

**FEDERAL STATE BUDGET EDUCATIONAL
HIGHER EDUCATION INSTITUTION
"ROSTOV STATE MEDICAL UNIVERSITY"
MINISTRY OF HEALTH OF THE RUSSIAN FEDERATION**

FACULTY OF TREATMENT AND PREVENTION

Appraisal Fund
in the discipline "Emergency conditions in the practice of a therapist"

Specialty 05/31/01 General Medicine

1. List of competencies to be developed

professional (PC)

Code and name of professional competencies	Indicator(s) of professional achievement competencies
<p>PC 11.Willingness to participate in providing emergency medical care for conditions requiring urgent medical interventions</p>	<p>ID PC 11 Labor actions</p> <p>ID 1 Assessment of the patient's condition requiring urgent or emergency medical care. Recognition of conditions arising from sudden acute diseases, exacerbation chronic diseases without obvious signs of a threat to the patient's life and requiring emergency medical care</p> <p>ID 2 Providing emergency medical care to patients with sudden acute diseases, conditions, exacerbation of chronic diseases without obvious signs of a threat to the patient's life. Recognition of conditions that pose a threat to the patient's life, including states of clinical death (cessation of vital functions of the human body (blood circulation and/or breathing), requiring emergency medical care</p> <p>ID 3 Providing emergency medical care to patients in conditions that pose a threat to the patient's life, including clinical death (stopping the vital functions of the human body (blood circulation and/or breathing)</p> <p>ID 4 Use of medicines and medical devices in the provision of emergency or emergency medical care</p> <p>Required skills</p> <p>ID 5 Identify clinical signs of conditions requiring emergency medical care. Carry out emergency medical care measures</p>

	<p>ID 6 Identify conditions requiring emergency medical care, including clinical signs of sudden cessation of blood circulation and breathing. Perform basic cardiopulmonary resuscitation in combination with electropulse therapy (defibrillation).</p> <p>Required knowledge</p> <p>ID 7 List of laboratory and instrumental research methods for assessing the patient's condition, basic medical indications for conducting research and interpreting the results.</p> <p>ID 8 Etiology, pathogenesis And pathomorphology, clinical painting, differential diagnosis, clinical features, complications and outcomes of diseases of internal organs. Methodology for collecting complaints and medical history from patients (their legal representatives). Methods of physical examination of patients (examination, palpation, percussion, auscultation). Clinical signs sudden termination blood circulation and/or respiration.</p> <p>ID 9 Rules for basic cardiopulmonary resuscitation. Principles of operation of devices for external electropulse therapy (defibrillation). Rules execution external electric pulse therapy (defibrillation) for sudden cessation of blood circulation and/or breathing</p>
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2. Types of assessment materials in accordance with the competencies being developed

Name competencies	Types of assessment materials	number of tasks for 1 competency
PC-11	Closed tasks	20 with sample answers
	Tasks open type: Interview questions Situational tasks	25 with sample answers

PC-11:

Closed type tasks:

Task 1. Instructions: Choose one correct answer

The main symptoms of acute cerebrovascular accident:

1. disturbance of speech, sensitivity, movements
2. chest pain, shortness of breath, tachycardia
3. dizziness, nausea, vomiting
4. dizziness, flashing "spots" before the eyes

Correct answer: 1

Task 2. Instructions: Choose one correct answer

The cause of hypoglycemic coma is:

1. self-cancellation of glucose-lowering drugs
2. insulin overdose
3. insufficient dose of insulin
4. non-compliance with doctor's instructions

Correct answer: 2

Task 3. Instructions: Choose one correct answer

Acute left ventricular heart failure includes:

1. status asthmaticus
2. pulmonary embolism
3. pulmonary edema
4. myocardial infarction

Correct answer: 3

Task 4. Instructions: Choose one correct answer

Relief of shortness of breath due to pulmonary edema is carried out:

1. aminophylline
2. analgin
3. morphine
4. baralgin

Correct answer: 3

Task 5. Instructions: Choose one correct answer

Patient position for cardiogenic shock:

1. sitting position with legs down
2. lying on your back with the leg end raised
3. lying on your back without a pillow

4. lying on your back with your head raised

Correct answer: 2

Task 6. Instructions: Choose one correct answer

When treating high-grade ventricular extrasystole in a patient suffering from coronary heart disease, preference is given to:

1. disopyramide
2. flecainide
3. amiodarone
4. propafenone

Correct answer: 3

Task 7. Instructions: Choose one correct answer

When providing first aid to a victim who suddenly lost consciousness, but whose breathing was preserved, it is necessary:

1. lay him on his stomach
2. place it in a stable side position
3. to quickly restore consciousness, give ammonia a sniff
4. turn his head to the side

Correct answer: 2

Task 8. Instructions: Choose one correct answer

Before administering the first electrical defibrillation shock, you must:

1. introduce sodium bicarbonate
2. administer lidocaine
3. identify the picture of large-wave ventricular fibrillation on the monitor of an electric defibrillator
4. perform indirect cardiac massage for 7 minutes

Correct answer: 3

Task 9. Instructions: Choose one correct answer

Stopping nosebleeds involves the following procedures:

1. sit the patient down, tilt his head forward, cold on the bridge of the nose
2. sit the patient down, tilt his head back, press the wings of the nose to the bridge of the nose
3. sit the patient down, tilt his head back, cold on the bridge of the nose
4. Place the patient on a high pillow, press the wings of the nose to the bridge of the nose

Correct answer: 1

Task 10. Instructions: Choose one correct answer

The decrease in cardiac output in true cardiogenic shock is due to

1. generalized vasodilation
2. decreased myocardial contractility
3. decreased venous blood flow to the heart
4. obstruction to blood flow in the pulmonary circulation

Correct answer: 2

Task 11. Instructions: Choose one correct answer

Cardiopulmonary resuscitation in adults begins with:

1. artificial ventilation
2. indirect cardiac massage
3. administration of medications
4. ensuring airway patency

Correct answer: 2

Task 12. Instructions: Choose one correct answer

Patient position for pulmonary hemorrhage: 1)

semi-sitting

2) lying on your side

3) Trendelenburg

4) lying on your stomach

Correct answer: 1

Task 13. Instructions: Choose one correct answer

For right ventricular myocardial infarction, the characteristic symptoms are

1. decreased blood pressure, swelling of the neck veins, shortness of breath
2. increased blood pressure, moist rales in the lungs, tachycardia
3. increased diastolic pressure, enlarged liver
4. decrease in systolic pressure, strengthening of the venous pattern of the body

Correct answer: 1

Task 14. Instructions: Choose one correct answer

In case of pulmonary edema, diagnostic procedures must be performed:

1. multislice computed tomography of the lungs
2. fiberoptic bronchoscopy
3. spirometry
4. electrocardiography

Correct answer: 4

Task 15. Instructions: Choose one correct answer

Moderate brain contusion is characterized by:

1. loss of consciousness for up to 10-15 minutes
2. loss of consciousness up to two hours
3. preserved consciousness
4. prolonged (hours, days) loss of consciousness

Correct answer: 2

Task 16. Instructions: Choose one correct answer

The first-priority treatment measures for anaphylactic shock include

1. prescribing antihistamines
2. prescription of hormonal drugs
3. subcutaneous injection of adrenaline at the injection site
4. IV administration of adrenaline and oxygen therapy

Correct answer: 4

Task 17. Instructions: Choose one correct answer

A characteristic symptom of Prinzmetal's angina is

1. pointed tall P wave
2. nocturnal nature of pain not associated with physical activity
3. intractable pain syndrome
4. shift of the ST segment above the isoline

Correct answer: 2

Task 18. Instructions: Choose one correct answer

The complex of symptoms characteristic of diabetic (ketoacidotic) coma includes

1. sweating, Grokk's breath, smell of alcohol in exhaled air
2. dry skin, Cheyne-Stokes breathing, smell of ammonia in exhaled air
3. dry skin, Kussmaul breath, smell of acetone in exhaled air
4. sweating, Biota breathing, stiff neck

Correct answer: 3

Task 19. Instructions: Choose several correct answers

Diagnostic criteria for the risk factor – hyperglycemia include: 1. Fasting glucose level in capillary whole blood 5.5 or more

mmol/l

2. Fasting glucose level in capillary whole blood 5.6 or more

mmol/l

3. Fasting glucose level in venous blood 6.1 or more mmol/l
4. presence of diabetes mellitus
5. presence of diabetes mellitus, including if as a result

effective therapy, normoglycemia has been achieved

6. Fasting glucose level in venous blood is 6.0 or more mmol/l

Correct answer: 2,3,4,5

Task 20. Instructions: Choose one correct answer

Symptoms of food poisoning are:

1. pain 1.5-2 hours after eating, heartburn, vomiting, which brings relief
2. bloating, single vomiting, non-passage of gases
3. pain without clear localization, repeated vomiting, frequent loose stools
4. pain in the right iliac region, reflex vomiting, single stool

Correct answer: 3

Open type tasks:

Exercise 1.

Doctor's tactics for suspected myocardial infarction at an outpatient appointment_____

Correct answer: take an ECG on the spot, provide emergency assistance, call a cardiology ambulance team

Task 2.

The critical value for reducing arterial blood saturation is SaO₂ below _____%

Correct answer: 50%

Task 3.

Most characteristic ECG sign vasospastic angina pectoris_____

Correct answer: ST interval elevation

Task 4.

The most reliable indicator indicating the presence of bronchial obstruction is_____

Correct answer: FEV1 Task 5.

The main signs of venous bleeding are: blood _____ color

Correct answer: dark cherry, flows out slowly

Task 6.

The optimal treatment for hypoglycemic coma is the administration of

Correct answer: 40% glucose solution (dextrose) Task

7.

Infusion of 1 liter of saline sodium chloride solution increases the volume of circulating blood _____ ml

Correct answer: less than 250 ml Task 8.

The sudden appearance of headache, a sharp increase in blood pressure, tachycardia, pallor of the skin, and after an attack - polyuria, is typical for

Correct answer: Pheochromocytomas

Task 9. Interview question.

How does the level of systolic blood pressure change with an adequately selected rate of Nitroglycerin administration?

Correct answer: Blood pressure will decrease by 10-15% in normotensive people and decrease by 25-30% in people with arterial hypertension.

Task 10. Interview question.

In what cases can the use of nitrates be avoided in patients with acute ST-segment elevation myocardial infarction?

The correct answer is: if hypotension prevents the use of appropriate doses of beta-blockers or ACE inhibitors

Task 11.

The loading dose of Clopidogrel for planned primary PCI in patients with acute ST-segment elevation myocardial infarction should be _____mg?

Correct answer: 600 mg Task

12. Interview question.

What will determine the dose of Morphine required for adequate pain relief in acute myocardial infarction?

Correct answer: The dose of morphine will depend on the patient's weight, age and individual sensitivity.

Task 13. Interview question.

Name the cause of melena in the presence of hepatomegaly (topical diagnosis) **Correct answer: Bleeding from dilated veins of the esophagus**

Task 14. Interview question.

Under what conditions is electrical cardioversion/defibrillation recommended for patients with acute myocardial infarction?

Correct answer: with sustained ventricular tachycardia, or with sustained ventricular fibrillation.

Task 15. Interview question.

What is primary percutaneous coronary intervention? **Correct answer: PCI (percutaneous coronary intervention) is a method of reperfusion treatment of acute coronary syndrome with persistent ST segment elevations on the ECG, when the first measure is to restore the patency of the coronary artery.**

Task 16. Interview question.

What is thrombolytic therapy?

Correct answer: a method of reperfusion treatment of acute coronary syndrome with persistent ST segment elevations on the ECG, when medicinal restoration of occluded coronary patency is carried out using parenteral administration of a fibrinolytic drug, usually in combination with antiplatelet agents and an anticoagulant.

Task 17. Situational task.

The doctor on duty was invited to the patient's apartment. The woman complains of pain in the right iliac region, there was no vomiting, but she is bothered by a feeling of nausea. The pain is constant, without irradiation, body temperature is 37.50C. The patient considers himself sick for several hours. On examination: the tongue is slightly coated, dry, the abdomen in the right iliac region is painful, there is tension in the abdominal wall muscles in this area. Positive symptoms: Shchetkin-Blumberg, Sitkovsky and Obrastsov.

Tasks: Formulate and justify a preliminary diagnosis. Additional research methods.

Emergency care algorithm.

Correct answer: Acute appendicitis. This assumption is based on objective research data: soreness, muscle tension, and symptoms of peritoneal irritation are determined in the right iliac region. The pain on the right increases when lying on the left side (Sitkovsky's symptom). On palpation of the right iliac region, the pain intensifies when the patient holds

an outstretched right arm in an elevated position, that is, when the lumboiliac muscle is tense and the inflamed process is pressed with the hand against the tense muscle (Obraztsov's symptom). Additional research methods. In doubtful cases, check the presence or absence of other symptoms - Voskresensky, Rovzing, Razdolsky, Bartomier-Mikhelson. Voskresensky's symptom (shirt symptom) - determine the presence of an area of pain when passing the hand from top to bottom along the abdominal wall on the right through the shirt. Rovsing's symptom - the sigmoid is compressed and a slight push is made in the direction of the splenic angle - the pain on the right increases. Bartomier-Michelson's symptom - when palpating the right iliac region with the patient positioned on the left side, the pain intensifies. Razdolsky's symptom is pain on percussion over the site of inflammation. Algorithm for providing emergency care: The patient is subject to emergency hospitalization in the surgical department by ambulance, as a serious complication is possible - peritonitis. Painkillers should not be administered so as not to obscure the clinical picture. Cold can be applied locally, which will somewhat delay the progression of inflammation.

Task 18. Situational task.

Patient N., 20 years old, student, during a regular session noted the appearance of abdominal pain, localized mainly around the navel, of varying intensity, disappearing after defecation. Stool 4-5 times a day, feces mixed with mucus. Objectively: the condition is satisfactory, the skin is clean, physiological in color. There is vesicular breathing over the lungs, no wheezing. Heart sounds are rhythmic and sonorous. Blood pressure 115/70 mm Hg. Art. Pulse 78 per minute, satisfactory properties. The abdomen is soft, and upon palpation there is diffuse pain along the intestine. All clinical and laboratory parameters of blood and urine are without pathology. What disease can you think about? Examination and treatment plan?

Correct answer: Preliminary diagnosis: irritable bowel syndrome.

Examination plan: KBC, OAM, coprogram, biochemical blood test: ALT, AST, alkaline phosphatase, amylase, blood for occult blood. Instrumental diagnostics: FGDS, colonoscopy. Treatment: antispasmodics (no-spa, duspatalin), smecta 1 packet 3 times a day, consultation with a psychiatrist.

Task 19.

The patient has been suffering from gastric ulcer for many years, is periodically treated, the treatment gives an effect for several months. Currently in a period of exacerbation, I had to go to the clinic in a few days. Getting ready for work, I noted the feeling

weakness, dizziness, tinnitus, nausea and stools black as tar - such a condition had never happened before. The patient was always tormented by pain, but this time they stopped bothering him. On examination: some pallor of the skin, pulse 96 beats/min, decreased filling. Blood pressure 100/60 mm Hg. (usually the patient's pressure is 140/80 mm Hg), respiratory rate is 26 per minute. The tongue is dry, covered with a white coating, the abdomen is not swollen, soft, slightly painful on palpation in the epigastrium, the Shchetkin-Blumberg symptom is negative.

Tasks: Formulate and justify a preliminary diagnosis. What additional research should be done. Algorithm for providing emergency care at the prehospital stage

Correct answer: Gastric bleeding, hemorrhagic shock, stage I. The diagnosis was made on the basis of anamnesis: the patient suffered from a stomach ulcer, for no particular reason he felt weak, dizzy, began to feel nauseous, the pain in the stomach area almost disappeared, and he had black tarry stools. Examination data: the patient is pale, pulse is 96 beats/min, blood pressure is reduced to 100/60 mm Hg. whereas usually the patient's blood pressure is 140/80 mmHg. The abdomen is soft and slightly painful in the epigastrium. The patient should undergo a digital examination of the rectum. Detection of tarry stool on the finger - melena (characteristic of gastric bleeding). Emergency care algorithm: - strict bed rest, start injecting plasma, polyglucin, rheopolyglucin and other blood substitutes into a vein. Administration of epsilonaminocaproic acid, dicinone solution, calcium chloride, fibrinogen. Cold is periodically applied to the stomach area. They don't give anything by mouth. Transport in a lying position on a stretcher to the emergency surgery department by ambulance.

Task 20.

Patient A., 38 years old, complains of a throbbing headache, accompanied by a feeling of compression of the head, palpitations, sweating, and chills. Over the past 6 months, he has lost 4 kg of weight. I measured my blood pressure irregularly. Over the past 8 months, the patient has a history of frequent hypertensive crises, which were treated by emergency doctors (he does not remember the medications). She did not take antihypertensive therapy on a regular basis, but when her blood pressure increased above 170/100 mm Hg. Art. took Captopril 25 mg orally without significant effect. On examination: blood pressure – 220/130 mm Hg. Art., heart rate – 180 beats per minute. Body temperature - 37.8°C, pale skin, tremor, cold hands, photophobia. A brief syncope was noted. Therapy carried out

intravenous slow administration of the drug Urapidil with a decrease in blood pressure within an hour to 160/90 mm Hg. Art.

Establish a preliminary diagnosis. Outline a plan for examining the patient at the first stage. Determine the range of differential diagnosis. Determine treatment tactics.

Correct answer: Pheochromocytoma. Crisis form. Hypertensive crisis. The patient was recommended: CBC, fasting blood sugar, ECG, ultrasound of the adrenal glands, kidneys, thoracic and abdominal aorta, MSCT of the kidneys and adrenal glands, urine testing for the quantitative content of norepinephrine, adrenaline, vanillylmandelic acid, tropafen test.

Differential diagnosis with hypertensive symptomatic arterial crisis, hypertension.

Treatment tactics: Alpha-blockers, if necessary, combination with beta-blockers, calcium channel antagonists, ACE inhibitors. Surgical treatment (adrenalectomy) is planned.

Task 21. Situational task

Complaints of sudden shortness of breath, pain behind the sternum, aggravated by coughing. History of coronary artery disease, atrial fibrillation. The condition is of moderate severity, consciousness is clear, the position is lying down, the skin is cyanotic, the neck veins are swollen and pulsating. In the lungs, breathing is weakened, respiratory rate - 36. Heart sounds are muffled, accent and bifurcation of the second tone on the pulmonary artery, blood pressure 100/60, FS - 96, arrhythmic. The liver protrudes from under the costal margin by 1.5 - 2.0 cm. Preliminary diagnosis, your actions.

Correct answer: TELA. A combination of an anti-shock position with an elevated position of the upper half of the body; Ensure airway patency; Inhalation administration of 100% O₂ on a constant flow through nasal catheters (mask) or IVL mask with an "Ambu" bag with oxygenation of 100% O₂ on a constant flow; Sodium chloride 0.9% - IV, drip, at a rate of 10 ml/kg/hour, under auscultatory control of the lungs In the presence of pain and SBP > 90 mm Hg: Morphine - IV slowly in 2-fractions 3 mg after 2-3 minutes until effect is obtained or a total dose of 20 mg; Heparin - from 60 IU/kg IV bolus slowly;

Task 22. Situational task

An 18-year-old patient complains of shortness of breath, palpitations, heaviness in the head, "tension in the body," a feeling of stretching of the skin, severe weakness, and drowsiness. From the anamnesis it was found out that he was suffering from acute respiratory infections. After taking paracetamol, a skin rash and an increase in t were noted. Objectively, the face is puffy, swelling of the subcutaneous tissue, respiratory rate up to 28 minutes, blood pressure 120/80 mm Hg, heart rate 60 minutes, the rhythm is correct. Your tactics.

Correct answer: Edema Quincke. Tactics help: staging peripheral catheter, NaCl solution 0.9%, Adrenaline 0.5 ml, Oxygen therapy, Prednisolone 30-60 mg

Task 23. Situational task

In the clinic, in the corridor, according to those around her, the woman suddenly lost consciousness. The condition is moderate, he appears to be 60 years old. The skin is pale and moist. Blood pressure 110\70. PS-96, satisfactory filling and voltage. There are traces of injections on the skin of the abdomen and shoulders. Preliminary diagnosis, tactics.

Correct answer: Hypoglycemia. Ensure airway patency; Reduce pressure on the abdominal cavity (unfasten clothes, trouser belt); Horizontal position with an elevated position of the upper half of the body; In case of disturbances in the function of external respiration: inhalation administration of 100% O2 on a constant flow through nasal catheters (mask) or IVL with an "Ambu" bag with oxygenation of 100% O2 on a constant flow; For hypoglycemia due to alcohol consumption or malnutrition:

Thiamine - 100-200 mg IV bolus (IM);

Glucose 40% - IV in fractional 20 ml bolus doses (no more than 100 ml); Task 24. Situational task

A 38-year-old patient turned to her local physician with complaints of a sharp headache in the temporal regions, nausea, a feeling of trembling in the body, chills, palpitations, and a feeling of fear. The patient considers himself within 5 years, when in the first half of pregnancy an increase in blood pressure to 180/100 mm Hg was noted. Subsequently, she periodically felt headaches and increased excitability, but did not consult a doctor. In the last 2 years, attacks with the above-described complaints have appeared. The attacks were triggered by nervous tension and weather changes. Objectively. The patient is excited, the skin is pale and moist. Pulse 122 per minute, blood pressure 200/115 mm Hg, the borders of the heart are expanded to the left by 1 cm, the rhythm is correct, the tones are clear, pure, accent of 2 tones over the aorta.

Formulate a preliminary diagnosis. Emergency treatment. **Correct answer:**

Hypertension stage 2, degree 3, risk 4, hypertensive crisis. Captopril 25 mg PO, diazepam (Seduxen, Relanium) 2 ml 0.5% solution IV or IM. If there is no effect, sodium enalaprilate 1.25 mg every 6 hours intravenously in a slow stream (over 5 minutes) or drip

Task 25. Situational task

Patient V., 43 years old, turned to her local physician with complaints of daily attacks of suffocation, exhalation was especially difficult, general weakness, and malaise. After an attack, a small amount of viscous, glassy sputum is discharged. She has been ill for 3 years, these complaints occur annually in June, in July all symptoms disappear. He associates his illness with the loss of a loved one. There are two children, 7 and 13 years old, who also have asthma attacks. The mother and grandmother also experienced asthma attacks. The patient is allergic to strawberries and penicillin. Objectively: the condition is of moderate severity. The patient sits, leaning her hands on the edge of the chair. The skin is clear, with a cyanotic tint. The chest is barrel-shaped, the supra- and subclavian areas are smoothed, the intercostal spaces are widened, there is swelling of the jugular veins, the participation of auxiliary muscles, and retraction of the intercostal spaces. Breathing is loud, with whistling and noise, 26 times per minute. Upon percussion, a box sound is noted, the lower border of the lungs along the mid-axillary line is determined at the level of the 9th rib, the excursion of the lungs along this line is 2 cm. Against the background of weakened vesicular breathing with prolonged exhalation, dry wheezing rales are heard. NPV - 26 per minute. Heart sounds are rhythmic, clear, 92 per minute, blood pressure 110/70 mm Hg. No abdominal pathology was detected. Peak expiratory flow during peak flowmetry is 70% of predicted.

Formulate a presumptive diagnosis. Name the necessary additional research. List the complications of this disease. Determine your tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease

Correct answer: Atopic bronchial asthma, moderate severity. Emphysema.

Complications - Status asthmaticus. Respiratory failure. Examination - general blood test, biochemical analysis, microscopic examination of blood, sputum). Study of external respiration function - spirometry. X-ray of the chest organs.

Principles of treatment: Inhaled glucocorticosteroids: beclomethasone, budesonide. Long-acting sympathomimetics: salmeterol. The prognosis for life is favorable in case of anti-relapse treatment. Prevention of exacerbations: eliminate the effect of allergens (if possible). Conduct peak flowmetry to monitor bronchial patency; clinical observation, patient education in asthma schools; carrying out specific hyposensitization

CRITERIA for assessing competencies and rating scales

Grade "unsatisfactory" (not accepted) or absence formation competencies	Grade "satisfactorily" (passed) or satisfactory (threshold) level of development competencies	Rated "good" (passed) or sufficient level development competencies	Excellent rating (passed) or high level development competencies
failure to student on one's own demonstrate knowledge when solving assignments, lack independence in application of skills. Absence availability confirmation formation competencies indicates negative development results academic discipline	student demonstrates independence in application of knowledge skills and abilities to solve educational tasks in full According to sample given teacher, by tasks, solution of which there were shown teacher, it should be considered that competence formed on satisfactory level.	student demonstrates independent application of knowledge, skills and abilities when deciding assignments, tasks similar samples that confirms Availability formed competencies for higher level. Availability such competence on sufficient level indicates sustainable fixed practical skill	student demonstrates ability to full independence in choosing a method solutions non-standard assignments within disciplines with using knowledge, skills and skills, received as in development progress of this discipline, and adjacent disciplines should count competence formed on high level.

Criteria for assessing test control:

percentage of correct answers	Marks
91-100	Great
81-90	Fine
70-80	satisfactorily
Less than 70	unsatisfactory

When grading tasks with multiple correct answers, one error is allowed.

Interview assessment criteria:

Mark	Descriptors		
	strength of knowledge	ability to explain (introduce) the essence of phenomena, processes, do conclusions	logic and subsequence answer

Great	strength of knowledge, knowledge of basic processes subject matter being studied areas, the answer differs in depth and completeness disclosure of the topic; possession terminological apparatus; logic and consistency answer	high skill explain the essence phenomena, processes, events, draw conclusions and generalizations, give reasoned answers, give examples	high logic and subsequence answer
Fine	solid knowledge of the basic processes of the studied subject area, differs in depth and completeness of the topic; possession terminological apparatus; free mastery of monologue speech, but one or two inaccuracies in the answer are allowed	ability to explain essence, phenomena, processes, events, draw conclusions and generalizations, give reasoned answers, give examples; however one or two inaccuracies in the answer are allowed	logic and subsequence answer
satisfactory really	satisfactory process knowledge subject matter being studied areas, answer, different insufficient depth and completeness of the topic; knowledge of basic theoretical issues. Several are allowed errors in content answer	satisfactory ability to give reasoned answers and provide examples; satisfactorily formed analysis skills phenomena, processes. Several are allowed errors in content answer	satisfactory logic and subsequence answer
will not satisfy really	poor knowledge of the subject area being studied, shallow opening Topics; poor knowledge basic theoretical issues, poor analysis skills phenomena, processes. Serious errors in content answer	inability to give reasoned answers	absence logic and sequences answer

Criteria for assessing situational tasks:

Mark	Descriptors			
	understanding Problems	analysis situations	skills solutions situations	professional thinking
Great	complete implication problems. All	high benefit analyze	high benefit select method	high level professional thoughts

	requirements, submitted to adania, completed	situation, draw conclusions	solutions problems, faithful solution skills situations	
Fine	complete implication problems. All requirements, submitted to adania, completed	benefit analyze situation, draw conclusions	benefit select method solutions problems faithful solution skills situations	residual level professional thoughts. drops one or two precision in the answer
satisfactory really	astastic implication problems. majority requirements declared to adania, completed	satisfactory 1st ability analyze situation, draw conclusions	satisfactory e skills solutions situations, falsity with choosing a method solutions to the problem	residual level professional thoughts. falls more a bunch of inaccuracies in answer or there is an error in the sequence solutions
will not satisfy really	misunderstanding problems. legs requirements, submitted to I hope not completed. No Tveta. Did not have experiments to solve hello	izkaya benefit analyze situation	insufficient solution skills situations	missing