

**2018/2019**  
**FINAL EXAMINATION QUESTIONS**  
**General and oral microbiology**  
**(Faculty of Dentistry)**

I.

1. History of medical microbiology. Classification of the microbes. The structure, the size and the shape of bacterial cell.
2. Bacterial metabolism. The growth and reproduction of bacteria.
3. Bacterial genetics. Mode of gene transfers.
4. Microscopic examination of bacteria. Staining methods used in bacteriology.
5. Sterilization
6. Disinfection
7. Antimicrobial drugs that inhibit the nucleic acid synthesis and alter the membrane function.
8. Antimicrobial drugs that inhibit the cell wall synthesis
9. Antimicrobial drugs that inhibit the protein synthesis
10. Antibiotics used in combination.
11. The side effect of the antibiotics. The risk of antibiotic usage.
12. Antibiotic sensitivity tests in laboratory. Chemoprophylaxis. Antibacterial therapy.
13. Possible mechanisms of resistance against antibiotics
14. Pathogenicity and virulence. The measurement of the virulence
15. Toxic virulence factors of bacteria
16. Non-toxic virulence factors of bacteria.
17. Active immunisation. Obligatory vaccines.
18. Passive immunisation. The risk of the passive immunisation.
19. Antigen-antibody reactions used in laboratory.
20. Diagnosis of the infectious diseases.
21. Non-obligatory vaccines used against bacteria and viruses.
22. Characterization and classification of human pathogenic fungi.
23. Microbiological diagnosis of diseases caused by fungi.
24. Dermatomycosis (causative agents and diseases).
25. Systemic and oppurtunistic mycosis.
26. Mycotic infections of the oral cavity
27. Characterisation of the protozoa. Antiprotozoal drugs.
28. Leishmania
29. Toxoplasma
30. Plasmodia.

## II.

1. Staphylococcus genus
2. Streptococcus pyogenes.
3. Streptococci in the oral cavity. *S. mutans* and caries.
4. Streptococcus pneumoniae, Enterococcus faecalis, *S. agalactiae*, Peptostreptococcus.
5. Neisseria. Veillonella. Moraxella. Acinetobacter
6. Actinomyces, Bifidobacterium, Eubacterium.
7. Escherichia coli.
8. Klebsiella, Enterobacter, Serratia.
9. Salmonella and Shigella
10. Proteus, Pseudomonas
11. Campylobacter, Helicobacter. Vibrio
12. Corynebacterium. Listeria monocytogenes
13. Lactobacillus genus. Probiotics
14. Mycobacterium tuberculosis and bovis
15. Atypical mycobacteria, Mycobacterium leprae
16. Haemophilus, Legionella, Bordetella
17. Brucella and Francisella genus
18. Yersinia and Pasteurella genus.
19. Bacillus genus
20. Clostridia causing gas gangrene. *C. difficile*.
21. Clostridium tetani and Clostridium botulinum.
22. Treponema
23. Borrelia, Leptospira
24. Mycoplasmas, Chlamydiae.
25. Rickettsia
26. Bacteroides. Fusobacterium. Porphyromonas. Prevotella. Actinobacillus
27. Periodontal diseases caused by bacteria
28. Entamoeba histolytica. *E. gingivalis*, Trichomonas vaginalis, *T. tenax*
29. *Fasciola hepatica*, *Tenia saginata*, *T. solium*, *Echinococcus granulosus*
30. *Enterobius vermicularis*, *Ascaris lumbricoides*, *Toxocara canis*, *Trichinella spiralis*).

### III.

1. Classification of viruses. Principles of virus structure. Chemical composition of viruses
2. Cultivation of viruses. Replication of viruses. The productive virus infection
3. Prophylaxis of viral diseases
4. Antiviral chemotherapy
5. Bacteriophages Subviral agents
6. Laboratory diagnosis of viral infections
7. DNA and RNA tumour viruses
8. Filoviruses
9. Adeno- and Poxviruses
10. Herpesviruses (HHV1, HHV2, VZV)
11. Herpesviruses (EBV, CMV, HHV6, HHV7, HHV8)
12. Papilloma and Parvoviruses
13. Picorna and Caliciviruses
14. Orthomyxoviruses and Coronaviruses
15. Paramyxoviruses ( RSV, Paramyxoviruses)
16. Paramyxoviruses (Mumps and Morbillivirus)
17. Rhabdoviruses
18. Togaviruses
19. Flaviviruses
20. Arena and Reoviruses
21. Bunyaviruses
22. Hepatitviruses (A, E)
23. Hepatitisviruses (B, C, D E, G)
24. Retroviruses and AIDS
25. Viral infections with oral manifestations.
26. Slow viral diseases
27. Nosocomial infections.
28. Characterisation of the helminths. Anthelmintic drugs.
29. Characterisation of zoonosis. Most important zoonotic infections.
30. Pre and perinatal infections and its causative agents.