

**Faculty of Medicine SMU in Bratislava  
Study programme GENERAL MEDICINE**

**TOPICS FOR THE EXAM IN MICROBIOLOGY**

**GENERAL MICROBIOLOGY**

1. Shape, size and arrangement of bacterial cells, bacterial cell structure
2. Bacterial growth and proliferation
3. Pathogenicity, virulence, bacterial virulence factors
4. Bacterial toxins
5. Antibacterial drugs – basic groups of antimicrobials, antimicrobial susceptibility testing
6. Laboratory diagnostics methods in bacteriology
7. Immune response to bacterial, viral, mycotic and parasitic infection
8. Basic characteristics of viruses – structure of viral particle, virus replication
9. Virus-cell interactions and virus-host interactions
10. Laboratory diagnostics methods in virology
11. Prions and prionoses
12. Basic taxonomy of microscopic fungi + reproduction characteristic of lower fungi
13. Reproduction of characteristics of higher fungi + basic mycotoxicology
14. Basic characteristics of protozoa, laboratory diagnostics methods
15. Helminths - basic characteristics of helminths, laboratory diagnostics methods

**SPECIAL MICROBIOLOGY**

1. Genus *Staphylococcus*
2. Genus *Streptococcus*
3. Genus *Neisseria*
4. Genera *Bacillus* and *Clostridium*
5. Genera *Pseudomonas*, *Francisella* and *Brucella*
6. Genera *Legionella* and *Haemophilus*
7. Family *Enterobacteriaceae*
8. Genus *Mycobacterium*
9. Spirochetes
10. Chlamydia and rickettsia
11. *Picornaviridae* a *Adenoviridae*
12. *Herpesviridae*, *Filoviridae*
13. Viruses causing viral hepatitis
14. *Orthomyxoviridae* and *Paramyxoviridae*
15. *Togaviridae*, *Flaviviridae* and *Bunyaviridae*
16. Medically important protozoa
17. Medically important helminths
18. Superficial and subcutaneous mycoses
19. Deep mycoses
20. Antimycotics – classification, mechanism of the action and spectrum of effectivity

**CLINICAL MICROBIOLOGY**

1. Microbial diseases of upper respiratory tract
2. Microbial diseases of lower respiratory tract
3. Microbial diseases of gastro-intestinal tract (except of hepatitis)
4. Microbial diseases of liver
5. Microbial diseases of blood and hematopoietic organs
6. Sexually transmitted diseases
7. Microbial diseases of uropoietic system
8. Sepsis
9. Microbial diseases transmitted from mother to offspring
10. Microbial diseases of skin and skin adnex
11. Microbial diseases of nervous system
12. Microbial diseases of motoric system