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Assessment tools for midterm assessment

Hygiene (4-5 SEMESTER)

Code, discipline	31.05.01 General Medicine
Qualification	General Medicine
Form of education	Full-time
Designer Department	Morphology and physiology
Graduate Department	Internal Diseases

TYPICAL TASKS FOR THE CONTROL WORK

CONTROL WORK

List of referats – 4th term:

1. Urbanization: positive and negative features
2. Functional areas of the city and building principles
3. Features of the formation of the urban environment
4. Hygienic features of atmospheric air in large cities
5. The microclimate of the city
6. Noise in the city and prevention of its harmful effects
7. Problems of water supply in large cities
8. Issues of sanitary cleaning of cities
9. Health status of urban and rural population: comparative characteristics
10. The main measures to improve the environmental (urban) environment
11. Hygienic features of the layout of northern cities
12. Hygiene of residential buildings
13. Hygienic requirements for the layout of higher educational institutions
14. Hygienic requirements for student dormitories
15. Hygienic requirements for the layout of sports complexes and stadiums
16. Hygienic requirements for public baths and laundries
17. Hygienic requirements for theaters

List of referats – 5th term:

1. Types of professional activity of a person. Physiological reactions to the work performed. The severity and intensity of work. Fatigue, its types and prevention.
2. Factors of the production environment and their classification
3. Industrial hazards, their classification. Comprehensive assessment of working conditions.
4. Dust factor of the production environment, dust classification. Properties of dust that determine its pathogenicity. Occupational diseases of dust etiology.
5. Noise and vibration as harmful factors of the production environment. The effect on the body. Occupational diseases. Preventive measures.
6. Diseases of the population associated with the use of substandard water. Prevention of water epidemics. Rationing of the qualitative composition, as one of the means of prevention.

7. Prevention of endemic diseases associated with the peculiarities of the microelement and salt composition of water. Rationing of the qualitative composition of water, as one of the means of preventing diseases.
8. Modern problems of water supply in populated areas. Sanitary and hygienic requirements for the organization of centralized water supply.
9. Sanitary protection of reservoirs. Its importance in improving the human environment
10. The chemical composition of atmospheric air sources of its pollution. The main directions of sanitary protection of atmospheric air.
11. Physical properties of atmospheric air. Complex effect on the body. Normalization of the microclimate.
12. The impact of weather conditions on health. Prevention of meteorotropic diseases.
13. The use of natural climatic factors for health and therapeutic purposes.
14. Hygienic problems of the northern territories.

TYPICAL TASKS FOR CREDIT (4th term)

The task on the credit contains 2 theoretical questions and a list of practical skills.

The task for the indicators of the evaluation of the descriptor «Knows»	Task type
<p><i>Formulate detailed answers to the following theoretical questions:</i></p> <p>The concept of climate and microclimate. Types of weather. The main factors</p> <p>Climate formation.</p> <p>Acclimatization as a complex socio-biological adaptation process human adaptation to new climatic and geographical conditions.</p> <ol style="list-style-type: none"> 1. Features of human adaptation in the desert, in the north, to the highlands, to increased atmospheric pressure. 2. Thermoregulation of the human body. 3. The concept of "optimal microclimatic conditions". 4. Features of thermoregulation of the patient's body. 5. Hygienic approaches to the establishment of optimal microclimate parameters in Hospitals. 6. The effect of air temperature on the body. 7. Physiological and hygienic values of humidity and air mobility. 8. The complex impact of meteorological factors and assessment methods. 9. General hygienic requirements for the microclimate of premises of medical and preventive organizations. 10. Study of temperature, humidity and air mobility. Devices and rules for working with them. 11. Study of the body's reactions to the action of microclimatic factors. 12. The chemical composition of atmospheric air and its hygienic significance. 13. Harmful gaseous and chemical impurities in the air. 14. The physiological and hygienic value of carbon dioxide and the method of its determination. 15. Sanitary and bacteriological examination of the air. 16. Hygienic requirements for hospital ventilation. The concept of "conditioning" air. 17. Determination of the multiplicity of air exchange during natural ventilation. 	theoretical
<ol style="list-style-type: none"> 18. The influence of processes occurring in the sun on health and vital activity human. 19. Composition of the solar spectrum, hygienic and biological characteristics of its individual parts (infrared rays, visible spectrum 	

<p>rays, UV spectrum)</p> <ol style="list-style-type: none"> 20. Sunstroke and its prevention. 21. Conditions conducive to the development of solar starvation. 22. Prevention of solar starvation in children. 23. The concept of "illumination", units of illumination. Factors affecting the level of Indoor lighting. 24. The concept of insolation, its hygienic significance. Measuring instruments 25. Illumination. 26. Types of insolation regime for various medical and preventive 27. institutions institutions. 28. The study of natural and artificial illumination (KEO, SK, angles light ing, depth of laying, calculation method for determining artific ia l illumination) 29. Hygienic standards of KEO, SK, etc. 30. Sanitary and hygienic, physiological, industrial, 31. Agricultural and epidemiological significance of water. 32. The problem of pollution of the biosphere and the shortage of clean water. 33. Water consumption standards. Water supply sources and their sanitary assessment. 34. The causes of anthropogenic pollution of reservoirs. 35. Requirements for the quality of drinking water (SanPiN). 36. Local and centralized water supply. 37. The concept of biological provinces and endemic diseases. 38. Biologically active elements in drinking water, their hygienic assessment. 39. Types of water analysis. Rules for sampling water for analysis. 40. The hygienic significance of the physical and organoleptic properties of water and their Definitions. 41. Physiological and hygienic values of water hardness and the essence of its method Definitions. 42. Biogenic elements (nitrogen, ammonia, nitrates, nitrites) their significance and methods Qualitative definition. 43. Chlorides, sulfates, iron salts, their significance and methods of qualitative determination. 44. Method of purification and disinfection of water. 45. Hygienic basics of water supply for troops. Responsibilities of the services in providing Troops with water. 46. Hygienic requirements for drinking water in military field conditions. 47. Quantitative norms of water supply. 48. Standard means of water quality control, storage and transportation. 49. Features of water purification and disinfection in the field. Time sheets Water purification products. 50. Means of storage and disinfection of individual water supplies. 51. Characteristics of natural and artificial biogeochemical provinces. 52. Migration and circulation of trace elements in the biosphere. 53. Hygienic requirements for microclimate, heating, ventilation, light ing hospital premises. 	
<ol style="list-style-type: none"> 54. Hygienic requirements for the placement of hospitals in populated areas, to land and territory. 55. Requirements for architectural planning and structural solutions of buildings, structures and individual rooms of medical institutions. 56. Layout of the reception department and rooms for discharge of patients. 57. Hygienic requirements for the layout of the ward section. Features planning of surgical and obstetric departments. 58. Hygienic requirements for the layout of the children's infectious 	

diseases department. 59. Hygienic requirements for infectious diseases departments and polyclinics. 60. The program of sanitary examination of the hospital project	
Task for the evaluation indicator of the descriptor «Knows», «Possesses»	Task type
<p>1. Using the methodological recommendations from "Standards of physiological needs for energy and nutrition", analyze the results and develop recommendations for the nutrition correction in the dispensary.</p> <p>2. Using the methodological recommendations from "Hygienic requirements for learning conditions in educational institutions": Analyze the submitted materials. Assess the completeness of the study. Make a list of measures to improve the organization of physical education and the prevention of hypokinesia in schools. Determine the measures of administrative penalties and indicate the procedure for bringing the perpetrators to legal responsibility.</p> <p>3. Using the methodological recommendations from "MPC of harmful substances in the air of the working area"; "Noise at workplaces, in residential, public buildings and on the territory of residential development"; "Guidelines for the hygienic assessment of the factors of the working environment and the labor process. Criteria and classification of working conditions"; "Hygienic requirements for the microclimate of industrial premises"; "Hygienic requirements for hand tools and work organization": Give a hygienic assessment of the working conditions in this area. Draw up an order of an official authorized to carry out state sanitary and epidemiological supervision to eliminate the identified sanitary violations. Determine the measures of administrative penalties and indicate the procedure for bringing the perpetrators to legal responsibility.</p> <p>4. On the playground of the summer recreation camp for children and adolescents, located in the forest at a distance of 30 km from the city of B., a sanitary-chemical, helminthological and bacteriological study of the soil was carried out. Samples of 100 g were taken in different parts of the site from a depth of 10 cm and 2 cm (5 samples each). The total weight of the average sample is 1000g. Analysis results: total nitrogen content in 100 g of soil - 20 mg; the nitrogen content of humus - 18 mg; the total number of bacteria in 1 g of soil is 6800; coli bacillus titer - 7.6; titer of helminths – 500. Calculate the sanitary number. Give an opinion on the degree of soil pollution. Is this degree of pollution permissible on the territory of the pioneer camp?</p> <p>5. Machine-building plant, built in 1953. on the outskirts of S., is currently surrounded by residential buildings. Due to air pollution within a radius of 300-500m and complaints from residents of nearby houses about noise, it was decided to move the plant outside the city. On the former factory site, it was proposed to place one of the objects of social and domestic purposes,</p>	Practical
namely: a grocery store, a store of household goods or a kindergarten. In samples taken from the soil surface, the presence of MPC was found by 8-20 times. Which of the considered objects can be placed on such soil?	

The exam tasks contain 2 theoretical questions and a list of practical skills.

The task for the indicators of the evaluation of the descriptor «Knows»	Task type
<p><i>Formulate detailed answers to the following theoretical questions:</i></p> <ol style="list-style-type: none"> 1. The subject and objectives of hygiene. The connection of hygiene with other medical disciplines. The importance of hygiene in the activities of the attending physician. 2. The concept of primary and secondary disease prevention. Methods of hygienic research. 3. Hygiene of children and adolescents as a science. Goals, objectives, and research methods. 4. The history of the formation and development of hygiene in Russia. The founders of the national hygienic science. 5. Principles of hygienic rationing. Methodological concepts of hygienic rationing. Types of hygiene standards. 6. Urbanization, its social and hygienic significance. Principles of urban planning. City-forming factors, functional organization of the city territory. 7. The impact of environmental factors on humans. Hygienic rationing. Long-term effects of environmental factors. 8. Hygienic problems of the northern territories. 9. The importance of nutrition for the health and physical development of the population. The requirements for a rational human diet. Principles of nutrition rationing. 10. Methods for assessing the adequacy of nutrition of organized groups. Balanced diet. The power supply mode. 11. Alternative theories of nutrition (vegetarianism, raw food, starvation, separate meals), their hygienic assessment. 12. Proteins, their nutritional and biological value. Sources of high-grade proteins. Consumption standards. 13. Carbohydrates, their food sources and their importance in nutrition. The concept of protected carbohydrates, their importance in the prevention of diseases. Consumption standards. 14. Dietary fats of animal and vegetable origin, the biological value of various fats. Consumption standards. 15. Vitamins, their role in nutrition. Classification of vitamins. Characteristics of fat-soluble vitamins. 16. Characteristics of water-soluble vitamins. Fortification of food rations. 17. The main causes of the development of hypo- and vitamin deficiency. The danger of hypervitaminosis. 18. Minerals, their role in nutrition. The role of nutrition in providing the body with trace elements. Products are the main sources of minerals. 	theoretical
<ol style="list-style-type: none"> 19. Meat and meat products, their nutritional and biological value. Diseases related to meat consumption. 20. The importance of milk and dairy products in the nutrition of the population. The epidemiological role of milk. Methods of disinfection and preservation. Their hygienic characteristics. 21. The biological value of vegetable oils, the need for them. The nutritional value of margarine. Superheated fats. 22. Grain products, their importance in nutrition. 23. The importance of fruits and vegetables in the diet of the population. Preservation methods and their evaluation. 24. Canned food and concentrates, their nutritional value and importance in the nutrition of children. Food additives, their hygienic assessment. 25. Fish, nutritional and biological value. Diseases related to the 	

<p>consumption of fish.</p> <p>26. Prevention of diseases associated with poor nutrition. Alimentary dystrophy, insanity, take it easy.</p> <p>27. Overeating, its role in the formation of cardiovascular and other pathology.</p> <p>28. Nutritional characteristics of children, pregnant women and the elderly.</p> <p>29. Principles of hygienic assessment of food products. Classification of food products by origin, purpose and quality. Sanitary examination of food products.</p> <p>30. Food toxicoinfections, causes, clinical features, preventive measures.</p> <p>31. Bacterio- and mycotoxicoses. Causes of occurrence, features of the clinic, preventive measures.</p> <p>32. Food poisoning of non-microbial etiology (inedible mushrooms, poisonous and weedy plants, chemical impurities), preventive measures.</p> <p>33. Tactics of a medical doctor in the diagnosis and investigation of the causes of food poisoning. Documentation for the diagnosis of food poisoning.</p> <p>34. Catering in medical and preventive institutions. Hygienic requirements for nutrition as a therapeutic factor.</p> <p>35. Types of professional activity of a person. Physiological reactions to the work performed. The severity and intensity of work. Fatigue, its types and prevention.</p> <p>36. Factors of the production environment and their classification</p> <p>37. Industrial hazards, their classification. Comprehensive assessment of working conditions.</p> <p>38. Dust factor of the production environment, dust classification. Properties of dust that determine its pathogenicity. Occupational diseases of dust etiology.</p> <p>39. Noise and vibration as harmful factors of the production environment. The effect on the body. Occupational diseases. Preventive measures.</p> <p>40. Industrial microclimate. Acute and chronic consequences of working in a heating and cooling microclimate. Preventive measures.</p> <p>41. Industrial poisons. Classification, routes of entry, metabolic transformations in the body. The effect on the body.</p> <p>42. General characteristics of the action of industrial poisons. Prevention of acute and chronic intoxication in the workplace.</p> <p>43. The influence of low-intensity factors on the levels of general nonspecific morbidity of industrial workers</p>	
<p>44. Hygienic characteristics of the work of medical workers (surgical and therapeutic profile).</p> <p>45. Occupational hygiene in X-ray diagnostic rooms. Radiation load of the staff.</p> <p>46. Features of occupational hygiene in physiotherapy rooms and laser therapy departments.</p> <p>47. Methods of studying the morbidity of workers. General morbidity with temporary disability.</p> <p>48. Preventive medical examinations. The main content of the order 302 of the Ministry of Health of the Russian Federation. Occupational diseases, the procedure for investigating cases of acute and chronic occupational diseases.</p> <p>49. Occupational hygiene in oil and gas production. Features of the morbidity of workers.</p> <p>50. The main directions of health-improving activities in the workplace.</p> <p>51. Hygienic foundations of therapeutic and preventive nutrition and its importance in the prevention of occupational diseases.</p>	

52. Characteristics of the main types of ionizing radiation. Basic dosimetric concepts and units of measurement in radiation hygiene.
53. External irradiation, the main patterns of biological action. Principles of protection from external radiation.
54. Hygienic regulation of exposure to ionizing radiation.
55. Features of internal irradiation. The basics of hygienic rationing of internal radiation.
56. The main sources of public exposure. The dose loads of the population due to cosmic radiation, the radiation background of the earth, building materials, medical research.
57. Organization of water supply in settlements (sources of water supply, water consumption standards).
58. Morbidity of the population due to the consumption of low-quality water. Epidemiological significance of water.
59. The physiological and hygienic significance of water.
60. Hygienic requirements for drinking water. SanPiN Drinking water.
61. Hygienic requirements for the organization of decentralized water supply.
62. Methods for improving water quality. Methods of disinfection of drinking water.
63. Diseases of the population associated with the use of substandard water. Prevention of water epidemics. Rationing of the qualitative composition, as one of the means of prevention.
64. Prevention of endemic diseases associated with the peculiarities of the microelement and salt composition of water. Rationing of the qualitative composition of water, as one of the means of preventing diseases.
65. Modern problems of water supply in populated areas. Sanitary and hygienic requirements for the organization of centralized water supply.
66. Sanitary protection of reservoirs. Its importance in improving the human environment
67. The chemical composition of atmospheric air sources of its pollution. The main directions of sanitary protection of atmospheric air.
68. Physical properties of atmospheric air. Complex effect on the body. Normalization of the microclimate.

69. The impact of weather conditions on health. Prevention of meteorotropic diseases.
70. The use of natural climatic factors for health and therapeutic purposes.
71. Solar radiation. Spectral characteristics. Biological effect on the body.
72. Acclimatization to the conditions of the north, desert, highlands, high atmospheric pressure.
73. Specific sources of atmospheric air pollution, their impact on the general sanitary conditions of life and health of the population. The main directions of atmospheric air protection in cities
74. Hygienic value of the soil, composition and properties of the soil. The processes of self-purification of the soil.
75. Natural and man-made biogeochemical provinces. Endemic diseases and their prevention.
76. Characteristics and sources of anthropogenic soil pollution. The epidemiological significance of the soil.
77. Collection, disposal, neutralization and disposal of wastewater and solid household waste.
78. The main problems of hygiene of children and adolescents. Age-related morphofunctional features of the child's body.
79. The state of health of children and adolescents. Factors that shape

<p>health. Assessment criteria and health groups.</p> <p>80. Physical development of children as an indicator of health. Somatometric and somatoscopic parameters. Methods of assessing the physical development of children.</p> <p>81. The socio-hygienic significance of changes in the rate of age-related development. Acceleration.</p> <p>82. Hygienic basics of the daily routine, the main regime moments of children of pre-school, preschool and school age.</p> <p>83. Hygiene of educational activities at school. Factors contributing to the development of fatigue, its prevention. Hygienic requirements for the organization of the lesson of the school day and week.</p> <p>84. Hygiene of labor and industrial training. Professional orientation, medical and professional consultation, professional selection.</p> <p>85. Hygienic basics of physical education. Medical groups for physical education.</p> <p>86. Hygienic requirements for the placement, layout, and equipment of preschool institutions. Requirements for the air-thermal regime, insolation, natural and artificial lighting.</p> <p>87. Hygienic requirements for the placement, layout, and equipment of school institutions.</p> <p>88. Hygienic requirements for school furniture, textbooks and toys.</p> <p>89. Hygienic requirements for the planning and improvement of the hospital land plot, zoning of the hospital site</p> <p>90. Hygienic requirements for the placement of hospitals and the layout of the hospital site. Hospital building systems.</p> <p>91. Hygienic requirements for the admission department, the ward section as the functional main unit of the hospital.</p> <p>92. Hygienic requirements for the layout of the ward section. Types of boards.</p> <p>93. Features of the layout and mode of operation of therapeutic, obstetric and surgical departments. Measures to create a protective regime.</p>	
<p>94. Features of the layout and operating mode of the infectious diseases department of the hospital. Measures aimed at preventing nosocomial infections.</p> <p>95. Elements of sanitary improvement of hospitals: heating, ventilation, water supply, sewerage. Sanitary rules for wastewater discharge. Collection and disposal of hospital solid waste.</p> <p>96. Hygienic aspects of the prevention of nosocomial infections. Planning, sanitary and disinfection measures.</p> <p>97. Hygienic requirements for the placement, layout, equipment and organization of work of hospital catering units. Types of medical control. Medical documentation.</p> <p>98. Nutrition of patients as part of complex therapy and disease prevention. The basic principles of building a dietary diet.</p> <p>99. Personal hygiene tasks. Hygiene of the body and skin, the basic hygienic rules of oral care. Prevention of caries.</p> <p>100. Hardening of the body. The concept, meaning, basic principles (gradualness, systematicity, complexity)</p> <p>101. The socio-hygienic importance of preventing bad habits.</p> <p>102. Therapeutic and preventive nutrition of workers in contact with harmful factors of the production process.</p> <p>103. Structure, activities and tasks of the sanitary and epidemiological service</p> <p>104. Hygienic requirements for modern dwellings. Methods of investigation of the air-thermal regime of premises.</p>	

<p>105. Research methods and assessment of drinking water quality in the field during wartime.</p> <p>106. Features of the organization of water supply to troops in wartime.</p> <p>107. Protection of food and prepared food in conditions of the use of weapons of mass destruction.</p> <p>108. Duties of the medical service in the organization of field water supply for personnel in wartime.</p> <p>109. Organization of meals for troops in the field during wartime.</p> <p>110. Hygienic examination of food in the use of weapons of mass destruction.</p> <p>111. Hygienic characteristics of the conditions of stay of personnel in fortifications.</p> <p>112. Water supply and water collection points. Purpose, device, sanitary and hygienic characteristics of standard equipment for water extraction and treatment</p> <p>113. Methods of disinfection of individual water supplies, characteristics of standard equipment.</p> <p>114. Methods for improving the quality of drinking water in the field.</p> <p>115. Occupational hygiene in armored and motorized rifle troops.</p>	
<p>Task for the evaluation indicator of the descriptor «Knows», «Possesses»</p>	<p>Task type</p>
<p>1. Using the methodological recommendations from "Standards of physiological needs for energy and nutrition", analyze the results and develop recommendations for the nutrition correction in the dispensary.</p> <p>2. Using the methodological recommendations from "Hygienic requirements for learning conditions in educational institutions": Analyze the submitted materials. Assess the completeness of the study.</p>	<p>Practical</p>
<p>Make a list of measures to improve the organization of physical education and the prevention of hypokinesia in schools.</p> <p>Determine the measures of administrative penalties and indicate the procedure for bringing the perpetrators to legal responsibility.</p> <p>3. Using the methodological recommendations from "MPC of harmful substances in the air of the working area"; "Noise at workplaces, in residential, public buildings and on the territory of residential development"; "Guidelines for the hygienic assessment of the factors of the working environment and the labor process. Criteria and classification of working conditions "; "Hygienic requirements for the microclimate of industrial premises"; "Hygienic requirements for hand tools and work organization": Give a hygienic assessment of the working conditions in this area.</p> <p>Draw up an order of an official authorized to carry out state sanitary and epidemiological supervision to eliminate the identified sanitary violations. Determine the measures of administrative penalties and indicate the procedure for bringing the perpetrators to legal responsibility.</p> <p>4. On the playground of the summer recreation camp for children and adolescents, located in the forest at a distance of 30 km from the city of B., a sanitary-chemical, helminthological and bacteriological study of the soil was carried out. Samples of 100 g were taken in different parts of the site from a depth of 10 cm and 2 cm (5 samples each). The total weight of the average sample is 1000g.</p> <p>Analysis results: total nitrogen content in 100 g of soil - 20 mg; the nitrogen content of humus - 18 mg; the total number of bacteria in 1 g of soil is 6800; coli bacillus titer - 7.6; titer of helminths – 500. Calculate the sanitary number. Give an opinion on the degree of soil pollution. Is this degree of pollution permissible on the territory of the pioneer camp?</p>	

5. Machine-building plant, built in 1953. on the outskirts of S., is currently surrounded by residential buildings. Due to air pollution within a radius of 300-500m and complaints from residents of nearby houses about noise, it was decided to move the plant outside the city. On the former factory site, it was proposed to place one of the objects of social and domestic purposes, namely: a grocery store, a store of household goods or a kindergarten. In samples taken from the soil surface, the presence of MPC was found by 8-20 times. Which of the considered objects can be placed on such soil?