Appendix to the working program

Federal State Budgetary Educational Institution of Higher Education
"Privolzhsky Research Medical University"
Ministry of Health of the Russian Federation

BANK OF ASSESSMENT TOOLS FOR DISCIPLINE

"EPIDEMIOLOGY"

Training program (specialty): **31.05.01 GENERAL MEDICINE**

Department: **EPIDEMIOLOGY, MICROBIOLOGY AND**

EVIDENCE-BASED MEDICINE

Mode of study **FULL-TIME**

Nizhniy Novgorod
202_

1. Bank of assessment tools for the current monitoring of academic performance, mid-term assessment of students in the discipline / practice

This Bank of Assessment Tools (BAT) for the discipline "EPIDEMIOLOGY" is an integral appendix to the working program of the discipline "EPIDEMIOLOGY". All the details of the approval submitted in the WPD for this discipline apply to this BAT.

(Banks of assessment tools allow us to evaluate the achievement of the planned results stated in the educational program.

Assessment tools are a bank of control tasks, as well as a description of forms and procedures designed to determine the quality of mastering study material by students.)

2. List of assessment tools

The following assessment tools are used to determine the quality of mastering the academic material by students in the "EPIDEMIOLOGY":

No.	Assessment tool	Brief description of the assessment tool	Presentation of the assessment tool in the BAT
1	Test	A system of standardized tasks that allows you to automate the procedure of measuring the level of knowledge and skills of a student	Bank of test tasks
2	Abstract	The product of the student's independent work, which is a summary in writing of the results of the theoretical analysis of a certain scientific (educational and research) topic, where the author reveals the essence of the problem under study, provides various points of view, as well as his /her own views on it.	List of abstract topics
3	Situational tasks	A method of control that allows you to assess the criticality of thinking and the degree of the material comprehension, the ability to apply theoretical knowledge in practice.	List of tasks
4	Individual survey	A control tool that allows you to assess the degree of comprehension of the material	List of questions

3. A list of competencies indicating the stages of their formation in the process of mastering the educational program and the types of evaluation tools

Code and formulation of competence	Stage of competence formation	Controlled sections of the discipline	Assessment tools

UC -1; UC - 3; UC -4; UC - 6; UC -8; GPC - 1; GPC - 2; GPC - 4; GPC - 6; GPC - 11; PC - 16; PC - 18; PC - 19; PC - 21	Entry	**Section 1** General epidemiology with the foundations of evidence-based medicine	Test Individual survey
UC -1; UC - 3; UC -4; UC - 6; UC -8; GPC - 1; GPC - 2; GPC - 4; GPC - 6; GPC - 11; PC - 16; PC - 18; PC - 19; PC - 21	Current	**Section 2.** Epidemiology of infectious diseases	Test Situational tasks Individual survey Abstract
UC -1; UC - 3; UC -4; UC - 6; UC -8; GPC - 1; GPC - 2; GPC - 4; GPC - 6; GPC - 11; PC - 16; PC - 18; PC - 19; PC - 21	Current	**Section 3.** Hospital epidemiology	Test Situational tasks Individual survey
UC -1; UC - 3; UC -4; UC - 6; UC -8; GPC - 1; GPC - 2; GPC - 4; GPC - 6; GPC - 11; PC - 16; PC - 18; PC - 19; PC - 21	Mid-term	**Section 4.** Epidemiology of noncommunicable diseases	Test Individual survey Abstract

4. The content of the assessment tools of entry, current control

Entry /current control is carried out by the discipline teacher when conducting classes in the form of: situational tasks,individual survey, abstract

Abstract Assessment tools for current control.

Individual survey

1. Types (options, characteristic features) of epidemiological studies.
2. Types of epidemiological studies.
3. Evaluation of preventive and therapeutic measures based on the principles of evidence-based medicine.
4. Controlled randomized clinical trial (study).

5. The concept of "gold standard", randomization, informed consent of patients in clinical trials and medical practice.
6. Four levels of organization of "masked research" in clinical trials.
7. Database. Search for evidence-based information Sources of evidence-based information.
8. Meta-analysis based on published scientific papers.
9. Four levels of evidence (reliability) of the effectiveness of preventive and / or therapeutic measures.
10. Preventive and anti-epidemic measures.
11. The quality and effectiveness of anti-epidemic measures.
12. Evaluation of the effectiveness of preventive and anti-epidemic measures from the standpoint of evidence-based medicine.
13. Varying degree of controllability of infections.
14. Groups of anti-epidemic measures.
15. The main feature of the grouping of measures according to the direction of their action on the elements of the epidemic process.
16. Measures aimed at the source of infection in anthroponoses and zoonoses.
17. Measures aimed at breaking the transmission mechanism.
18. Activities directed at a susceptible organism.
19. Vaccination of persons not vaccinated according to the calendar.
20. Evaluation and accounting of post-vaccination reactions and post-vaccination complications.
21. The national calendar of preventive vaccinations as an instructive and methodological document regulating the timing, sequence, indications and scheme for the use of the vaccine.
22. The principles of its compilation.
23. Ways to improve the vaccination calendar.
24. Approaches to the personification of immunoprophylaxis.
25. Emergency immunoprophylaxis (non-specific and specific).
26. The main groups of chemicals used as disinfectants.
27. General characteristics of groups. Sterilization.
28. The value of sterilization in the prevention of nosocomial infections.
29. Pre-sterilization cleaning of medical devices (after disinfection). requirements for its implementation.
30. Disinfection and sterilization equipment.
31. Disinfection chambers.
32. General characteristics of anthroponoses.
33. Concept definition. Grouping of anthroponoses depending on the implementation of the main mechanism of transmission of infectious agents.
34. Sources of infection and their potential and real epidemiological danger.
35. Features of the development and manifestation of the epidemic process in anthroponoses with a different transmission mechanism.
36. The activity of various transmission routes in various infectious diseases.
37. Significance and characteristics of preventive and anti-epidemic measures
38. Sanitary-hygienic and anti-epidemic regime in medical organizations of the dental profile.
39. Prevention of HCAI among medical workers.
40. The content and organization of epidemiological surveillance of HCAI, the features of its implementation in medical organizations of the dental profile.
41. Prevention of occupational infection with HIV, hepatitis viruses.
42. Safety of workplaces in medical organizations of the dental profile**.**
43. Post-exposure prophylaxis of viral hepatitis and HIV infection.
44. Definition of the term "epidemiology of non-communicable diseases".
45. Characteristics of manifestations of non-infectious morbidity: intensity, dynamics, structure, internal and external risk factors for the development of pathology, epidemiological surveillance.
46. Stages of planning programs for the prevention of dental diseases.

Abstract

1. Measles. Etiology. Characteristics of the epidemic process. Manifestations of the epidemic process. The system of epidemic surveillance control. Anti-epidemic measures in the outbreak.

2. Diphtheria. Etiology. Characteristics of the epidemic process. Manifestations of the epidemic process. The system of epidemic surveillance control. Anti-epidemic measures in the outbreak.

3. Epidemic mumps. Etiology. Characteristics of the epidemic process. Manifestations of the epidemic process. The system of epidemic surveillance control. Anti-epidemic measures in the outbreak.

4. Scarlet fever. Etiology. Characteristics of the epidemic process. Manifestations of the epidemic process. The system of epidemic surveillance control. Anti-epidemic measures in the outbreak.

5. Meningococcal infection. Etiology. Characteristics of the epidemic process. Manifestations of the epidemic process. The system of epidemic surveillance control. Anti-epidemic measures in the outbreak.

6. Whooping cough. Etiology. Characteristics of the epidemic process. Manifestations of the epidemic process. The system of epidemic surveillance control. Anti-epidemic measures in the outbreak.

7. Influenza and SARS. Etiology. Characteristics of the epidemic process. Manifestations of the epidemic process. The system of epidemic surveillance control. Anti-epidemic measures in the outbreak.

8. New coronavirus infection. Etiology. Characteristics of the epidemic process. Manifestations of the epidemic process. The system of epidemic surveillance control. Anti-epidemic measures in the outbreak.

9. Community-acquired pneumonia. Etiology. Characteristics of the epidemic process. Manifestations of the epidemic process. The system of epidemic surveillance control. Anti-epidemic measures in the outbreak.

10. Tuberculosis. Etiology. Characteristics of the epidemic process. Manifestations of the epidemic process. The system of epidemic surveillance control. Anti-epidemic measures in the outbreak.

11. Epidemiology of infections transmitted predominantly sexually. Basic principles of prevention.

12. Poliomyelitis. Etiology. Characteristics of the epidemic process. Manifestations of the epidemic process. The system of epidemic surveillance control. Anti-epidemic measures in the outbreak.

13. Enteroviral infections. Etiology. Characteristics of the epidemic process. Manifestations of the epidemic process. The system of epidemic surveillance control. Anti-epidemic measures in the outbreak.

14. Epidemiological surveillance of cholera.

15. Cholera. Types of institutions and organization of their work in the focus of cholera.

16. Cholera. Characteristics of the epidemic process, features of the seventh cholera pandemic

17. Typhoid fever and paratyphoid Etiology. Characteristics of the epidemic process. Manifestations of the epidemic process. The system of epidemic surveillance control. Anti-epidemic measures in the outbreak.

18. Escherichiosis. Etiology. Characteristics of the epidemic process. Manifestations of the epidemic process. The system of epidemic surveillance control. Anti-epidemic measures in the outbreak.

19. Salmonellosis. Etiology. Characteristics of the epidemic process. Manifestations of the epidemic process. The system of epidemic surveillance control. Anti-epidemic measures in the outbreak.

20. Salmonellosis as HCAI. Features of epidemiology and measures in medical organizations in the event of diseases.

21. Shigellosis. Etiology. Characteristics of the epidemic process. Manifestations of the epidemic process. The system of epidemic surveillance control. Anti-epidemic measures in the outbreak.

22. The main signs of the epidemic process of intestinal infections, characteristic of the water route of transmission.

23. The main signs of the epidemic process of intestinal infections, characteristic of the food way of transmission.

24. The main signs of the epidemic process of intestinal infections, characteristic of the household route of transmission.

25. Hepatitis with fecal-oral transmission mechanism. Etiology. Characteristics of the epidemic process. Manifestations of the epidemic process. The system of epidemic surveillance control. Anti-epidemic measures in the outbreak.

26. Typhus. Etiology. Characteristics of the epidemic process. Manifestations of the epidemic process. The system of epidemic surveillance control. Anti-epidemic measures in the outbreak.

27. Epidemiological characteristics of diphyllobothriasis. Influence of environmental factors on the formation of foci of diphyllobothriasis.

28. Epidemiological characteristics of ascariasis.

29. Epidemiology and prevention of enterobiasis.

30. Basic provisions of the doctrine of sapronoses. Epidemiological features and prevention of sapronoses.

31. Legionellosis. Etiology. Characteristics of the epidemic process. Manifestations of the epidemic process. The system of epidemic surveillance control. Anti-epidemic measures in the outbreak.

32. Tetanus. Etiology, characteristics of the epidemic process, specific prevention.

33. Tick-borne encephalitis. Etiology. Characteristics of the epidemic process. Manifestations of the epidemic process. The system of epizootic and epidemiological surveillance and control. Activities in natural

34. Tick-borne borreliosis. Etiology. Characteristics of the epidemic process. Manifestations of the epidemic process. The system of epizootic and epidemiological surveillance and control. Activities in natural and anthropurgic foci.

35. Leptospirosis. Etiology. Characteristics of the epidemic process. Manifestations of the epidemic process. The system of epizootic and epidemiological surveillance and control. Anti-epidemic measures in the outbreak.

36. Rabies. Etiology. Characteristics of the epidemic process. Manifestations of the epidemic process. The system of epidemic surveillance control. Anti-epidemic measures in the outbreak.

37. Brucellosis. Etiology. Characteristics of the epidemic process. Manifestations of the epidemic process. The system of epizootic and epidemiological surveillance and control. Anti-epidemic measures in the outbreak.

38. Tularemia. Etiology. Characteristics of the epidemic process. Manifestations of the epidemic process. Classification of natural foci. The system of epizootic and epidemiological surveillance and control. Anti-epidemic measures in the outbreak.

39. Sanitary protection of the territory of the Russian Federation from the importation and spread of infectious diseases

40. Anthrax. Etiology. Characteristics of the epidemic process. Manifestations of the epidemic process. The system of epidemic surveillance control. Anti-epidemic measures in the outbreak.

41. Plague. Natural foci of plague. Etiology. Characteristics of the epidemic process. Manifestations of the epidemic process. The system of epizootic and epidemiological surveillance and control. Anti-epidemic measures in the outbreak.

42. HFRS. Etiology. Characteristics of the epidemic process. Manifestations of the epidemic process. The system of epizootic and epidemiological surveillance and control. Anti-epidemic measures in the outbreak.

43. Lassa fever, Marburg and Ebola. Etiology. Characteristics of the epidemic process. Manifestations of the epidemic process. The system of epidemic surveillance control. Anti-epidemic measures in the outbreak.

44. Malaria. Etiology. Characteristics of the epidemic process. Manifestations of the epidemic process. The system of epidemic surveillance control. Anti-epidemic measures in the outbreak.

45. HAI: relevance, terminology, classification.

46. HCAI: preventive and anti-epidemic measures.

47. Epidemiological features of HAIs caused by opportunistic flora.

48. HCAI of medical personnel. Causes of development, principles of prevention.

49. Features of HCAI in multidisciplinary hospitals. Epidemiological surveillance and control.

50. Features of HAI in outpatient settings. Epidemiological surveillance and control.

51. Features of HCAI in institutions for the protection of motherhood and childhood. Intrauterine infections in newborns. Epidemiological surveillance and control.

52. The use of antimicrobial drugs in medical organizations. Perioperative antibiotic prophylaxis: definition, purpose, objectives, tactics.

53. Standard case definition, clinical, etiological and epidemiological features of surgical site infections (SSI). Preventive and anti-epidemic measures.

54. Standard case definition, clinical, etiological and epidemiological features of nosocomial pneumonia. Preventive and anti-epidemic measures.

55. Standard case definition, clinical, etiological and epidemiological features of bloodstream infections. Preventive and anti-epidemic measures.

56. Standard case definition, clinical, etiological and epidemiological features of urinary tract infections. Preventive and anti-epidemic measures.

57. Statistical indicators used in the epidemiological analysis of the incidence of HAIs. stratified indicators.

58. Epidemiological significance of the treatment of the hands of medical personnel. Microflora of the skin of the hands.

59. Antiseptics in the prevention of HAIs. Classification and characteristics of antiseptics, types of treatment of the hands of medical personnel.

60. Disinfection and sterilization regime in medical organizations. Processing of medical devices. Criteria for the selection of disinfectants.

61. Disinfection and sterilization regime in medical organizations. Organization of the work of the CSO.

62. Medical waste: definitions, legal framework, classification and characterization of waste, organization of collection, storage, disinfection and disposal.

63. HIV infection. Etiology, sources of infection, routes of transmission. Basic principles of prevention.

64. Parenteral hepatitis. Etiology. Characteristics of the epidemic process. Manifestations of the epidemic process. The system of epidemic surveillance control. Anti-epidemic measures in the outbreak. Prevention of infection.

65. General epidemiology of noncommunicable diseases

66. Epidemiological characteristics of oncological diseases. Etiological risk factors for cancer. Cancer epidemiology concept.

67. Fundamentals of cancer prevention.

68. Epidemiology and prevention of diabetes. main causative factors.

4.1. Tasks for the assessment of competence " *UC -1; UC - 3; UC -4; UC - 6; UC -8; GPC - 1; GPC - 2; GPC - 4; GPC - 6; GPC - 11; PC - 16; PC - 18; PC - 19; PC - 21*" *:*

Task 1.

The analytic study demonstrated that the children contracted measles more frequently had not been vaccinated against this infection. What might be odds ratio (OR) to show a probable association between a disease and the tested factor in the epidemiologic study?

1) OR = 1
2) OR = 3.7
3) OR = 0.05
4) OR cannot be calculated.

Task 2. A randomized clinical trial has been performed to investigate the effectiveness of a remedy for prophylaxis of acute coronavirus infection. The treated group consisted of children with the psychoneurological symptoms (n=187). The control group consisted of 132 children. The medical observation lasted 7 days. The negative outcome was in 9 treated children (4.8%) and 21 children (15.9%) in the control group ($p<0.001$).

Tasks:

1. Calculate risks of the infection in the treated and control groups, relative risk, reduction of RR, coefficient of protectiveness, as well as number needed to treat;
2. How can the results of the RCT be interpreted?

Task 3.

The situations listed below require some measure to prevent occurrence of viral hepatitis B:

1) A surgeon was not vaccinated against hepatitis B before. The doctor contacted a patient who was a carrier of *HBsAg* while performing an operation. During it he has cut an arm with gloves by the scalpel.

2) A woman suffered from acute hepatitis B in the second trimester of pregnancy. She has given a birth to a child.

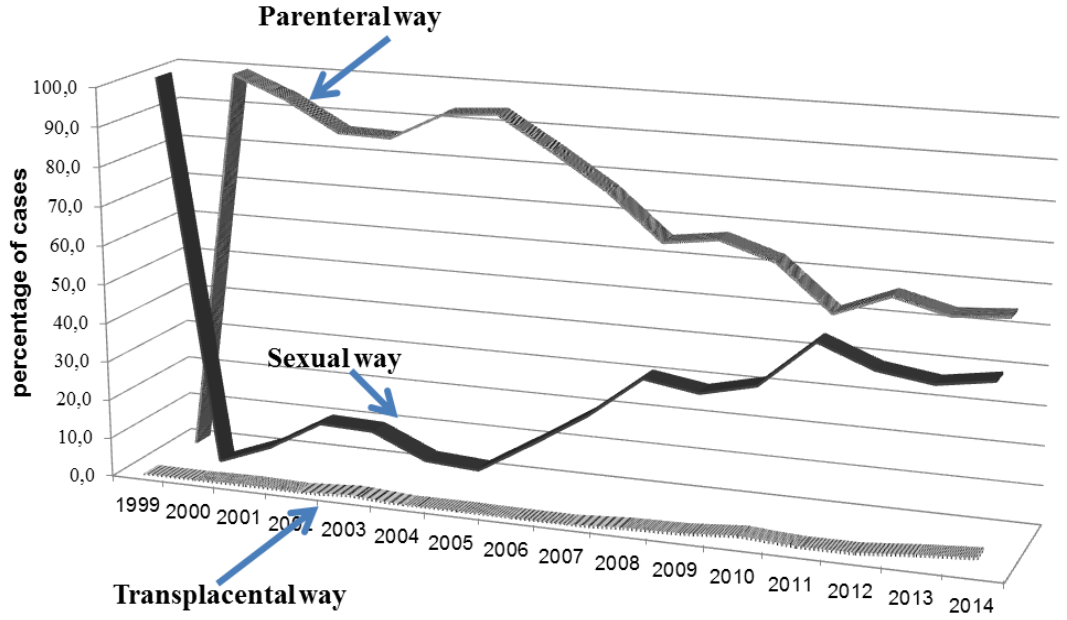
3) A patient was diagnosed chronic active viral hepatitis B. Hi shares the 1-room flat with his wife aged 33 and his son aged 11. Both of them are not immunized against hepatitis B.

4) A laboratory technician has broken a test tube containing the blood from a carrier of *HBsAg*. The blood contacted unprotected skin. The laboratory technician was completely vaccinated against hepatitis B 1 year ago.

Tasks: 1) Determine necessity of immunoprophylaxis in each case. 2) What kind of immunization is possible? indicate the preparations and how to administer? 3) What other measures should be conducted in each case?

Task 4.

Results of the epidemiologic surveillance for HIV are shown on the diagram given below:



Tasks: What title can you offer for it? What main conclusions do you draw from this picture?

Task 6.

Patient K., aged 72, stayed in the surgical department of hospital with the diagnosis "*Gastric ulcer complicated by hemorrhage and decompensated stenosis*" from 15.12. to 15.01. Associated diseases: diabetes mellitus. On December, 24 the patient was operated on (upper-median laparotomy, anterior gastroenteroanastomosis with Brown anastomosis) within an hour and 35 minutes.

The postoperative period: the patient was in intensive care unit for 24 hours, and artificial lung ventilation was performed there during 10 hours. In early postoperative period (first 24 hours after the intervention) there was hemorrhage that required an additional operation. From 27.12. to 02.01. the patient's temperature rose up to 37.5^0C. On December, 30 palpation revealed an infiltrate in postoperative wound site was observed. On December, 02 in wound revision 5 ml of purulent sanioserous fluid was taken away. The bacteriological analysis of wound discharge isolated *Staphylococcus epidermidis*.

Tasks: How can you assess the complications occurred in patient during postoperative period? What are the risk factors of the complication in this case?

Task 7.

Patient A. consulted a surgeon in polyclinic on December, 19 complaining of the tenderness in big toe of the left foot. Diagnosis: *ingrow hallux nail of left foot without inflammatory signs*. The patient was scheduled an operation in outpatient department. On December, 21 onychectomy was performed under local anesthesia. The manipulation was made in the "pus" dressing room of the surgical department of polyclinic.

On December, 23 during regular dressing the patient complained of constant severe pain in postoperative wound. On examination: edematous wound, with profuse greenish discharge with a slightly bloody tinge. The patient was administered toilet of the wound, and aseptic dressing was applied. On December, 25 this patient complained of acute throbbing pain in left foot; I toe was hyperemic, there was profuse seropurulent discharge from the wound, edema of the back of the foot. The patient was directed to the department of purulent surgery for inpatient treatment.

Tasks: What mistakes were made by the doctor in his management of the patient? What measures are to be taken? Refer this case to importations or hospital-acquired infections according to occurrence conditions.

4.3. Questions for colloquiums, interviews *(specify the competence code):*

4.4. Tasks (assessment tools) for the exam/credit

The full package of examination tasks/tasks is given *(specify the competence code):*

And then the tasks are specified for all competencies provided for this discipline.

5. The content of the assessment tools of mid-term assessment

Mid-term assessment is carried out in the form of a credit.

*The content of the assessment tool (*Test)

Section 1

Topic 1

1. A GOOD DEFINITION OF EPIDEMIOLOGY AS A SCIENCE IS
   1) the study of the distribution and determinants of health-related states and events in specified populations and the application of this study for the control of health problems
   2) the study of outbreaks and multiple cases
   3) the science of epidemics and pandemics

4) the medical science, which investigates the causes of occurrence and spread of communicable diseases in the human society and applies this knowledge for fighting and prevention of these diseases.

2. EPIDEMIOLOGY OF INFECTIOUS DISEASES IS
1) the science of epidemics and pandemics
2) the branch of epidemiology, which investigates the causes of occurrence and spread of communicable diseases in the human society and applies this knowledge for fighting and prevention of these diseases
3) the scientific study of epidemic outbreaks
4) the study of the distribution and determinants of health-related events in specified populations and the application of this study for the control of health problems.

3. THE METHOD APPLIED IN EPIDEMIOLOGY OF INFECTIOUS DISEASES IS
1) bacteriological method
2) statistical method
3) logistic method
4) epidemiological method

4. EPIDEMIOLOGICAL APPROACH MEANS TO INVESTIGATE HUMAN'S PATHOLOGY
1) at individual level
2) at molecular and genetic level
3) at population level
4) at cellular level

5. EPIDEMIOLOGY INVESTIGATES
1) only infectious communicable diseases
2) all diseases and health-related states and events
3) only noninfectious diseases
4) chronic diseases and states

6. MODERN STRUCTURE OF EPIDEMIOLOGY COMPRISES TWO FOLLOWING MAIN BRANCHES:
1) epidemiology of infectious diseases and epidemiology of noninfectious diseases
2) general epidemiology and epidemiology of different nosological groups
3) clinical epidemiology and military epidemiology
4) descriptive epidemiology and analytic epidemiology.

Choose ALL correct answers:

7. THE MAIN GOALS OF EPIDEMIOLOGY ARE THE FOLLOWING:
1) characterising the frequency and distribution of diseases and other conditions in population
2) reducing the morbidity and mortality from infections, preventing the spread of communicable diseases
3) providing the surveillance of diseases and other conditions
4) evaluating prophylactic means and measures
5) identifying factors causing the occurrence and spread of diseases

8. EPIDEMIOLOGY IS BASED ON THE FOLLOWING FUNDAMENTAL ASSUMPTIONS:
1) diseases do not occur by chance
2) diseases are not distributed randomly in the population, thus, their distribution indicates something about how and why that disease process has occurred

3) diseases occur by chance and have random distribution
4) diseases are distributed randomly in the population

9. EPIDEMIOLOGICAL APPROACH USED TO INVESTIGATE HUMAN'S PATHOLOGY INCLUDES:

1) investigation at the individual level
2) investigation at the level of population
3) complex investigation
4) integration of many methods from different disciplines
5) using a single specific method

10. MATCH THE TYPES OF EPIDEMIOLOGICAL STUDIES LISTED IN THE LEFT COLUMN WITH THE CORRESPONDING EXAMPLES IN THE RIGHT ONE:

Types of epidemiological studies	*Examples of different epidemiological studies*
1. descriptive 2. analytic 3. experimental	a) cohort studies b) case reports c) clinical trials d) populations (correlation) studies e) case-control studies f) field trials

Topic 2

1. DESCRIPTIVE TYPE OF EPIDEMIOLOGICAL STUDIES
   1) identifies causal relationships or factors associated with disease
   2) characterizes the distribution of cases in relation to person, place, and time
   3) estimates the effectiveness of treatment and prophylactic means and measures
2. ANALITIC TYPE OF EPIDEMIOLOGICAL STUDIES
   1) estimates the effectiveness of treatment and prophylactic means and measures
   2) characterizes the distribution of cases in relation to person, place, and time
   3) identifies causal relationships or factors associated with disease

3. EXPERIMENTAL TYPE OF EPIDEMIOLOGICAL STUDIES
   1) estimates the effectiveness of treatment and prophylactic means and measures
   2) identifies causal relationships or factors associated with disease
   3) illustrates the distribution of cases in relation to place, person, and time.

4. ANALYTIC TYPE OF EPIDEMIOLOGICAL STUDIES MAY BE
   1) only retrospective
   2) only prospective
   3) retrospective and prospective
   4) historical.

5. THE SENSITIVITY OF A RAPID DIAGNOSTICS TEST 94% MEANS:
   1) the test reveals all infected individuals
   2) the test does not reveal 6% of diseased persons
   3) a share of true negative results
   4) a share of false positive results.

6. ODDS RATION CAN BE DEFINED AS
   1) the portion of the incidence of a disease in the population that is due to exposure.
   2) a sort of attributable risk percent

3) an absolute difference of the risks:
4) the chances of being exposed as opposed to not being exposed.

7. THE OBJECTIVE OF RANDOMIZED FIELD TRIAL IS THE FOLLOWING:
1) evaluating the safety of drugs
2) revealing the adverse effects of a vaccine
3) evaluating the efficacy and safety of a vaccine
4) evaluating the real effectiveness of a drug.

Choose ALL correct answers:

8. VALIDITY CAN BE THE FOLLOWING TYPES:
1) test validity
2) face validity
3) external validity
4) internal validity

9. EXAMPLES OF THE DESCRIPTIVE STUDIES AMONG LISTED BELOW:
1) cross-sectional survey
2) case series report
3) cohort study
4) case report

10. EXAMPLES OF THE ANALITIC STUDIES AMONG LISTED BELOW:
1) cross-sectional survey
2) case-control study
3) randomized clinical trials
4) cohort studies

11. INSTANCES OF THE CONTROLED EXPERIMENTAL STUDIES AMONG LISTED BELOW:
1) case-control study
2) field trial
3) cohort studies
4) randomized clinical trial

12. EXPERIMENTAL EPIDEMIOLOGICAL STUDIES INCLUDES
1) controlled epidemiological experiment
2) cohort study
3) uncontrolled epidemiological experiment
4) “natural” experiment

13. EXPERIMENTAL TYPE OF EPIDEMIOLOGICAL STUDIES MAY BE
1) blinded
2) double blinded
3) triple blinded
4) four times blinded

14. THE PLAUSIBLE BIAS IN THE CLINICAL TRIALS:
1) selection bias
2) investigation bias
3) performance bias
4) exclusion bias.

15. MATCH THE TYPES OF EPIDEMIOLOGICAL ANALITIC STUDIES LISTED IN THE LEFT COLUMN WITH THEIR APPLICATION:

Types of epidemiological analytic studies	*Applications of different epidemiological analytic studies*
1. case-control study 2. cohort study	a) for the examination of multiple etiologic factors for a single disease b) for the examination of multiple effects of a single exposure c) for the elucidation of temporal relationship d) for the evaluation of diseases in long latent periods e) for the evaluation of rare etiologic factors f) for the evaluation of rare disease

16. MATCH A VALUE OF RELATIVE RISK LISTED IN THE LEFT COLUMN WITH THEIR MEANING IN THE RIGHT COLUMN:

A value of RR	*The meaning of RR*
1. RR = 1 2. RR > 1 3. RR < 1	a) a risk to have a disease is more if a factor is present b) a factor can be protective c) it is necessary to conduct an additional study d) there is no association between a risk factor and a disease

Complete the sentences

17. ANALYTIC AND DESCRIPTIVE STUDIES ARE _____STUDIES, BECAUSE INVESTIGATORS DO NOT INFLUENCE THE RESULTS BY ANY MEANS AND MEASURE.

18. EXPERIMENTAL STUDIES ARE _____ STUDIES, BECAUSE INVESTIGATORS CAN INFLUENCE THE INDIVIDUALS BY USING THE MEANS OR TAKING MEASURES.

19. THE BEST WAY TO ALLOCATE PARTICIPANTS OF THE CONTROLLED EPIDEMIOLOGICAL EXPERIMENT TO THE TREATMENT GROUP AND THE PLACEBO GROUP IS _____.

Section 2
Topic 1

1. EPIDEMICAL PROCESS IS CONSIDERED TO BE
   1) the chain of epidemic foci or clusters
   2) the chain of specific infectious states (diseases, carriers), following each other and connected with each other
   3) the place of being a source of infection on a surrounding territory within the limits of which an agent can be transmitted to susceptible host
   4) the process of occurrence and spread diseases in human population

2. ANTHROPONOSES ARE CLASSIFIED IN ACCORDANCE WITH
   1) the specific ecology of the causative agent
   2) the natural reservoir of the etiologic agent
   3) a type of the natural vectors and corresponding way of transmission
   4) the specific location of the etiologic agent in the human body and corresponding mechanism of transmission

3. SAPRONOSES ARE CLASSIFIED ACCORDING TO
   1) the ecology of etiologic agent
   2) the specific reservoir of a etiologic agent

3) the specific location of the etiologic agent in the human body and corresponding mechanism of transmission
4) the type of animals, who are the sources of the microbe

4. ISOLATION IS DIRECTED TO THE FOLLOWING LINK OF EPIDEMICAL PROCESS
1) a source of infection
2) a vehicle of transmission
3) a mechanism of transmission
4) susceptible hosts

5. SANITARY AND HYGIENIC MEASURES ARE DIRECTED TO THE FOLLOWING LINK
1) a source of infection
2) routes of transmission
3) susceptible hosts

6. IMMUNOPROPHYLAXIS INFLUENCES THE FOLLOWING LINK OF EPIDEMICAL PROCESS
1) a source of infection
2) a mechanism of transmission
3) a susceptible host

7. A TRUE DEFINITION OF EPIDEMIOLOGIC SURVEILLANCE IS
1) the system of different measures used to prevent occurrence of infectious diseases
2) collection, analysis, dissemination of all data, needed to control diseases, and manage the control system
3) the complex of different actions and measures used to localize and eliminate an epidemic focus

8. A RELEVANT DEFINITION OF PROPHYLACTIC MEASURES IS
1) the complex of organizational, medical, diagnostic, sanitary and hygienic and other measures used to prevent occurrence of infectious diseases
2) the complex of organizational, medical, diagnostic, sanitary and hygienic and other measures used to localize and eliminate an epidemic focus
3) the system of collection, analysis, dissemination of all data, needed to control diseases, and manage the control system

9. AN APPROPRIATE DEFINITION OF ANTIEPIDEMIC MEASURES IS
1) the complex of organizational, medical, diagnostic, sanitary and hygienic and other measures used to prevent occurrence of infectious diseases
2) the complex of organizational, medical, diagnostic, sanitary and hygienic and other measures used to localize and eliminate an epidemic focus
3) the system of collection, analysis, dissemination of all data, needed to control diseases, and manage the control system

10. A PATHWAY (ROUTE) OF TRANSMISSION CAN BE DEFINED AS
1) the complex of factors to transmit the agent from the source of infection to a susceptible host in a certain case at a certain moment
2) the complex of inanimate objects and live organisms, which can transfer an agent (microbe) from a source of infection to a susceptible host
3) the way of transferring the agent from one host to another. This way makes possible the existence of the agent as the biologic species

Choose ALL correct answers:

11. EXAMPLES OF THE ANTHROPONOSES AMONG LISTED BELOW

1) brucellosis
2) rotavirus infection
3) legionelliosis
4) malaria

12. EXAMPLES OF THE ZOONOSES AMONG LISTED BELOW

1) hepatitis A
2) salmonellosis
3) tularemia
4) measles

13. EXAMPLES OF THE SAPRONOSES AMONG LISTED BELOW

1) pseudotuberculiosis
2) rabies
3) legionelliosis
4) Lassa fever

14. EXAMPLES OF THE RESPIROTORY ANTHROPONOSES AMONG LISTED BELOW

1) leptospirosis
2) rubella
3) smallpox
4) pertussis

15. EXAMPLES OF THE ENTERIC ANTHROPONOSES AMONG LISTED BELOW

1) hepatitis A
2) salmonellosis
3) yersiniosis
4) poliomyelitis

16. LINKS OF THE EPIDEMICAL PROCESS ARE THE FOLLOWING

1) the source of the etiological agent of infection
2) the factors of transmission
3) the mechanism of transmission
4) the susceptible population (person)

17. TYPES OF SOURCES OF ETYOLOGICAL AGENT OF INFECTION INCLUDE

1) human beings
2) animals
3) insects
4) ticks
5) environment

18.VEHICLES OF TRANSMISSION INCLUDE

1) fomites
2) animals
3) insects
4) ticks
5) dust

19. NATURAL MECHANISMS OF TRANSMISSION COMPRISE

1) food-borne
2) water-borne
3) air-borne
4) vector-borne
5) fecal-oral

20. FECAL-ORAL MECHANISM OF TRANSMISSION CAN BE REALIZED BY THE FOLLOWING ROUTES (PATHWAYS)

1) water-borne route
2) food-borne route
3) arial-droplet spread
4) sexual pathway
5) contacts with fomites

21. AIR-BORNE MECHANISM OF TRANSMISSION MAY BE REALIZED BY THE FOLLOWING PATHWAYS

1) water-borne pathway
2) food-borne pathway
3) arial-droplet spread
4) contact with fomites
5) arial-dust pathway

22. CONTACT MECHANISM OF TRASMISSION INVOLVES

1) vector-bone route
2) direct contact route
3) aerial-dust route
4) indirect contact
5) transplacental pathway

23. MATCH THE MECHANISMS OF TRASMISSION LISTED IN THE LEFT COLUMN WITH THE PATHWAYS IN THE RIGHT COLUMN:

Mechanisms of transmission	*Etiologic agent can be transmitted by*
1. fecal-oral 2. air-borne 3. contact	a) dust route b) sexual pathway c) water-borne pathway d) food-borne pathway

24. MATCH THE TYPE OF FEATURES OF EPIDEMICAL PROCESS IN THE LEFT COLUMN WITH THE EPIDEMIOLOGIC FEATURES:

Features of the epidemical process	*Epidemiologic features*
1. quantitative 2. qualitative	a) incidence rate b) seasonal pattern c) prevalence rate d) secular trend (tendency) e) periodicity

25. MATCH THE GROUPS OF CONTROL MEASURES, DIRECTED TO THE DIFFERENT LINK OF EPIDEMICAL PROCESS AND CORRESPONDING CONTROL MEASURES:

Main groups of the control measures	*Control measures*
1.Measures, directed to the source of infection 2.Measures, directed to interrupt mechanism of transmission 3.Measures directed to the susceptible host	a) isolation b) chemoprophylaxis c) disinfection d) rodent control e) disinsection

	f) immunoprophylaxis g) sanitary and hygienic measures

Complete the sentences

26. THE INTERACTION OF THE POPULATION OF MICROORGANISM AND THE HUMAN POPULATION, DISPLAYING ITSELF (IN SOME ENGVIRONMENTAL CONDITIONS) AS MORBIDITY WITH DIFFERENT INTENSITY LEVEL IS_____ _____.

27. THE NATURAL HABITATS, WHERE BIOLOGICAL AGENTS (MICROBES) LIVE, MULTIPLIE, GROW AND THEN DISSEMINATE TO SUSCEPTIBLE HOSTS IS THE **_____ ___ _____.**

28. THE CHAIN OF CLINICAL CASES AND CARRIERS FOLLOWING EACH OTHER AND CONNECTED WITH EACH OTHER IS _____ _____.

29. THE CONCEPT OF EPIDEMIOLOGIC TRIANGLE STATES THAT, IN ORDER FOR A DISEASE PROCESS TO OCCUR, THERE MUST BE A UNIQUE COMBINATION OF EVENTS: A HARMFUL AGENT THAT COMES INTO CONTACT WITH A SUSCEPTIBLE HOST IN THE PROPER _____.

30. THE LAW "ABOUT THREE LINKS OF EPIDEMICAL PROCESS" STATES THAT, THE CONTINUOS EPIDEMICAL PROCESS IS MAINTAINED BY THE INTERACTION OF THE SOURCE OF INFECTION, THE _____ ___ _____ AND THE SUSCEPTIBLE INDIVIDUALS.

31. THE NUMBER OF SECONDARY CASES EXPECTED TO BE CAUSED BY A SINGLE, TYPICAL INFECTED INDIVIDUAL IN POPULATION WITH SOME LEVEL OF SUSCEPTIBILITY IS KNOWN AS _____.

Topic 2.

1. A PROPHYLACTIC DISINFECTION SHOULD BE PERFORMED WHEN
   1) a source of infection exists
   2) a source of infection is absent
   3) just after case revealing
   4) just after carrier revealing

2. THE INDICATION FOR A CURRENT DISINFECTION MAY BE
   1) before hospitalization of a case
   2) after hospitalization of a case
   3) during a treatment in the sanatorium
   4) after patient's recovery

3. DURATION OF CURRENT DISINFECTION
   1) all the incubation period of disease
   2) all the period of communicability of a patient
   3) all the period of disease manifestation
   4) before laboratory confirmation of the diagnosis

4. CURRENT DISINFECTION IN THE EPIDEMIC FOCUS IS USUALLY

CONDUCTED BY

1) the physician who diagnoses a case
2) the person who takes care of a patient
3) infection control specialist
4) any medical healthcare provider

5. FINAL DISINFECTION MUST BE CONDUCTED ONLY BY PROFESSIONALS (E.G., THE DISINFECTION STATION PERSONNEL) IN CASE OF

1) outbreak of typhoid fever
2) outbreak of meningococcal infection
3) epidemic of influenza
4) outbreak of chickenpox

6. DISINFECTION IS DIRECTED TO THE FOLLOWING LINK OF EPIDEMICAL PROCESS:

1) a source of infection
2) mechanisms of transmission
3) a susceptible host

7. GIVE AN EXAMPLE OF THE CRITICAL MEDICAL ITEM:

1) bedpans
2) surgical instruments
3) thermometer
4) anesthesia equipment

8. GIVE AN EXAMPLE OF THE SEMICRITICAL MEDICAL ITEM:

1) crutches
2) surgical instruments
3) implants
4) laryngoscope blades
5) clinical thermometer

9. FIND AN EXAMPLE OF THE NONCRITICAL MEDICAL ITEM:

1) implants
2) esophageal manometry probes
3) blood pressure cuffs
4) syringes

10. THE TERM “CRITICAL MEDICAL ITEM” MEANS

1) the item contacts the intact skin rather than mucous membranes
2) the item confers a high risk for infection if it is contaminated with any microbe
3) the item contacts mucous membranes and nonintact skin
4) the item comes in contact with intact skin and mucous membranes

11. THE TERM “SEMICRITICAL MEDICAL ITEM” MEANS

1) the item comes in contact with intact skin but not mucous membranes
2) the item confers a high risk for infection if it is contaminated with any microbe
3) the item contacts mucous membranes and nonintact skin
4) the item comes in contact with intact skin and mucous membranes

12. THE TERM “NONCRITICAL MEDCIAL ITEM” MEANS

1) the item comes in contact with intact skin but not mucous membranes
2) the item confers a high risk for infection if it is contaminated with any microbe

3) the item contacts mucous membranes and nonintact skin
4) the item comes in contact with intact skin and mucous membranes

13. HIGH-LEVEL DISINFECTION OF THE MEDICAL DEVICES PROVIDES
    1) destruction of all microorganisms, with the exception of heavy contamination by bacterial spores
    2) destruction of all microorganisms including bacterial spores
    3) killing most bacteria except *M. tuberculosis*
    4) inactivation of *M. tuberculosis,* most viruses and fungi.

14. INTERMEDIATE DISINFECTION OF THE MEDICAL DEVICES PROVIDES
    1) destruction of all microorganisms, with the exception of heavy contamination by bacterial spores
    2) destruction of all microorganisms including bacterial spores
    3) killing most bacteria with exception of *M. tuberculosis*
    4) inactivation of *M. tuberculosis,* most viruses and fungi

15. LOW-LEVEL DISINFECTION OF THE MEDICAL DEVICES PROVIDES
    1) heavy contamination by bacterial spores only
    2) destruction of all microorganisms including bacterial spores
    3) killing most bacteria with exception of M. tuberculosis
    4) inactivation of *M. tuberculosis,* most viruses and fungi

16. THE TRUE DEFINITION OF DISINFECTION IS
    1) a destruction of all forms of microbial life
    2) a process that eliminates many or all pathogenic microorganisms, except bacterial spores, on inanimate objects
    3) a destruction or inhibiting growth and replication of microorganisms on the surface and in the body
    4) a precautionary method used to prevent introduction of microbe into the patient's body

17. THE CORRECT DEFINITION OF STERILIZATION AMONG LISTED BELOW
    1) a destruction of all forms of microbial life
    2) a destruction or inhibiting growth and replication of microorganisms on the surface and in the body
    3) a process that eliminates many or all pathogenic microorganisms, except bacterial spores, on inanimate objects
    4) a precautionary method used to prevent introduction of microbe into the patient's body

18. THE CORRECT DEFINITION OF ANTISEPTIC MEASURES AMONG LISTED BELOW:
    1) a process that eliminates many or all pathogenic microorganisms, except bacterial spores, on inanimate objects
    2) a destruction of all forms of microbial life
    3) a destruction or inhibiting growth and replication of microorganisms on the surface and in the body
    4) a precautionary method used to prevent introduction of microbe into the patient's body

19. THE CORRECT DEFINITION OF ASEPTIC TECHNIQUES AMONG LISTED BELOW:
    1) a destruction of all forms of microbial life

2) a process that eliminates many or all pathogenic microorganisms, except bacterial spores, on inanimate objects
3) a destruction or inhibiting growth and replication of microorganisms on the surface and in the body
4) a precautionary method used to prevent introduction of microbe into the patient's body

Choose ALL correct answers:

20. A PROPHYLACTIC DISINFECTION IS TYPICALLY CARRIED OUT WHEN
    1) a source of infection is present
    2) a source of infection is absent
    3) during an outbreak
    4) a source of infection is unknown

21. THE MAIN TASKS OF PROPHYLACTIC DISINFECTION ARE THE FOLLOWING
    1) to prevent infecting the contacts
    2) to prevent spread of a pathogen out of the epidemic focus
    3) to prevent occurrence of infectious diseases
    4) to interrupt transmission in case of an unknown source of infection

22. THE MAIN TASKS OF DISINFECTION IN EPIDEMIC FOCUS ARE THE FOLLOWING
    1) to interrupt transmission within the epidemic focus
    2) to prevent occurrence of infections
    3) to prevent spread of a causative agent out of an epidemic focus
    4) to interrupt transmission if a source of infection exists but is unknown

23. CURRENT DISINFECTION SHOULD BE CONDUCTED
    1) in household isolation
    2) after discharging of the carrier from the hospital
    3) if the case is dead
    4) if a patient was hospitalized

24. FINAL DISINFECTION IS NECESSARY
    1) after hospitalization of a case
    2) after recovery
    3) in case of death
    4) in household isolation

25. AN APPROPRIATE MEASURE TO PREVENT THE INFECTION TRANSMISSION IN HOSPITALS AMONG LISTED BELOW
    1) prophylactic disinfection
    2) antiseptic measures
    3) general cleaning
    4) postexposure prophylaxis

26. PROPHYLACTIC DISINFECTION SHOULD BE PERFORMED
    1) in healthcare settings
    2) in hotels and hostels
    3) in airports
    4) in epidemic focus

27. CURRENT DISINFECTION SHOULD BE CONDUCTED
    1) in healthcare settings during the outbreak of infection

2) in hostels and hotels
3) in airports
4) in epidemic focus

28. THE EFFICACY OF DISINFECTION DEPENDS ON THE FOLLOWING FACTORS
1) a type of transmission mechanism
2) a herd immunity
3) concentration and potency of disinfectants
4) microbiological properties of pathogens

29. THE FINAL DISINFECTION SHOULD BE CONDUCTED BY PROFESSIONALS ONLY (E.G., PERSONNEL OF THE DISINFECTION FACILITY), IF THERE IS
1) epidemic focus of plague
2) epidemic focus of anthrax
3) epidemic focus of cholera
4) epidemic focus of pertussis

30. THE PROCESSING OF MEDICAL AND PATIENT-CARE ITEMS CONSIST OF THE FOLLOWING STAGES
1) sterilization
2) drying up
3) pre-sterilization cleaning
4) disinfection

31. THE CORRECT EXAMPLES OF THE MECHANIC DISINFECTION AMONG LISTED BELOW
1) cleaning
2) steam exposure
3) dusting
4) flash sterilization

32. THE CORRECT EXAMPLES OF THE PHYSICAL METHOD OF DISINFECTION AMONG LISTED BELOW
1) shaking out
2) disinfection by heat
3) ionizing radiation
4) filtration

33. THE CORRECT EXAMPLES OF THE PHYSICAL METHOD OF DISINFECTION AMONG LISTED BELOW
1) shaking out
2) ventilation
3) boiling
4) disinfection by fire

34. THE CORRECT EXAMPLES OF THE MECHANICAL METHOD OF DISINFECTION AMONG LISTED BELOW
1) disinfection by oxidizers
2) aeration
3) dusting
4) biothermal punching of waste products

35. A WIDE RANGE OF ANTIMICROBIAL ACTIVITY INCLUDES

1) fungicidal effect
2) sporicidal effect
3) virulicidal effect
4) destruction of helminthes

36. FEATURES OF CHLORINE-CONTAINING COMPOUNDS, WHICH ARE CONSIDERED TO BE THEIR GOOD POINTS

1) a wide spectrum of microbicidal action
2) surface disinfection
3) no interference with protein load
4) a good solubility in water

37. DISADVANTAGES OF ORGANIC CHLORINE-CONTAINING DISINFECTANTS AMONG LISTED BELOW ARE THE FOLLOWING

1) damage to the medical equipment
2) good stability in concentration
3) can cause local skin allergic reactions
4) restricted spectrum of biocidal activity

38. ADVANTAGES OF ORGANIC CHLORINE-CONTAINING DISINFECTANTS AMONG LISTED BELOW ARE THE FOLLOWING

1) good solubility in water
2) low cost
3) possibility of the surface disinfection
4) no damage to the equipment

39. DISADVANTAGES OF ALDEHYDES AMONG LISTED BELOW ARE THE FOLLOWING

1) restricted spectrum of biocidal activity
2) dangerous for life
3) irritating odor
4) carcinogenic to humans

40. THE GOOD POINTS OF ALDEHYDES AMONG LISTED BELOW ARE THE FOLLOWING

1) absence of significant odor relatively cheap
2) can be both disinfectant and sterilant
3) noncorrosive to rubber and plastics
4) relatively low prices

41. ADVANTAGES OF OXYGEN-CONTAINED DISINFECTANTS AMONG LISTED BELOW ARE THE FOLLOWING

1) wide germicidal activity
2) can be a sterilant
3) noncorrosive to metals
4) low prices

42. DISADVANTAGES OF OXYGEN-CONTAINED DISINFECTANTS AMONG LISTED BELOW

1) expensive
2) corrosive action to copper, brass
3) their by-products are not environment-friendly
4) damage eyes and skin when intacted

43 THE GOOD POINTS OF QUATERNARY AMMONIUM COMPOUNDS ARE THE FOLLOWING

1) low toxicity levels
2) lack of odor
3) good cleaners
4) sporicidal action

44. DISADVANTAGES OF QUATERNARY AMMONIUM COMPOUNDS ARE THE FOLLOWING

1) a wide spectrum of bactericidal activity
2) a restricted spectrum of biocidal activity
3) resistance of pathogens
4) expensive products

45. MATCH EACH HOSPITAL ZONE LISTED IN THE LEFT COLUMN WITH THE APPROPRIATE DISINFECTION REQUIREMENTS IN THE RIGHT COLUMN:

Type of preparation	*Raw material for manufacturing a preparation*
1. Zone A	a) use of the detergent solutions
2. Zone B	b) use of detergent/disinfectant solutions, with separate cleaning of equipment
3. Zone C	c) normal domestic cleaning
4. Zone D	d) cleaning in intensive care units, delivery rooms

46. MATCH THE MEASURES LISTED IN THE LEFT COLUMN WITH ITS FEATURES IN THE RIGHT COLUMN:

Preventive measure	*Features*
1. Disinfection	a) maintain the asepsis stage
2. sterilization	b) destroy bacterial spores
3. antiseptic measures	c) inhibit the growth of microorganisms
4. aseptic techniques	d) cover inanimate objects

Complete the sentences

47. TO EXPUNGE ANY HINT OF VISIBLE SOIL AND DUST IN HOSPITAL ENVIRONMENT (WALLS, WINDOWS, BEDS ETC) IS THE OBJECTIVE OF _____ .

48. ANY PROCEDURE THAT REDUCES TO A SIGNIFICANT DEGREE THE MICROFLORA OF SKIN OR MUCOUS MEMBRANE IS CALLED _____ .

49. THE EXCLUSION OF ALL MICROORGANISMS BEFORE THEY CAN CONTAMINATE A STERILE FIELD DURING SURGERY IS THE AIM OF _____ .

50. A CHEMICAL THAT CAN BE APPLIED TO INANIMATE OBJECTS TO ELIMINATE CAUSATIVE AGENTS WITH THE EXCEPTION OF SPORES IS CALLED _____ .

51. A SUBSTANCE THAT TENDS TO INHIBIT THE GROWTH AND REPRODUCTION OF MICROORGANISMS WHEN APPLIED TO LIVING TISSUE IS CALLED _____ .

52. MEASURES THAT PREVENT THE PENETRATION OF RODENTS IN THE HOUSE ARE NAMED _____ RODENT CONTROL.

Topic 3

1. LIVE VACCINES INDUCE SUCH IMMUNE RESPONSE AS
    1) natural active immunity
    2) acquired active immunity
    3) natural passive immunity
    4) acquired passive immunity

2. KILLED VACCINES LEAD TO
    1) natural active immunity
    2) acquired active immunity
    3) natural passive immunity
    4) innate immunity

3. LIVE VACCINES CREATE
    1) natural active immunity
    2) acquired passive immunity
    3) artificial active immunity
    4) artificial passive immunity

4. INACTIVATED VACCINES CREATE
    1) natural active immunity
    2) acquired passive immunity
    3) artificial active immunity
    4) artificial passive immunity

5. AN APPROPRIATE DEFINITION OF A VACCINE IS
    1) a suspension of bacteria or viruses or fractions thereof, administered to induce immunity
    2) a sterile solution of human antibodies prepared by special method
    3) a modified bacterial toxin that has been rendered nontoxic but that retains the ability to form immunity
    4) a solution of antibodies derived from the serum of animals immunized with specific antigens

6. AN APPROPRIATE DEFINITION OF A TOXOID IS
    1) a suspension of bacteria or viruses or fractions thereof, administered to induce immunity
    2) a modified bacterial toxin that has been rendered nontoxic but that retains the ability to form immunity
    3) a sterile solution of human antibodies prepared by special methods
    4) a solution of antibodies derived from the serum of animals immunized with specific antigen

7. AN APPROPRIATE DEFINITION OF AN ANTITOXIN IS
    1) a suspension of bacteria or viruses or fractions thereof, administered to induce immunity
    2) a modified bacterial toxin that has been rendered nontoxic but that retains the ability to form immunity
    3) a sterile solution of human antibodies prepared by special methods
    4) a solution of antibodies derived from the serum of animals immunized with specific antigens

8. THE PRIMARY SERIES OF VACCINATION WITH OPV (IPV) CONSIST OF

1) 1 dose
2) 2 doses
3) 3 doses
4) 4 doses

9. AN APPROPRIATE IMMUNIZATION RECOMMENDATION AGAINST MEASLES IS
   1) a single dose MMR vaccination schedule
   2) a two-dose MMR vaccination schedule
   3) a three-dose MMR vaccination schedule
   4) vaccination is not obligatory

10. AN APPROPRIATE IMMUNIZATION SCHEDULE AGAINST HEPATITIS B INCLUDES
   1) intramuscular injections at 0,1, and 6 months
   2) intramuscular injections at 0,3, and 6 months
   3) intramuscular injections at 0,2,3, and 12 months
   4) intramuscular injections at 0,1,2, and 24 months

11. A PROTECTIVE LEVEL FOR DIPHTHERIA (IN ELISA) IS THE FOLLOWING ANTIBODY CONCENTRATION
   1) 0.03 IU/ml
   2) 0.06 IU/ml
   3) 0.01 IU/ml
   4) 0.02 IU/ml

12. AN ANTIBODY CONCENTRATION WHICH IS CONSIDERED TO BE A PROTECTIVE LEVEL FOR TETANUS (IN ELISA) IS
   1) 0.03 IU/ml
   2) 0.06 IU/ml
   3) 0.01 IU/ml
   4) 0.02 IU/ml

13. AN ANTIBODY CONCENTRATION WHICH IS CONSIDERED TO BE A PROTECTIVE LEVEL FOR HEPATITIS B (IN ELISA) IS
   1) 0.03 IU/ml
   2) 0.06 IU/ml
   3) 0.01 IU/ml
   4) 0.02 IU/ml

14. THE ANTIBODY CONCENTRATION CONSIDERED TO BE A PROTECTIVE LEVEL FOR MEASLES IS
   1) 1:20
   2) 1:10
   3) 1:8
   4) 1:16

15. THE OBJECTIVE OF BOOSTER IMMUNIZATIONS IS
   1) to produce the protection at the first time of vaccination
   2) to increase the protection already given by a primary immunization
   3) to increase the protection already given by several revaccinations
   4) to avoid adverse events after further immunizations

16. AN APPROPRIATE DEFINITION OF HERD IMMUNITY IS THE FOLLOWING:
   1) a post-infection immunity of a specified group of people

2) an immunity of a specified group of people caused by vaccination
3) a protection of population independent on a way of immunization
4) a latent immunization of a specified group of people

17. AN APPROPRIATE SCHEME OF IMMUNIZATION FOR MUMPS (ACCORDING TO RUSSIAN SCHEDULE) IS THE FOLLOWING
1) at 12 months, 6 years
2) at 10 months, 6 years
3) at 6 months
4) at 12-13 months

18. AN APPROPRIATE SCHEME OF IMMUNIZATION FOR DIPHTHERIA (ACCORDING TO RUSSIAN SCHEDULE) IS THE FOLLOWING:
1) vac. – 3, 4.5, 6 mo; revac. – 18 mo, 7, 14 years
2) vac. – 3, 4.5, 6 mo; revac. – 18 mo, 7, 14 years, each 10 years
3) vac. – 3, 4.5 mo; revac. – 18 mo, 7, 14 years, each 10 years
4) vac. – 3, 4.5, 6 mo; revac. – 18 months

19. THE VACCINE CURRENTLY USED TO PREVENT HEPATITIS B IS CONSTITUTED BY
1) conjugate of HBsAg and a bacterial toxoid
2) HBsAg isolated from chronic carriers
3) inactivated hepatitis B virus
4) recombinant HBsAg

20. ABILITY OF VACCINE TO PREVENT OUTCOMES OF INTEREST IN THE "REAL WORLD" IS CALLED
1) vaccine efficacy
2) vaccine effectiveness
3) vaccine efficiency
4) vaccine potency

21. PERCENTAGE REDUCTION IN DISEASE INCIDENCE IN A VAC- CINATED GROUP COMPARED TO AN UNVACCINATED GROUP UNDER RANDOMIZED CONTROL STUDY CAN BE DEFINED
1) vaccine efficacy
2) vaccine effectiveness
3) vaccine effciency
4) vaccine potency

22. THE RESPIRATORY INFECTION, WHICH IS LIQUIDATED BY THE WORLD IMMUNIZATION PROGRAMME AND SURVEILLANCE
1) measles
2) pertussis
3) influenza
4) smallpox
5) chickenpox

Choose ALL correct answers:

23. EXAMPLES OF THE LIVE VACCINES AMONG LISTED BELOW:
1) against measles
2) against poliomyelitis
3) against rabies
4) against hepatitis A

24. EXAMPLES OF THE INACTIVATED VACCINES AMONG LISTED BELOW:
    1) against poliomyelitis
    2) against rabies
    3) against hepatitis B
    4) against measles

25. ARTIFICIAL IMMUNITY OCCURS WHEN
    1) individuals are immunized with vaccines
    2) individuals suffered from an infectious disease
    3) individuals are immunized with immunoglobulins
    4) individuals are immunized with serum

26. NATURAL IMMUNITY OCCURS WHEN
    1) a person is immunized with toxoids;
    2) a person is immunized with live vaccines;
    3) a person is immunized by minimal dose of infective agent;
    4) a person is exposed to biologic agents as he/ she suffers from infection.

27. THE CONTRAINDICATIONS FOR IMMUNIZATION WITH OPV ARE THE FOLLOWING:
    1) patients with immunodeficiency
    2) people with evolving neurologic disorders
    3) household contacts of immunodeficient patients
    4) mild respiratory diseases without fever

28. THE CONTRAINDICATIONS FOR IMMUNIZATION WITH MMR ARE
    1) pregnancy
    2) history of anaphylactic reactions to neomicines
    3) postexposure prophylaxis
    4) respiratory diseases with fever

29. PHASES OF IMMUNE RESPONSE TO VACCINATION INCLUDE
    1) plateau phase
    2) lag phase
    3) log phase
    4) decline phase

30. APPROPRIATE TIMING TO GIVE IMMUNIZATION FOR HEPATITIS B (ACCORDING TO RUSSIAN SCHEDULE) ARE
    1) 0, 1, 4
    2) 0, 1, 6
    3) 0, 1, 2, 12
    4) 0, 1, 2, 24

31. INFECTIONS, WHICH ARE ACCESSIBLE FOR THE SCHEDULE CHILD IMMUNOPROPHYLAXIS IN RUSSIA
    1) rotaviral infection
    2) pertussis
    3) mumps
    4) scarlet fever

32. MATCH THE PREPARATIONS LISTED IN THE LEFT COLUMN WITH THE RAW MATERIAL IN THE RIGHT COLUMN:

Type of immunoglobulin	*Raw material for manufacturing a preparation*
1. heterologous 2. homologous	a) serum (plasma) of the blood donors; b) serum (plasma) of hyper-immunized horses' blood; c) serum of hyper-immunized animals; d) placental blood (of women recently confined).

33. MATCH THE TYPE OF IMMUNITY IN THE LEFT COLUMN WITH THE WAY OF IMMUNITY ACQUISITION:

Type of immunity	*Way of immunity acquisition:*
1. passive intrinsic 2. passive artificial	a) injection of heterologous immunoglobulin; b) transmission of antibodies from mother to infant; c) injection of homologous immunoglobulin; d) injection of heterologous serum.

34. MATCH THE TYPE OF IMMUNITY IN THE LEFT COLUMN WITH THE WAY OF IMMUNITY ACQUISITION:

Type of immunity	*Way of immunity acquisition*
1. active natural 2. active artificial	a) convalescents; b) subclinical form of infection; c) usage of live vaccine; d) usage of inactivated vaccine.

Complete the sentences

35.THE MEASURES FOR PREVENTION AND RESTRICTION OF THE SPREAD OF THE INFECTIOUS DISEASES, ERADICATION SOME OF DISEASES BY CONDUCTING PROPHYLACTIC IMMUNIZATION IS_____ .

36. THE PROPORTION OF CERTAIN AGED CHILDREN, WHO WAS VACCINATED, TO COMMON AMOUNT OF CHILDREN OF A GIVEN AGE, BEING EXPRESSED IN PERCENTAGE, IS CALLED _____ .

37. THE SHARE OF PERSONS, WITH SPECIFIC IMMUNITY TO A CERTAIN INFECTION IN THE ESTIMATED GROUP, IS _____ .

38. THE LEVEL OF POPULATION IMMUNITY NECESSARY TO INTERRUPT TRANSMISSION IS CALLED _____.

Topic 4

1. THE SOURCE OF INFECTION FOR HEPATITIS B IS

1) cattle
2) man
3) primates
4) rodents
5) birds

2. THE MAXIMUM INCUBATION PERIOD OF HB LASTS

1) 5 weeks
2) 8 weeks
3) 3 months
4) 6 months
5) 10 months

3. IMMUNIZATION AGAINST HEPATITIS B IS PERFORMED BY

1) live attenuated vaccine
2) recombinant bioengineering vaccine
3) toxoid
4) bacteriophages
5) antiserum

4. A CONTRAINDICATION TO IMMUNIZATION AGAINST HEPATITIS B CAN BE

1) hypersensitivity to eggs or gelatin
2) anaphylactic or anaphylactoid reactions to penicillin
3) patients receiving immunosuppressive replacement therapy
4) individuals with benign neoplasms

Choose ALL correct answers:

5. HEPATITIS B VIRUS IS CONTAINED IN THE FOLLOWING BODY FLUIDS

1) blood
2) saliva
3) semen
4) vaginal secretion
5) respiratory secretion

6. HEPATITIS B IS TRANSMITTED BY THE FOLLOWING MECHANISMS

1) fecal-oral
2) parenteral
3) vertical
4) sexual intercourse
5) vector-borne

7. THE FOLLOWING MEASURES PREVENT PEOPLE FROM INFECTING HEPATITIS B

1) routine immunization
2) antitoxic serum
3) use of mechanical contraceptives
4) eradication of the intravenous drug use
5) isolation of the patients

Section 3

1. THE MOST COMPLETE DEFINITION OF HEALTHCARE-ASSOCIATED INFECTION IS THE FOLLOWING

1) it is any clinically evident infectious disease, affecting a patient as a result of healthcare services during hospitalization;
2) it is any clinically evident infection, affecting a patient as a result of healthcare services in out-patient department ;
3) it is any clinically evident infectious disease, affecting healthcare personnel due to the professional activity performed;
4) it is any clinically evident infection affecting as a result of healthcare services, as well as healthcare providers due to the professional activity performed.

2. ACCORDING TO THE RESERVOIR OF CAUSATIVE AGENT *HAI* CAN BE CLASSIFIED AS

1) anthroponosis and anthropozoonoses
2) zoonoses and sapronoses
3) person-to-person infections

4) anthroponosis, zoonoses and sapronoses.

3. AN EXAMPLE OF THE NOSOCOMIAL ANTHROPONOSIS IS
1) hepatitis E
2) shigellosis
3) salmonellosis
4) leptospirosis

4. AN EXAMPLE OF THE NOSOCOMIAL ZOONOSIS CAN BE
1) recrudescent typhus
2) malaria
3) brucellosis
4) legionellosis

5. THE FOLLOWING INFECTIOUS DISEASE REFERS TO URINARY TRACT INFECTIONS:
1) bursitis
2) cystitis
3) phlebitis
4) sepsis

6. THE FOLLOWING DISEASE REFERS TO RESPIRATORY ORGAN INFECTIONS
1) catheter-associated pneumonia
2) syringe-associated pneumonia
3) ventilator-associated pneumonia
4) mask-associated pneumonia

7. THE FOLLOWING CASE CAN BE CLASSIFIED AS A SURGICAL SITE INFECTION OF A SUPERFICIAL INCISION
1) infiltration of the postoperative wound
2) purulent fistula, emerged instead of the replaced drainage
3) abdominal cavity abscess following cholecystectomy
4) abdominal cavity abscess following appendectomy

8. A DISEASE OCCURRED DUE TO ACTIVATION OF THE PATHOGEN ORIGINATED FROM A CHRONIC INFECTIOUS FOCUS IN THE BODY IS CALLED
1) cross-infection
2) exogenous infection
3) superinfection
4) self-infection

9. THE RISK OF PURULENT SEPTIC INFECTION IN “CONTAMINATED” OPERATIONS REACHES
1) 3-5%
2) 5-9%
3) 15-20%
4) > 20%

10. METHICILLIN-RESISTANT STRAINS ARE DISTRIBUTED AMONG THE FOLLOWING MICROORGANISMS
1) *Micrococcus sp*
2) *Staphylococcus sp*

3) *Enterococcus sp*
4) *Streptococcus sp*

Choose ALL correct answers:

11. THE CHARACTERISTIC FEATURES OF HOSPITAL STRAINS ARE
1) absence of resistance to disinfectants
2) polyresistace to antibiotics
3) low ability to colonization
4) high adhesion to surfaces

12. THE CRUCIAL CAUSES OF *HAIs* HIGH MORBIDITY ARE
1) a great number of patients hospitalized
2) a wider spectrum of indications to operative treatment
3) increase of the extent and traumaticity of operations and manipulations
4) intensive use of antibiotics, disinfectants, antiseptics

13. IMPORTATIONS OF INFECTION COMPRISE THE FOLLOWING SITUATIONS
1) admission of a patient in the incubation period
2) admission of a patient with a documented infectious disease
3) admission of a patient with a wrong diagnosis
4) admission of a patient autoimmune pathology

14. ACCORDING TO THE AFFECTED COHORT *HAI* CAN BE CLASSIFIED AS
1) HAI of medical staff
2) HAI of patients hospitalized
3) HAI of outpatients attending medical centers
4) HAI of neonates

15. *HAIs* INCLUDE THE FOLLOWING GROUPS OF THE DISEASE
1) surgical site infections
2) urinary tract infections
3) skin and soft tissue infections
4) lower respiratory tract infections

16. RESPIRATORY TRACT INFECTIONS INCLUDE THE FOLLOWING DISEASES
1) nosocomial bronchitis
2) community-acquired pneumonia
3) hospital-acquired pleuritis
4) nosocomial tracheatis

17. SUPPURATION HAPPENED IN THE SITE OF VESSEL CATHETER CAN LEAD TO THE FOLLOWING STATES
1) angioma
2) phlebitis
3) lymphadenitis
4) lymphangitis

18. THE FOLLOWING INFECTIONS CAN BE REVEALED IN PATIENTS RENDERING DOMICILIARY MEDICAL AID
1) phlegmona
2) postinjection abscess
3) pyodermia

4) psoriasis

19. MANDATORY DIFFERENTIAL DIAGNOSTIC CRITERIA OF EXOGENOUS *HAI* INCLUDE

1) pathogens are characterized by the different resistance types
2) hospital purulent septic infections are polyetiologic
3) hospital purulent infections occur due to “clean” operations
4) rather high efficiency of sterilizing equipment

20. THE FOLLOWING BACTERIA CAN CAUSE *HAI*

1) *Serratia sp*
2) *Moraxella sp*
3) *Aspergillus sp*
4) *Klebsiella sp*

21. SOURCES OF HEALTHCARE-ASSOCIATED INFECTIONS CAN BE

1) clinical cases
2) carriers among patients
3) medical workers
4) visitors

22. FACTORS INFLUENCING THE DEVELOPMENT OF NOSOCOMIAL INFECTIONS

1) age and sex
2) annual income
3) character of operation
4) antibiotic preoperative therapy
5) presence of siblings

23. THE MAIN TASKS OF SURVEILLANCE FOR HAIS ARE THE FOLLOWING

1) identifying the trends of epidemical process
2) revealing risk factors of HAI
3) improving prevention and infection control
4) evaluating epidemiologic situation in hospital

24. THE FOLLOWING MICROORGANISMS ARE THE TYPICAL CAUSATIVE AGENTS OF NOSOCOMIAL SALMONELLOSIS

1) *Salmonella Enteritidis*
2) *Salmonella Typhimurium*
3) *Salmonella Typhi*
4) *Salmonella Infantis*
5) *Salmonella Izangi*

25. MATCH THE GROUP OF *HAIs* IN THE LEFT COLUMN WITH EXAMPLES IN THE RIGHT COLUMN

Healthcare-associated infections	*Examples*
1. procedure-associated infections 2. device-associated infections	a) catheter-associated urinary tract infection b) ventilator-associated pneumonia c) injection-associated infections d) catheter-associated urinary tract infection e) posthemotransfusion infecions

26. MATCH THE MECHANISM OF TRANSMISSION IN THE LEFT COLUMN WITH FACTORS PROMOTING IT IN THE RIGHT COLUMN:

Mechanisms of transmission	*Factors promoting spread of HAI*
1. fecal-oral mechanism 2. airborne mechanism 3. contact mechanism 4. artificial mechanism	a) endoscopy b) low personal hygiene of cooks c) artificial lung ventilation d) carriers of salmonella e) infected bed linen f) ventilation system g) blood transfusions h) challenges in the hospital catering system i) aerial-dust way j) insufficient sterilization of surgical instruments k) patient care items

Complete the sentences

27. A PART OF EPIDEMIOLOGY OF INFECTIOUS DISEASES, WHICH INVESTIGATES THE DETERMINANTS OF INFECTIONS IN HOSPITALS AND APPLIES THIS KNOWLEDGE FOR PROPHYLAXIS OF SPREAD OF HEALTHCARE-ASSOCIATED INFECTIONS IS CALLED _____ _____.
28. A LOCALIZED CONDITION RESULTING FROM AN ADVERSE REACTION TO THE PRESENCE OF AN INFECTIOUS AGENT OR ITS TOXIN THAT WAS NOT FOUND TO BE PRESENT OR INCUBATING AT THE TIME OF ADMISSION UNLESS THE INFECTION WAS RELATED TO A PREVIOUS ADMISSION TO THE SAME SETTING IS _____ .
29. INFECTIOUS DISEASES WHICH OCCURRED BEFORE THE ADMISSION TO A GIVEN HEALTHCARE SETTING (HOSPITAL) AND REVEALED ON ADMISSION OR AFTER IT IS CALLED _____.
30. _____ _____ OCCURS WHEN A CAUSATIVE AGENT IS BROUGHT INTO THE BODY FROM OUTSIDE MEDIATED BY TRANSMISSION FACTORS.

If the bank of assessment tools for conducting current control and mid-term assessment of students in this discipline is presented on the Educational Portal of the PRMU, specify a link to this electronic resource.

link https://sdo.pimunn.net/course/view.php?id=713

A n s w e r s:

Section 1
Topic 1
1-1; **2**-2; **3**-4; **4**-3; **5**-2; **6**-1; **7**-1,3,4,5; **8**-1,2; **9**-2,3,4; **10**- 1bd 2ae 3cf.
Topic 2
1-2; **2**-3; **3**-1; **4**-3; **5**-2; **6**-4; **7**-3; **8**-1,2,3,4; **9**-1,4; **10**- 2,4; **11**-2,4; **12**-1,3,4; **13**-1,2,3,4; **14**-1,3,4; **15**- 1ad 2bce; **16**- 1d 2a 3b; **17**- observational; **18**-interventional; **19**-randomization;

Section 2
Topic 1

1-2; **2**-4; **3**-1; **4**-1; **5**-2; **6**-3; **7**-2; **8**-1; **9**-2; **10**- 3; **11**-2,4; **12**-2,3; **13**-1,3; **14**-2,3,4; **15**- 1,2,4; **16**- 1,3,4; **17**- 1,2,5; **18**-1,3,4,5; **19**-3,4,5; **20**-1,2,5; **21**-3,5; **22**-2,4; **23**- 1cd2a3b; **24**- 1ac 2bde; **25**- 1ad 2ceg 3bf; **26**- epidemical process; **27**- source of infection; **28**- epidemical process; **29**- environment; **30**- mechanism of transmission; **31**- reproductive number.

Topic 2

1-2; **2**-1; **3**-2; **4**-2; **5**-1; **6**-2; **7**-2; **8**-4; **9**-3; **10**- 2; **11**-3; **12**-1; **13**-1; **14**-4; **15**- 3; **16**- 2; **17**- 1; **18**-3; **19**-4; **20**-2,4; **21**-3,4; **22**-1,3; **23**- 1,2; **24**- 1,2,3; **25**- 1,2,3; **26**- 1,2,3; **27**- 1,4; **28**- 1,3,4; **29**- 1,2,3; **30**-1,3,4; **31**-1,3; **32**-2,3; **33**-3,4; **34**-1,2,3; **35**-1,2,3; **36**-1,2; **37**-1,3; **38**-1,2,3; **39**-2,3,4; **40**-2,3; **41**-1,2; **42**-1,2,4; **43**-1,2,3; **44**-2,3; **45**-1c 2a 3b 4d; **46**-1d 2b 3c 4a; **47**-cleaning; **48**-antisepsis; **49**-aseptic technique; **50**-disinfection; **51**-antiseptic; **52**-prophylactic.

Topic 3

1-2; **2**-2; **3**-3; **4**-3; **5**-1; **6**-2; **7**-3; **8**-3; **9**-1; **10**- 1; **11**-1; **12**-1; **13**-3; **14**-2; **15**- 3; **16**- 3; **17**- 1; **18**-2; **19**-4; **20**-2; **21**-1; **22**-4; **23**- 1,2; **24**- 1,2,3; **25**- 1,3,4; **26**- 3,4; **27**- 1,3; **28**- 1,2,4; **29**-2,3; **30**-2,3; **31**-2,3; **32**-1bc 2ad; **33**-1b 2acd; **34**-1ab 2cd; **35**-immunoprophylaxis; **36**-immunization coverage; **37**-herd immunity; **38**- herd immunity threshold.

Topic 4

1-2; **2**-4; **3**-2; **4**-1; **5**-1,2,3,4; **6**-2,3,4; **7**-1,2,3,4.

Section 3

A n s w e r s: **1**-4; **2**-4; **3**-2; **4**-3; **5**-2; **6**-3; **7**-1; **8**-4; **9**-3; **10**-2; **11**-2,4; **12**-2,3,4; **13**-1,3; **14**-1,2,3,4; **15**- 1,2,3,4; **16**-1,3,4; **17**-2,3,4; **18**-1,2,3; **19**-1,2,3; **20**-1,2,4; **21**-1,2,3,4; **22**-1,3,4; **23**- 1,2,3,4; **24**-2,4; **25**- 1ce 2abd; **26**- 1bdh 2fi 3aek 4cgj; **27**- hospital epidemiology; **28**-healthcare-associated infection; **29**- brought infection; **30**-exogenous infection.

5. Criteria for evaluating learning outcomes

For the credit

Learning outcomes	**Evaluation criteria**	
	Not passed	**Passed**
Completeness of knowledge	The level of knowledge is below the minimum requirements. There were bad mistakes.	The level of knowledge in the volume corresponding to the training program. Minor mistakes may be made
Availability of skills	Basic skills are not demonstrated when solving standard tasks. There were bad mistakes.	Basic skills are demonstrated. Typical tasks have been solved, all tasks have been completed. Minor mistakes may be made.
Availability of skills (possession of experience)	Basic skills are not demonstrated when solving standard tasks. There were bad mistakes.	Basic skills in solving standard tasks are demonstrated. Minor mistakes may be made.
Motivation (personal attitude)	Educational activity and motivation are poorly expressed, there is no willingness to solve the tasks qualitatively	Educational activity and motivation are manifested, readiness to perform assigned tasks is demonstrated.
Characteristics of competence formation*	The competence is not fully formed. The available knowledge and skills are not enough to solve practical (professional) tasks. Repeated training is required	The competence developed meets the requirements. The available knowledge, skills and motivation are generally sufficient to solve practical (professional) tasks.
The level of	Low	Medium/High

competence formation*		

***** - *not provided for postgraduate programs*

For testing:

Mark "5" (Excellent) - points (100-90%)
Mark"4" (Good) - points (89-80%)
Mark "3" (Satisfactory) - points (79-70%)

Less than 70% – Unsatisfactory – Mark "2"

Developer:
Sergeeva A.V., Associate Professor, Department of Epidemiology, Microbiology and Evidence-Based Medicine

Date "_____" _____ 202__