


ONTÜSTİK QAZAQSTAN MEDISINA AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ		SOUTH KAZAKHSTAN MEDICAL ACADEMY АО «Южно-Казахстанская медицинская академия»
Department of microbiology, virology and immunology Control and measuring means		044-50/11 1 p. from 6

CONTROL AND MEASURING MEANS

Discipline: Microbiology and Immunology

Discipline code: MI 2219

OP title: "Medicine"

Amount of study hours/credits: 150 hours (5 credits)


Course and semester of study: 2, IV

Shymkent 2023

QUESTIONS OF THE MID-TERM № 1

1. The concept of “immunity”, types of immunity, main functions of immunity.
2. The human immune system as a diffuse organ. Immune system cells
3. Define the concept of “antibody” and their functions.
4. Classes of immunoglobulins, their main characteristics, differences and features.
5. Agglutination reaction. Indirect or passive agglutination reaction (IPA).
6. Precipitation reaction. Immunodiffusion.
7. Immunoelectrophoresis (IEF). Immunoblotting.
8. Coombs reaction (antiglobulin test).
9. Neutralization and flocculation reactions.
10. Hemagglutination inhibition reaction (HAI). Complement fixation reaction (CFR).
11. Reaction of immune lysis, hemolysis and immobilization.
12. Reactions involving labeled antigens or antibodies.
13. Nucleic acid hybridization method.
14. Polymerase chain reaction.
15. DNA sequencing method.
16. Morphology, cultural properties, pathogenesis of staphylococci.
17. Microbiological diagnosis, prevention and treatment of staphylococcal infection.
18. Morphology, cultural properties, pathogenesis of streptococci.
19. Microbiological diagnosis, prevention and treatment of streptococcal infection.
20. Morphology, cultural properties, pathogenesis of the causative agent of syphilis.
21. Morphology, cultural properties, pathogenesis of the causative agent of gonorrhea.
22. Morphology, cultural properties, pathogenesis of the causative agent of urogenital chlamydia.
23. Microbiological diagnosis, prevention and treatment of sexually transmitted diseases (syphilis, gonorrhea, urogenital chlamydia).
24. Morphology, cultural properties and pathogenesis of gas gangrene.


25. Morphology, cultural properties and pathogenesis of tetanus.
26. Morphology, cultural properties and pathogenesis of botulism.
27. Microbiological diagnosis of clostridia (inoculation on Kitta-Tarotsi medium).
specific prevention.
28. Morphology, cultural properties, pathogenesis of Salmonella.
29. Morphology, cultural properties, pathogenesis of Escherichia.
30. Morphology, cultural properties, pathogenesis of Shigella.
31. Microbiological diagnosis, prevention and treatment of Escherichia, Shigella, Salmonella.
32. Morphology, cultural properties, pathogenesis of Vibrio cholerae.
33. Microbiological diagnosis, prevention and treatment of campylobacter and vibrio cholera.
34. General characteristics and microbiological methods for diagnosing meningococcal infection.
35. Morphology, cultural properties, pathogenesis of Mycobacterium tuberculosis.
36. Microbiological diagnosis, prevention and treatment of tuberculosis.
37. Morphology, cultural properties, pathogenesis of the causative agent of whooping cough.
38. Microbiological diagnosis, prevention and treatment of whooping cough pathogens.
39. Morphology, cultural properties, pathogenesis of the causative agent of diphtheria.
40. Microbiological diagnosis, prevention and treatment of diphtheria pathogens.
41. Biological properties, laboratory diagnostics of Pseudomonas aeruginosa.
42. Biological properties, laboratory diagnostics of Haemophilus influenzae.

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QUESTIONS OF THE MID-TERM № 2


1. Morphology of the plague pathogen, sowing properties.
2. Pathogenesis, microbiological diagnosis, prevention of plague.
3. Morphology, cultural properties of the anthrax pathogen.
4. Pathogenesis, microbiological diagnostics, prevention of anthrax.
5. Morphology of the causative agent of brucellosis, cultural properties.
6. Pathogenesis, microbiological diagnosis, prevention of brucellosis.
7. Etiology, pathogenesis, microbiological diagnosis, prevention of West Nile fever.
8. Characteristics, pathogenesis, microbiological diagnosis, prevention of the causative agent of zoonotic cutaneous leishmaniasis.
9. Biological features and laboratory diagnosis of keratomycosis.
10. Biological features and laboratory diagnosis of trichomycosis.
11. Biological features and laboratory diagnosis of histoplasmosis.
12. Biological features and laboratory diagnosis of leishmaniasis.
13. Biological features and laboratory diagnosis of balantidiasis.
14. Biological features and laboratory diagnosis of giardiasis.
15. Biological features and laboratory diagnosis of reversible typhus
16. Biological features and laboratory diagnosis of epidemic typhus.
17. Biological features and laboratory diagnostics of Q fever.
18. General characteristics of the Federal State Educational Standard, Laboratory diagnostics.
19. General characteristics, Laboratory diagnostics, prevention of coronavirus infection.
20. Structure and antigenic properties of adenoviruses, Laboratory diagnostics.
21. Pathogenesis, clinical picture, prevention and treatment of adenovirus infection.
22. Morphology and chemical composition of the influenza virus, resistance to the external environment and epidemiology.

23. Pathogenesis, clinical picture and laboratory diagnosis of influenza.
24. Morphological and antigenic features of hepatitis A, Laboratory diagnostics.
25. Pathogenesis, clinical picture, epidemiology and immunity of hepatitis B.
26. Laboratory diagnosis of hepatitis B.
27. Morphological and biological features, Laboratory diagnosis of hepatitis D.
28. General characteristics, clinical epidemiology and laboratory diagnosis of hepatitis C.
29. General characteristics of enteroviruses, their classification and taxonomy.
30. Morphological and antigenic features of poliovirus, Laboratory diagnostics.
31. Features of epidemiology, pathogenesis and clinical picture of polio.
32. Advantages and disadvantages of vaccines used to prevent polio. Treatment of polio.
33. General characteristics, epidemiology, clinical picture and laboratory diagnosis of rotavirus infection,
34. General characteristics of the human immunodeficiency virus.
35. Pathogenesis, clinic, Laboratory diagnosis of HIV infection.
36. General characteristics of oncogenic viruses.
37. Morphology of measles virus, properties of culture.
38. Pathogenesis, microbiological diagnosis and prevention of measles virus.
39. Morphology of the rubella virus, properties of the culture.
40. Pathogenesis, microbiological diagnosis and prevention of rubella virus.
41. Pathogenesis, microbiological diagnosis, prevention of varicella zoster virus.
42. Morphology of mumps, sowing properties.
43. Pathogenesis, microbiological diagnosis, prevention of mumps.
44. General characteristics of herpes viruses, their classification and taxonomy.
45. Pathogenesis, microbiological diagnosis and prevention of diseases caused by herpes viruses.
46. Morphology of tick-borne encephalitis, cultural properties.

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47. Pathogenesis, microbiological diagnosis, prevention of tick-borne encephalitis.
48. General characteristics, clinic, Laboratory diagnosis of cytomegalovirus infection.
49. Morphology of rabies, properties of culture.
50. Pathogenesis, microbiological diagnosis, prevention of rabies.

Compiler:  Senior teacher Abdramanova A.A.

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