9)
3. Parasitism and its criteria. Classification of parasites and their examples. (GPC-8, GPC-9)
4. The mechanism of action of the parasite on the host organism and its consequences. (GPC-8, GPC-9)
5. Transmissible and natural focal diseases. Examples. (GPC-8, GPC-9)
6. Mechanisms and ways of parasite penetration into the host organism. (GPC-8, GPC-9)
7. Relationships between organisms: symbiosis, antibiosis, neutralism. Forms of symbiosis and antibiosis. (GPC-8, GPC-9)
8. Dysenteric amoeba. Systematic position, morphology, development cycle. Laboratory diagnostics, prevention. (GPC-8, GPC-9)
9. Intestinal and oral amoeba. Their systematic position, morphology, development cycle. Laboratory diagnostics, prevention. (GPC-8, GPC-9)
10. Giardia. Systematic position, morphology, development cycle. Laboratory diagnostics, prevention. (GPC-8, GPC-9)
11. Trichomonas. Systematic position, morphology, development cycle. Laboratory diagnostics, prevention. (GPC-8, GPC-9)
12. Trypanosoma. Systematic position, morphology, development cycle. Laboratory diagnostics, prevention. (GPC-8, GPC-9)
13. Malarial Plasmodium. Systematic position, morphology, development cycle. Laboratory diagnostics, prevention. (GPC-8, GPC-9)
14. Toxoplasma. Systematic position, morphology, development cycle. Diagnostics, prevention. (GPC-8, GPC-9)
15. Liver fluke. Systematic position, morphology, development cycle. Laboratory diagnostics, prevention. (GPC-8, GPC-9)
16. Pulmonary fluke. Systematic position, morphology, development cycle. Laboratory diagnostics, prevention. (GPC-8, GPC-9)
17. Cat fluke. Systematic position, morphology, development cycle. Laboratory diagnostics, prevention. (GPC-8, GPC-9)
18. Lanceolate fluke. Systematic position, morphology, development cycle. Laboratory diagnostics, prevention. (GPC-8, GPC-9)
19. Pork tapeworm. Systematic position, morphology, development cycle. Laboratory diagnostics, prevention. The concept of cysticercosis. (GPC-8, GPC-9)
20. Bull tapeworm. Systematic position, morphology, development cycle. Laboratory diagnostics. (GPC-8, GPC-9)
21. Dwarf tapeworm. Systematic position, morphology, development cycle. Laboratory diagnostics, prevention. (GPC-8, GPC-9)
22. Echinococcus. Systematic position, morphology, development cycle. Diagnostics, prevention. (GPC-8, GPC-9)
23. Ascaris human. Systematic position, morphology, development cycle. Laboratory diagnostics, prevention. (GPC-8, GPC-9)
24. Pinworm for children. Systematic position, morphology, development cycle. Laboratory diagnostics, prevention. (GPC-8, GPC-9)
25. Trichinella. Systematic position, morphology, development cycle. Laboratory diagnostics, prevention. (GPC-8, GPC-9)
26. Ixodid ticks. systematic position. Morphology, development, medical significance). (GPC-8, GPC-9)
27. Argas ticks. systematic position. Morphology, development, medical significance. (GPC-8, GPC-9)

28. Acne gland and scabies itch. Their systematic position, morphology, development, medical significance. (GPC-8, GPC-9)
29. Mosquitoes. systematic position. Morphology, development, medical significance. Differences between common and malarial mosquitoes. (GPC-8, GPC-9)
30. Lice and fleas. systematic position. Morphology, development, medical significance. (GPC-8, GPC-9)
31. Methods of asexual and sexual reproduction of organisms. Examples. (GPC-8, GPC-9)
32. Parthenogenesis and sexual process. Similarities and differences between the sexual process of prokaryotes and eukaryotes. (GPC-8, GPC-9)
33. Sexual dimorphism and its hormonal conditioning. The role of sexual selection in fixing secondary sexual characteristics. (GPC-8, GPC-9)
34. Oogenesis. The structure of female germ cells. (GPC-8, GPC-9)
35. Spermatogenesis. The structure of male germ cells. (GPC-8, GPC-9)
36. Fertilization. Phases and forms of fertilization. Concept of IVF. (GPC-8, GPC-9)
37. Embryogenesis. Stages and methods of crushing. (GPC-8, GPC-9)
38. Gastrulation. Methods of gastrulation. (GPC-8, GPC-9)
39. Organogenesis. The concept of axial organs and the sequence of their laying. (GPC-8, GPC-9)
40. Histogenesis. Derivatives of ectoderm, endoderm, mesoderm and mesenchyme. (GPC-8, GPC-9)
41. Dangerous periods of embryogenesis. The concept of teratogenic factors and their classification. (GPC-8, GPC-9)
42. Methods of postembryonic development and their examples. Postnatal period of human development. (GPC-8, GPC-9)
43. Hormones of the endocrine glands, affecting the growth and development of the body. (GPC-8, GPC-9)
44. Stress. phases of its development. Hormones stress - reactions. (GPC-8, GPC-9)
45. Hypotheses of body aging. (GPC-8, GPC-9)
46. Evolution of the dentition. (GPC-8, GPC-9)
47. Interaction of allelic genes. (GPC-8, GPC-9)
48. Interaction of non-allelic genes. Complementarity and Its Examples. (GPC-8, GPC-9)
49. Epistasis: dominant and recessive. Examples. (GPC-8, GPC-9)
50. Polymeria: cumulative and non-cumulative. Examples. (GPC-8, GPC-9)
51. Pleiotropy. Penetrance. Examples. (GPC-8, GPC-9)
52. The effect of position, genocopy, phenocopy and their significance in medicine. (GPC-8, GPC-9)
53. Mechanisms of inheritance of sex. The concept of homo- and heterogametic sex. Sex-linked traits. Examples. (GPC-8, GPC-9)
54. Systems for determining blood groups of the human body. The concept of the Rh factor and Rh conflict. (GPC-8, GPC-9)
55. Chromosomal diseases associated with non-disjunction of sex chromosomes. (GPC-8, GPC-9)
56. Chromosomal diseases associated with non-disjunction of autosomes. Causes and consequences of their occurrence. (GPC-8, GPC-9)
57. Genetic diseases. Their classification, causes and consequences. (GPC-8, GPC-9)
58. Phenotypic variability. reaction rate. Variation series and variation curve. The average value of the variation series. (GPC-8, GPC-9)
59. Genotypic variability. Forms, Causes and Effects. (GPC-8, GPC-9)
60. Populations. Properties and criteria of populations. ideal populations. Hardy–Weinberg law. (GPC-8, GPC-9)
61. Environmental factors. Adaptations of organisms to environmental factors. Ecological groups of people and their adaptive features. Laws of Allen, Gloger and Bergman. (GPC-8, GPC-9)

62. Chronobiology. The concept of synchronization and desynchronization of rhythms. The role of external and internal factors in maintaining daily and seasonal biorhythms of the human body. (GPC-8, GPC-9)
63. The main stages of anthropogenesis. The most ancient, ancient and modern people and their ecological and homophysiological characteristics. (GPC-8, GPC-9)
64. Hypotheses of the origin of man. Similarities and differences between humans and animals. (GPC-8, GPC-9)