Examination station

of the Objective Structured Practical (Clinical) Examination (OSP(C)E)

"HYGIENE, ORGANIZATION OF HEALTH CARE"

ALGORITHM OF PERFORMANCE

Discipline "HYGIENE AND ECOLOGY"

ALGORITHM FOR PERFORMING ON THE SITUATIONAL TASK
«Toxicological evaluation and rating of xenobiotics»

№ of task	Elements of realization
1	Determine the class of toxicity of the substance.
2	Evaluate the degree of accumulation of matter.
3	Calculate of species sensitivity coefficient.
4	Interpret of species sensitivity coefficient.
5	Invert maximum non-effective dose in chronic experiment on maximum non-effective concentration.
6	Describe the organoleptic criterion of toxicity of the substance.
7	Describe the general sanitary criterion of toxicity of the substance.
8	Describe the toxicological criterion of toxicity of the substance.
9	Determinate the critical indicator of harm.
10	Determinate MAC of this substance.

ALGORITHM FOR PERFORMING ON THE SITUATIONAL TASK
«Toxicological assessment of the impact of pesticides on the human»

№ of task	Elements of realization
1	Calculate the actual phosphamide intake.
2	Compare the actual phosphamide intake with the allowable intake.
3	Determine the cause of phosphamide contamination of vegetables.
4	Give a hygienic assessment of the situation.
5	Define the concept of allowable daily dose and allowable daily intake.
6	Indicate which group of pesticides phosphamide belongs to.

7	Describe the mechanism of action of phosphamide on the organism.
8	Identify possible negative effects for health.
9	Justify the need for additional examinations to confirm the diagnosis.
10	Justify hygienic measures to reduce food contamination by phosphamide.

ALGORITHM FOR PERFORMING ON THE SITUATIONAL TASK
«Assessment of the atmospheric air state»

№ of task	Elements of realization
1	Specify the type of action of the chemicals which present in the atmosphere on the human health.
2	Evaluate the rate of atmospheric air pollution.
3	Determine the type of negative action of pollutants.
4	Calculate the effect of the combined action of pollutants.
5	Interpret the value of the effect of the combined action of pollutants.
6	Interpret the value of the effect of the combined action of pollutants.
7	Specify the size of the sanitary protection zone for this class of enterprise.
8	Specify the requirements for the location of industrial enterprises in settlements.
9	Make conclusion about the possibility of increasing of cases of respiratory diseases in children caused by the state of the environment.
10	Offer measures aimed at improving the airspace.

ALGORITHM FOR PERFORMING ON THE SITUATIONAL TASK
«Assessment of drinking water quality»

№ of task	Elements of realization
1	Name indicators of epidemic safety of water.
2	Name indicators of sanitary-chemical indicators of water.
3	Give the hygienic assessment of water quality.
4	Calculate the actual daily intake of nitrates at the water use of 1.5 l.
5	Compare the actual daily intake of nitrates with ADI.
6	Make a conclusion about the intake of nitrates in the child's body.
7	Indicate the possibility of using this water for drinking purposes.
8	Indicate which disease may occur in accordance to the results of the submitted studies.
9	Comment on the correctness of the organization of the sanitary protection zone around the mine well.
10	Indicate the multiplicity of control of water from the well for the content of nitrates.

ALGORITHM FOR PERFORMING ON THE SITUATIONAL TASK
«Assessment of the status nutritional of human»

№ of task	Elements of realization
1	Calculate body-mass index.
2	Estimate the body mass index.
3	Valuate of nutritional status according to the vitamin part.
4	Valuate of nutritional status according to the energy part.
5	Calculate contents of proteins, fats and carbohydrates (%) in food allowance.
6	Evaluate the content of food nutrients.
7	Estimate adequateness of nutrition.
8	Indicate risk factors.
9	Determine the possible negative effect for health.
10	Give the recommendations to regard of the nutritional status improving.

ALGORITHM FOR PERFORMING ON THE SITUATIONAL TASK
«Assessment of the nutritional adequacy»

№ of task	Elements of realization
1	Calculate of energy expenditure of man.
2	Calculate energetic capacity of the nutrition.
3	Calculate contents of proteins, fats and carbohydrates (%) in food allowance.
4	Evaluate the content of food nutrients.
5	Estimate adequateness of nutrition.
6	Evaluate the body's supply by vitamins.
7	Evaluate the body's supply by minerals.
8	Determine the group of physical activity of the man.
9	Evaluate the risk of alimentary diseases development.
10	Give the recommendations to regard of the nutrition improving.

ALGORITHM FOR PERFORMING ON THE SITUATIONAL TASK
«Evaluation of the working conditions on the industrial enterprises»

№ of task	Elements of realization
1	Calculate concentration of the dust in the air.
2	Compare the result with the MAC.

3	Make the hygienic evaluation of the of work conditions.
4	What research method was used?
5	Estimate risk factors.
6	Specify possible consequences for the health of workers.
7	What type of pneumoconiosis can develop in this case?
8	Give recommendations on optimizing working conditions of workers.
9	To indicate the terms of carrying out periodic medical examinations of workers.
10	Name the list of specialists and instrumental research, necessary for conducting these reviews in accordance with the current normative documents.

ALGORITHM FOR PERFORMING ON THE SITUATIONAL TASK
«The investigation of occupational poisoning»

№ of task	Elements of realization
1	Give an assessment of the worker's working conditions.
2	Establish a preliminary diagnosis.
3	Identify possible causes of these symptoms.
4	Determine the type and scope of medical care.
5	Determine the effect of the occupational factor that caused these symptoms.
6	Describe the features of medical examinations for workers in this category.
7	Specify contraindications for working with irritating substances.
8	Justify measures to optimize working conditions.
9	Make a scheme of investigation of occupational poisoning.
10	Make an emergency report of acute occupational poisoning.

ALGORITHM FOR PERFORMING ON THE SITUATIONAL TASK
«Evaluation of the work conditions of the medical staff in hospitals»

№ of task	Elements of realization
1	Evaluate the parameters of the microclimate in the operating room.
2	Evaluate the luminosity in the operating room.
3	Evaluate the air quality in the operating room for the content of anesthetics.
4	Calculate the effect of the combined action of chemicals in the operating room air.
5	Interpret the value of the effect of the combined action of anesthetics.
6	Assess the level of microbial contamination in the operating room.

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7	Identify risk factors for medical staff.
8	Evaluate the working conditions in the operating room.
9	Indicate possible adverse health effects for medical staff.
10	Suggest ways to improve working conditions in the operating room.

ALGORITHM FOR PERFORMING ON THE SITUATIONAL TASK
«Evaluation of the conditions of patient's stay in a hospital»

№ of task	Elements of realization
1	Give the hygienic evaluation of ward section planning.
2	Give the hygienic evaluation of capacity of wards in department.
3	Give the hygienic evaluation of area of wards in department.
4	Give a hygienic assessment of the microclimate parameter in wards.
5	Interpret of the state of thermoregulation of patients.
6	Estimate bacteriological parameters of the air environment in wards.
7	Indicate the negative consequences for the health of patients.
8	Substantiate measures of conditions optimization in therapeutic department.
9	Substantiate measures of planning of therapeutic department.
10	Justify the sanitary-epidemiological regime in the department for prevention in-hospital infections and SARS-CoV-2.

ALGORITHM FOR PERFORMING ON THE SITUATIONAL TASK
«Evaluation of the physical development of the child»

№ of task	Elements of realization
1	Indicate method of assessing the child's physical development which should be used.
2	Indicate method of study the child's physical development which should be used.
3	Calculate the regressive deviation according to the child weight.
4	Calculate the regression deviation according to the child chest circumference.
5	Valuate of child's physical development.
6	Determine the group of physical development for this child.
7	Calculate the degree of overweight.
8	Define the group of health of the child.
9	Indicate what pathology may occur at this case.
10	Offer the preventive measures.

ALGORITHM FOR PERFORMING ON THE SITUATIONAL TASK
«Risk assessment of environmental factors on public health»

№ of task	Elements of realization
1	Calculate the relation of chances of pathology occurrence depending from iodine content in the drinking water.
2	Estimate the received result.
3	Define the type of research conducted.
4	Justify the choice of experimental and control groups.
5	Specify the evidence of relationships between the endemic goiter and the iodine content of the water.
6	Specify the group of diseases to which the endemic goiter belongs.
7	Predict possible negative consequences for the population.
8	What statistical indicator of population health assessment is used in this case?
9	Which type of prophylaxis is used at this case?
10	Propose the preventive measures.