

**SYLLABUS OF QUESTIONS FOR EXAMINATION
GENERAL MICROBIOLOGY
DENTISTRY**

1. Characterization of procaryotic cells, their shape, size, and arrangement. Spores.
2. Internal structure in bacteria (nucleoid, plasma, cell membrane, mesosomes). Cell wall of bacteria. Surface structures of bacteria.
3. Morphology and multiplication of viruses.
4. Chemical structure of microorganisms. Enzymes in bacteria.
5. Reproduction of bacteria.
6. Genotype and phenotype. Mutation of bacteria. Gene transfer. Conjugation, transformation, transduction. Lysogenic conversion.
7. Pathogenicity and virulence of microorganisms.
8. Characterization of bacterial exotoxins and endotoxins.
9. Factors of bacterial invasiveness.
10. Decontamination. Sterilization. Disinfection.
11. Antibiotics. Effects, resistance, tests of susceptibility, danger of antibiotherapy.
12. Penicillins.
13. Cephalosporins and carbapenems.
14. Chloramphenicol and tetracyclines.
15. Macrolides and lincosamides.
16. Aminoglycosides and glycopeptides.
17. Quinolones and fluoroquinolones.
18. Antifungal agents.
19. Microorganisms in healthy humans. Endogenous and nosocomial infections.
20. Humoral mechanisms of immunity. Cellular mechanisms of immunity.
21. Antigens and antibodies. Serologic reactions.
22. Active and passive immunization. Vaccines.
23. Classification of viruses. Virus-host cell interactions. Antiviral agents.

**SYLLABUS OF QUESTIONS FOR EXAMINATION
SPECIAL MICROBIOLOGY
DENTISTRY**

1. Staphylococcus.
2. Streptococcus pneumoniae. Streptococcus pyogenes.
3. Viridans streptococci and Enterococcus.
4. Neisseria.
5. Enterobacteriaceae.
6. Pseudomonas. Bacillus.
7. Vibrio. Haemophilus.
8. Bacteroides and Fusobacterium.
9. Clostridium perfringens. Clostridium tetani.
10. Clostridium botulinum and Clostridium difficile.
11. Corynebacterium.
12. Actinomyces and Nocardia.
13. Mycobacterium.
14. Treponema. Borrelia. Leptospira.
15. Mycoplasma.
16. Chlamydia and Chlamydophila.
17. Candida. Superficial (cutaneous) mycoses.
18. Herpes simplex virus. Varicella zoster virus.
19. Epstein - Barr virus. Cytomegalovirus.
20. Hepatitis A virus. Hepatitis B virus.
21. Influenza viruses.
22. Enteroviruses.
23. Retroviruses.

**SYLLABUS OF QUESTIONS FOR EXAMINATION
PRACTICAL MICROBIOLOGY
DENTISTRY**

1. Collection and transport of clinical materials to microbiological examinations.
2. Light and dark field microscopy.
3. Gram staining.
4. Acid-fast staining.
5. Cultivation of aerobic microorganisms – general principles.
6. Cultivation of aerobic microorganisms – inoculation of clinical material.
7. Cultivation of anaerobic microorganisms.
8. Disk susceptibility test, combinations of antimicrobial drugs.
9. Standard dilution micromethod - MIC method.
10. Agglutination.
11. Complement fixation test.
12. ELISA (enzyme-linked immunoassay).
13. Serodiagnosis of lues (VDRL, TPHA, TPIT).
14. Differential diagnosis of Gram-negative rods.
15. Differential diagnosis of staphylococci.
16. Differential diagnosis of streptococci and enterococci.
17. Differential diagnosis of corynebacteria.
18. Differential diagnosis of haemophili.
19. Differential diagnosis of neisseriae.
20. Differential diagnosis of anaerobic bacteria.
21. Differential diagnosis of yeasts (assimilation and fermentation profiles).
22. Evaluation of mould cultures.
23. Serodiagnosis of influenza.