«Оңтүстік Қазақстан медицина академиясы» АҚ О«Южно-Казахстанская медицинская академия»

Department of "Propaedeutics of Internal Diseases", "Department of Pathology and Forensic Medicine", "Department of Pharmacology, Pharmacotherapy and Clinical Pharmacology"

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Control and measuring equipment for the discipline "Digestive and endocrine system in pathology"

### CONTROL AND MEASURING INSTRUMENTS

# Questions of the program for the midterm control

Course code: DESP 3221

Title ddisciplines: "Digestive and endocrine system in pathology"

Name and code of the OP: 6B10115 "Medicine" Amount of study hours/credits: 60 hrs. (2 credits) Course and semester of study: 3rd year, 5th semester ОЙТÚSTIK QAZAQSTAN MEDISINA AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ

SKMA -1979-

SOUTH KAZAKHSTAN MEDICAL ACADEMY

АО «Южно-Казахстанская медицинская академия»

Department of "Propaedeutics of Internal Diseases", "Department of Pathology and Forensic Medicine", "Department of Pharmacology, Pharmacotherapy and Clinical Pharmacology"

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Control and measuring equipment for the discipline "Digestive and endocrine system in pathology"

The control and measuring tools were developed in accordance with the working curriculum of the discipline (sillabus) and discussed at a department meeting.

Protocol: No 11 a 26 m 06 2025y

Head of department, d.m.s., professor Bekmurzaeva E.K. Bene, -

Department of "Propaedeutics of Internal Diseases", "Department of Pathology and Forensic Medicine", "Department of Pharmacology, Pharmacotherapy and Clinical Pharmacology"

Control and measuring equipment for the discipline "Digestive and endocrine system in pathology"

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### Department of "Propaedeutics of Internal Diseases"

#### **Border control №1:**

- 1. An assignment to demonstrate practical skills.
- 2. Questioning patients with diseases of the gastrointestinal system.
- 3. General examination of patients with diseases of the gastrointestinal system.
- 4. Methodology and technique for superficial palpation of the abdomen.
- 5. Methodology and technique for performing deep palpation of the abdomen.
- 6. Method and technique for determining the lower border of the stomach.
- 7. Methodology and technique of abdominal percussion.
- 8. Method and technique of liver percussion according to Kurlov.
- 9. Methods and techniques of liver palpation.
- 10. Questioning and general examination of patients with dyspeptic syndrome.
- 11. Questioning and general examination of patients with pseudo-abdominal syndrome.
- 12. Interviewing and general examination of patients with malabsorption and maldigestion syndromes.
- 13. Features of palpation in the main syndromes of gastrointestinal diseases. Diagnostic value.
- 14. Features of percussion in the main syndromes of gastrointestinal diseases. Diagnostic value.
- 15. Features of interpretation of results of laboratory and instrumental research methods for leading syndromes of gastrointestinal pathology.
- 16. Laboratory research methods for pathologies of the gastrointestinal system.
- 17. Instrumental research methods for pathologies of the gastrointestinal system.
- 18. Laboratory research methods for pathologies of the hepatobiliary system.
- 19. Instrumental research methods for pathologies of the hepatobiliary system.

### **Option 1**

- 1. Name the taste disorder:
  - a) ageusia
  - b) aphasia
  - c) amnesia
  - d) anosmia
  - e) hypocusia
- 2. A 47-year-old female patient, a seamstress, complains in hospital of yellowing of the skin, darkening of the urine, paroxysmal pain in the right hypochondrium on the 2nd day, vomiting after eating fatty foods and lifting heavy objects. Previously, there was dull pain on the right side, radiating to the right shoulder blade, shoulder, bitterness in the mouth, increased body weight, BMI 38 kg / m2, green-yellow skin, xanthelasma of the eyelids, painful abdomen in the right hypochondrium, liver 8-7-6 cm. In blood tests: bilirubin 154  $\mu$ mol / l, (direct 112, indirect 42), ALT 36 IU / l, AST 25 IU / l, cholesterol 8.1 mmol / l; alkaline phosphatase 196 IU / l. Which of the following syndromes is likely in this patient:
  - a) cholestasis
  - b) protein-synthetic deficiency
  - c) mesenchymal inflammation
  - d) hyperazotemia
  - e) cytolysis

- 3. A 63-year-old patient complains of general weakness, memory loss, sleep disorders, vomiting, and hiccups. History: has had liver cirrhosis for over 18 years, has been getting worse for about a week: depression and apathy are replaced by euphoria or aggression. On examination: slowness of movement and speech, liver odor, weight loss, shoulder girdle muscle atrophy, flapping tremor, jaundice, skin hemorrhages, gynecomastia, palmar erythema, enlarged abdomen ascites. Liver size according to Kurlov is 7-6-5 cm, spleen is 14x8 cm. Which of the following syndromes is likely with the progression of liver cirrhosis:
  - a) liver failure
  - b) hepatic coma
  - c) hepatosplenic
  - d) edematous-ascitic
  - e) hepatic encephalopathy
- 4. A 63-year-old patient complains in hospital of general weakness, memory loss, sleep disorders, vomiting, and hiccups. History: 10 years of liver cirrhosis, worsening condition over the course of a week, depression and apathy are replaced by euphoria or aggression. On examination: slowness of movement and speech, liver odor, weight loss, atrophy of the shoulder girdle muscles, flapping tremor, jaundice, skin hemorrhages, gynecomastia, palmar erythema, the abdomen is enlarged due to ascites. Liver size according to Kurlov is 7-6-5 cm, spleen 15x9 cm. Which of the following blood serum parameters is likely to increase in this patient:
  - a) ammonia
  - b) albumin
  - c) cholesterol
  - d) prothrombin
  - e) total protein
- 5. A 33-year-old female patient, a cook, complains of yellowing of the skin, darkening of the urine, on the 2nd day she has been bothered by paroxysmal pain in the right hypochondrium, vomiting after eating fatty foods and lifting heavy objects. From the anamnesis: previously there was dull pain on the right, radiating to the right shoulder blade, shoulder, bitterness in the mouth. On examination: overnutrition, BMI 37 kg / m2, green-yellow skin and mucous membranes, xanthelasma of the eyelids. On palpation pain in the abdomen in the right hypochondrium. Liver size is 8-7-6 cm. In the tests: bilirubin 164  $\mu$ mol / l, (direct 122, indirect 42), ALT 38 IU / l, AST 29 IU / l, GGT 96 IU; albumins 40 g / l, cholesterol 8.4 mmol / l. Which of the listed examination methods is informative in this case:
  - a) Ultrasound of abdominal organs
  - b) survey fluoroscopy of abdominal organs
  - c) needle biopsy of the liver
  - d) fibrogastroduodenoscopy
  - e) irrigoscopy
- 6. According to the clinical protocol, a reliable coprological criterion for exocrine pancreatic insufficiency is:
  - a) steatorrhea
  - b) creatorea
  - c) amylorea
  - d) polyfecal
  - e) iodophilic flora

- 7. A simultaneous increase in the level of bilirubin and cholesterol in the blood indicates that the patient has the syndrome:
  - a) cholestasis
  - b) cytolysis
  - c) mesenchymal inflammation
  - d) hepatocellular insufficiency
  - e) portal hypertension
- 8. The main symptom of small intestinal microbial contamination syndrome is:
  - a) diarrhea
  - b) flatulence
  - c) constipation
  - d) ascites
  - e) tenesmus
- 9. Localization of pain in ulcers of the cardiac part of the stomach:
  - a) xiphoid process
  - b) behind the sternum
  - c) in the epigastrium to the left of the midline
  - d) in the epigastrium to the right of the midline
  - e) near the navel
- 10. The main reason for the development of edema in malabsorption syndrome is a decrease in the level of:
  - a) protein
  - b) sodium
  - c) potassium
  - d) iron
  - e) phosphorus
- 11. An informative test for diagnosing exacerbation of chronic recurrent pancreatitis in patients is the determination in the blood of:
  - a) amylases
  - b) trypsin
  - c) elastases
  - d) alkaline phosphatase
  - e) glucose
- 12. Cause of functional dysphagia:
  - a) esophageal paralysis
  - b) esophageal burn
  - c) esophageal diverticulum
  - d) neurosis
  - e) esophageal cancer
- 13. Dysphagia due to paralysis of the esophagus is accompanied by:
  - a) coughing, choking
  - b) vomiting
  - c) spasm
  - d) pain
  - e) high temperature
- 14. Esophageal vomiting is characterized by:

- a) no nausea, heartburn, small volume
- b) presence of nausea, heartburn
- c) appearing 15 minutes after eating
- d) volume about 200 ml
- e) presence of gastric juice in the vomit
- 15. Gastric vomiting is characterized by:
  - a) the presence of nausea, a volume of about 200 ml with gastric juice
  - b) appearing immediately after swallowing food
  - c) insignificant volume
  - d) absence of nausea, heartburn
  - e) the presence of scarlet blood
- 16. Esophageal vomiting manifests itself:
  - a) immediately after swallowing food, in small amounts
  - b) 10-15 minutes after eating, small in volume
  - c) accompanied by pain, nausea, heartburn 15 minutes after eating
  - d) in vomit mucus, gastric juice, blood
  - e) appearing 30-35 minutes after eating, small in volume
- 17. Esophageal vomiting occurs due to:
  - a) spasmodic contraction of the esophageal muscles
  - b) spasmodic contraction of the stomach muscles
  - c) spasmodic contraction of the diaphragm muscles
  - d) spasmodic contraction of the intestinal muscles
  - e) esophageal stenosis
- 18. In case of ulcer disease of the duodenum, pain:
  - a) late, hungry, night, goes away after eating
  - b) early, 30 minutes after eating
  - c) do not go away after eating
  - d) 1 hour after meals
  - e) 1.5 hours after eating
- 19. In case of ulcer or cancer of the cardiac part of the stomach, vomiting occurs:
  - a) 5-10 minutes after eating
  - b) immediately after swallowing food
  - c) 2-3 hours after eating
  - d) 4-6 hours after meals
  - e) 10-12 hours after eating
- 20. With gastritis, ulcers of the stomach body, vomiting occurs:
  - a) 1-2 hours after meals
  - b) 5-10 minutes after eating
  - c) immediately after swallowing food
  - d) 4-6 hours after meals
  - e) 10-12 hours after eating

#### Option 2

1. A 52-year-old woman, a physician, came to the clinic with complaints of heaviness in the right hypochondrium, decreased appetite and weight, and bloating. History: she had viral hepatitis B at the age of 15. On examination: weight 64 kg, height 175 cm; dry skin, bruises in places, telangiectasias

on the neck, palmar erythema, pain in the right hypochondrium. Liver according to Kurlov 15x10-7 cm, spleen 11x5.5 cm. In the tests: bilirubin 19  $\mu$ mol / l; ALT 25 IU / l, AST 30 IU / l, GGT 35 IU; prothrombin index 78%, fibrinogen 7.3 g / l; cholesterol 5.1 mmol / l; Thymol test 12 units, albumins 45 g/l, gamma globulins 25%, ESR 36 mm/h. Which of the biochemical syndromes is likely in this patient:

- a) mesenchymal inflammation
- b) protein-synthetic deficiency
- c) cholestasis
- d) cytolysis
- e) azotemia
- 2. A 50-year-old woman, an economist, came to the clinic with complaints of heaviness in the right hypochondrium, decreased appetite and weight, and an enlarged abdomen. From the anamnesis: she had viral hepatitis in childhood. On examination: malnutrition, skin with a yellowish tint, bruises in places, telangiectasias on the neck and shoulders, palmar erythema. The abdomen is enlarged due to ascites, the umbilicus is protruding, there is a pronounced subcutaneous venous network. Liver size according to Kurlov: 15-10-7 cm, spleen 11x5.5 cm. In the biochemical blood test: bilirubin 57 μmol / l; ALT 23 me/l, AST 31 me/l, prothrombin index 60%, fibrinogen 1.7 g/l, total protein 54 g/l, albumin 26 g/l, cholesterol 2.1 mmol/l.

Which of the biochemical syndromes is likely in this patient:

- a) protein-synthetic deficiency
- b) cytolysis
- c) cholestasis
- d) hyperazotemia
- e) mesenchymal inflammation
- 3. A 50-year-old woman, an economist, came to the clinic complaining of heaviness in the right hypochondrium, itchy skin, loss of appetite and weight, bloating, and weakness. Her medical history includes viral hepatitis at the age of 17. Examination revealed poor nutrition, yellowish tint of the skin, with traces of scratching, xanthelasma on the eyelids, and palmar erythema. Palpation revealed soft abdomen, painful right hypochondrium. Liver size according to Kurlov is 15x10-7 cm, spleen: 11x5.5 cm. Blood tests: total bilirubin  $68.3 \mu mol/l$ , direct 49; ALT 43 IU/l, GGT 112 IU; albumins 40 g/l, cholesterol 8.1 mmol/l; alkaline phosphatase 170 IU/L. Which of the biochemical syndromes is likely in this patient:
  - a) cholestasis
  - b) cytolysis
  - c) hyperazotemia
  - d) mesenchymal inflammation
  - e) protein-synthetic deficiency
- 4. A 36-year-old woman, a teacher, complains of weakness, fatigue, heaviness in the right hypochondrium, and bloating. History: she had viral hepatitis at the age of 12. On examination: normal nutrition, slightly icteric sclera, isolated telangiectasias on the back. On palpation: pain in the right hypochondrium. Liver size according to Kurlov is 13x10x7 cm, spleen 8.0x4.0 cm. In the tests: bilirubin 23.3 μmol/l; ALT 123 IU/l, AST 90 IU/l, GGT 112 IU; albumins 40 g/l, cholesterol 4.1 mmol/l; alkaline phosphatase 76 IU/l. Which of the biochemical syndromes is likely in this patient:
  - a) cytolysis
  - b) azotemia
  - c) cholestasis

- d) mesenchymal inflammation
- e) protein-synthetic deficiency
- 5. A 63-year-old man, a programmer, came with complaints of heaviness in the right hypochondrium, abdominal enlargement, decreased urine output, decreased appetite, weight loss, unstable stool, severe weakness, and bleeding gums. He denies a history of viral hepatitis and has a history of alcohol abuse. General examination reveals poor nutrition, yellowish skin, petechiae and bruises in places. Telangiectasias and palmar erythema are present on the skin of the face, neck, and shoulders. The abdomen is enlarged and pendulous, the navel protrudes, and there is an enlarged venous network on the anterior and lateral abdominal walls. The doctor made a preliminary diagnosis: portal hypertension syndrome.

Which of the following symptoms is characteristic of portal hypertension:

- a) dilated venous network on the anterior and lateral abdominal walls
- b) telangiectasia
- c) petechiae and bruises
- d) palmar erythema
- e) yellowing of the skin
- 6. A 50-year-old male veterinarian came to the emergency room complaining of an enlarged abdomen, decreased urine output, weight loss, unstable stool, weakness, and bleeding gums. History: alcohol abuse. Examination revealed poor nutrition, tremors in the eyelids and hands, icteric skin, petechiae and bruises in places. Telangiectasias and palmar erythema are present in the area of the nose, cheeks, neck, and shoulders. The abdomen is enlarged and pendulous, the navel protrudes, and there is an enlarged venous network around it and on the anterior abdominal wall the head of Medusa. Liver size according to Kurlov is 17x14x10 cm, spleen is 13x7 cm.

Which of the following syndromes is likely in this patient:

- a) portal hypertension
- b) intestinal dyspepsia with malabsorption
- c) hepatic encephalopathy
- d) gastric dyspepsia
- e) cholestasis
- 7. A 55-year-old man, a general laborer, came to the clinic complaining of heaviness in the right hypochondrium, decreased appetite, weight loss, bloating, unstable stool, weakness. From the anamnesis denies viral hepatitis, in the past abused alcohol. On examination body weight is reduced, BMI 17 kg/m2. The skin is icteric, in places there are petechiae and bruises, telangiectasias, palmar erythema, crimson tongue. Moderate pain on palpation in the right hypochondrium, the edge of the liver is dense, the abdomen is enlarged, a network of subcutaneous veins around the navel. The size of the liver according to Kurlov is 13-11-8 cm, spleen 10x7 cm. Which of the following is a likely cause of liver cirrhosis:
  - a) alcohol abuse
  - b) overweight
  - c) drug use
  - d) hepatitis B or C virus
  - e) inflammation of the gallbladder
- 8. A 55-year-old man, a mechanic, came to the clinic complaining of heaviness in the right hypochondrium, decreased appetite, weight loss, bloating, unstable stool, weakness. From the anamnesis denies viral hepatitis, in the past he abused alcohol. On examination the skin has a yellowish tint, poor nutrition, petechiae and bruises in places, telangiectasias. Palmar erythema,

crimson tongue. On palpation - moderate pain in the right hypochondrium, the edge of the liver is dense, the abdomen is enlarged, a network of subcutaneous veins around the navel. The size of the liver according to Kurlov is 14-11-7 cm, spleen 11x6 cm.

Which of the following syndromes is likely to occur in this patient:

- a) liver cirrhosis
- b) exocrine pancreatic insufficiency
- c) inflammation of the gallbladder with stones
- d) irritable bowel syndrome with diarrhea
- e) subhepatic jaundice
- 9. A 44-year-old man complained of: pain in the epigastric region after eating, radiating to the back, fear of eating, vomiting that does not bring relief; mushy fatty stools in large volumes, weight loss. History: alcohol abuse. Undernutrition, muscle atrophy in the limbs, ruby drops. Palpation reveals pain in the epigastrium and left hypochondrium. Blood amylase and urine diastase levels are elevated. The doctor suspected exocrine pancreatic insufficiency syndrome. Which of the following research methods is informative in this case:
  - a) Ultrasound of the pancreas
  - b) endoscopic retrograde cholangiopancreatography
  - c) gastroduodenofibroscopy
  - d) colonofibroscopy
  - e) laparoscopy
- 10. A 48-year-old man, a builder, came to the emergency room complaining of: prolonged pain in the epigastric region after eating, radiating to the back, fear of eating the next meal, vomiting that does not bring relief; mushy fatty stool in large volumes, weight loss. From the anamnesis has been ill for over 7 years, abuses alcohol. On examination sharply decreased nutrition, muscle atrophy in the limbs, ruby drops. On palpation pain in the Chauffard zone, in the epigastrium. Liver size according to Kurlov is 11-9-7 cm. The level of amylase in the blood and diastase in the urine is elevated, in the stool analysis steatorrhea, creatorrhea. Which of the following syndromes is likely in this patient:
  - a) exocrine pancreatic insufficiency
  - b) malabsorption
  - c) intestinal dyspepsia
  - d) irritable bowel syndrome with diarrhea
  - e) inflammation of the gallbladder with stones
- 11. A 53-year-old woman, at a doctor's appointment, complains of severe heartburn and pain behind the breastbone, which intensifies when leaning forward. Your preliminary diagnosis:
  - a) reflux esophagitis
  - b) Zenker's esophageal diverticulum
  - c) chronic gastritis
  - d) chronic pancreatitis
  - e) esophageal cancer
- 12. A 62-year-old man consulted a therapist complaining of weakness, nausea, insomnia at night and drowsiness during the day, abdominal distension, and pain in the right hypochondrium. The pain intensifies after eating fatty and spicy foods and is accompanied by loose stools. The edge of the liver protrudes 6 cm from under the costal arch, is dense, and painful to palpation. The spleen is not palpable, and measures 10x12 cm. Your preliminary diagnosis:
  - a) liver cirrhosis, decompensation stage

- b) liver cirrhosis, compensation stage
- c) liver cirrhosis, subcompensation stage
- d) autoimmune hepatitis type 1

autoimmune hepatitis type 2

- 13. A 20-year-old woman developed dysphagia, a feeling of a "lump" behind the breastbone, after psycho-emotional stress. Dysphagia recurred later with excitement and fatigue. Appetite was preserved, weight did not decrease. Physical examination revealed no pathology. Select the probable cause of dysphagia:
  - a) esophageal spasm
  - b) esophageal cancer
  - c) peptic ulcer of the esophagus
  - d) axial hernia of the esophageal opening of the diaphragm
  - e) herpetic lesion of the esophagus
- 14. A 35-year-old man came to the doctor, complaining of periodic pain in the right half of the chest, bad breath. Dysphagia has occasionally appeared over the past few months. From the anamnesis: often suffers from colds. In this case, we can assume:
  - a) esophageal diverticulum
  - b) esophageal varices
  - c) esophageal-bronchial fistula
  - d) esophageal stenosis
  - e) achalasia of the esophagus
- 15. A 26-year-old man consulted a doctor with the following complaints: pain in the epigastric region that occurs 1-1.5 hours after eating, belching, heartburn. On examination: the tongue is moist, coated with a white coating, the abdomen is soft, moderate pain in the epigastric region. FGDS: diffuse hyperemia of the gastric mucosa, superficial defects of the mucous membrane of the antral part of the stomach up to 0.5 cm in size. Your preliminary diagnosis:
  - a) chronic non-atrophic gastritis, with erosions
  - b) chronic atrophic gastritis
  - c) gastric ulcer
  - d) reflux gastritis
  - e) functional non-ulcer dyspepsia
- 16. A 29-year-old man consulted a doctor complaining of pain in the epigastric region, occurring 1.5-2 hours after eating; belching. On EGD: the mucosa in the pyloric and antral sections of the stomach is hyperemic. Your further diagnostic tactics:
  - a) helicobacter pylori test
  - b) chromoendoscopy
  - c) X-ray of the stomach
  - d) intragastric pH-metry
  - e) electrogastrographic method
- 17. A 40-year-old woman complains at a doctor's appointment of increasing weakness, pain in the epigastric region, especially on an empty stomach and at night, constipation, dizziness, dry skin, pain in the heart area not associated with physical exertion. She had never been ill before, and recently had an unpleasant conflict at work. A diagnostic study is required to confirm the diagnosis:
  - a) fibrogastroduodenoscopy
  - b) electrocardiography
  - c) sigmoidoscopy

- d) consultation with a neurologist
- e) clinical blood test
- 18. A 46-year-old man came to see his family doctor complaining of vomiting sour contents, belching air after eating, discomfort in the epigastric region, and bloating. Palpation revealed pain in the epigastric region. Instrumental examination that needs to be performed on the patient:
  - a) fibrogastroduodenoscopy
  - b) fecal occult blood test
  - c) barium contrast fluoroscopy
  - d) ultrasound examination
  - e) radionuclide study
- 19. A 54-year-old man has been suffering from chronic pancreatitis for 15 years. The simplest way to detect pancreatic calcification is:
  - a) radiography
  - b) laparotomy
  - c) laparoscopy
  - d) irrigoscopy
  - e) cholangiography
- 20. A 40-year-old man, the family doctor diagnosed "Newly diagnosed ulcer of the duodenal bulb". The leading method of examining the patient is:
  - a) FGDS with biopsy
  - b) general blood test
  - c) gastric juice analysis
  - d) fecal occult blood test
  - e) duodenal intubation
- 1. Completing and defending a medical history report.

The form to be filled out is attached to the library collection of the department and the academy.

### Questions of the program for the midterm control 2

#### Border control №2:

- 1. Task to demonstrate practical skills.
  - 1. Questioning and general examination of patients with portal hypertension syndrome.
  - 2. Questioning and general examination of patients with icteric syndrome.
  - 3. Questioning and general examination of patients with hepatocellular insufficiency syndrome.
  - 4. Questioning and general examination of patients with cholestasis syndrome.
  - 5. Questioning and general examination of patients with endocrine system pathology (thyroid gland)
  - 6. Questioning and general examination of patients with endocrine system pathology (pancreas)
  - 7. Palpation of the thyroid gland
  - 8. Palpation of the pancreas
  - 9. Questioning and general examination of patients with hypo- and hyperthyroidism
  - 10. Questioning and general examination of patients with hypo- and hyperglycemia
  - 11. Questioning and general examination of patients with hypo- and hypercorticism
  - 12. Features of palpation in the main syndromes of endocrine system diseases. Diagnostic value.

- 13. Features of interpretation of results of laboratory and instrumental research methods in leading syndromes of endocrine system pathology (hypo-hyperthyroidism)
- 14. Features of interpretation of results of laboratory and instrumental research methods in leading syndromes of endocrine system pathology (hypo-hyperglycemia)

## Option 1

- 1. Mechanism of action of insulin:
  - a) increased glycogen formation
  - b) enhancement of fatty acid formation
  - c) decrease in glucose utilization
  - d) decrease in amino acid utilization
  - e) decrease in protein synthesis
- 2. A 44-year-old woman came to the emergency room complaining of a coarsening of her voice. From the anamnesis, she noticed the above-mentioned change over the past 6 months. Of the previous ones, she notes frequent colds of the upper respiratory tract. On examination, the face is puffy, lethargic, speaks slowly, the voice is low, hoarse, speech is somewhat slurred. Overnutrition, the skin is dry to the touch, dense, flaky. PS 58 bpm, BP 90/60 mm Hg. Heart sounds are somewhat muffled, rhythmic. Which of the following syndromes most likely developed in this case:
  - a) hypothyroidism
  - b) hyperthyroidism
  - c) hypoglycemia
  - d) hyperglycemia
  - e) hypocorticism
- 3. A 35-year-old woman, a school teacher, consulted her family doctor complaining of frequent bouts of irritability recently. During a physical examination, the doctor revealed exophthalmos, infrequent blinking, Graefe and Kocher symptoms. Which of the following syndromes is likely in this patient:
  - a) hyperthyroidism
  - b) hypothyroidism
  - c) hypoglycemia
  - d) hyperglycemia
  - e) hypercorticism
- 4. A 46-year-old man suffering from diabetes mellitus developed agitation, aggression, complaints of a pronounced feeling of hunger and trembling in the hands after an insulin injection.

Which of the following conditions is likely to develop in this case in a man:

- a) hypoglycemia
- b) hypercorticism
- c) hyperglycemia
- d) hyperthyroidism
- e) hypothyroidism
- 5. A 35-year-old man was delivered by an ambulance to the emergency department of the clinic. From the anamnesis according to his wife, he had never been ill with anything before, but over the past year he has lost weight, despite an increased appetite. In the last 2 days, he complained of thirst, pain in the epigastrium, loss of appetite, nausea, there was a single vomiting, he became restless, agitated. During examination the smell of acetone from the mouth, convulsions, vomiting, agitation. PS 110 beats per minute; BP 80/50 mm Hg. During the examination, he became inhibited and fell into a coma.

Which of the following types of coma likely developed in this case:

- a) hyperglycemic
- b) hypoglycemic
- c) apoplectic
- d) uremic
- e) liver
- 6. A 29-year-old woman complains to her local doctor about apathy, decreased interest in the environment, weight gain, memory impairment, drowsiness, lethargy, and a feeling of chilliness that have been bothering her for the past year. She denies any previous illnesses. She underwent surgery for grade 2 nodular goiter 1.5 years ago subtotal thyroidectomy was performed. On examination slow movements, monotonous speech; slightly puffy face, narrowed eye slits. Pale skin with a yellowish tint, increased nutrition. PS 64 beats per minute. BP 100/60 mm Hg. Heart sounds are muffled, rhythmic. Which of the following syndromes is likely to have developed in this woman:
  - a) hypothyroidism
  - b) hyperthyroidism
  - c) hypoglycemia
  - d) hyperglycemia
  - e) hypocorticism
- 7. A 33-year-old female auditor came to the emergency room of the clinic on her own complaining of short sleep, increased appetite, and weight loss over the past 5-6 months. She denies any previous illnesses, but notes a great deal of psychological stress at work. A general examination revealed increased excitability, general motor restlessness, fussiness, poor development of subcutaneous fat, pronounced tremors of the fingers of outstretched hands, and positive Mobius and Graefe symptoms. PS 104 beats per minute. BP 130/90 mm Hg. Heart sounds are rapid, rhythmic, and amplified. Which of the following syndromes is likely in this case:
  - a) hyperthyroidism
  - b) hypothyroidism
  - c) hypocorticism
  - d) hyperglycemia
  - e) hypercorticism
- 8. A 45-year-old man, a driver, undergoing a routine preventive examination was found to have a face with dilated eye slits, increased shine in the eyes, exophthalmos and fidgety movements. A thorough questioning revealed that he had never been ill before, but lost his wife about a year ago and had been in a severe depression for some time. Additional examination in the Romberg position revealed fine tremors in the fingers. PS 100 beats per minute. BP 140/95 mm Hg. Heart sounds are rapid, rhythmic, intensified, with a short systolic murmur at the apex. Which of the following pathological conditions are characterized by these objective changes:
  - a) hyperthyroidism
  - b) hypothyroidism
  - c) hypoglycemia
  - d) hyperglycemia
  - e) hypercorticism
- 9. A 56-year-old woman was delivered by ambulance to the emergency department of City Clinical Hospital No. 4 with suspected hyperglycemia syndrome. Which of the following indicators is informative in confirming this syndrome:
  - a) glucosuria
  - b) hyperproteinemia

- c) hypoproteinemia
- d) cholesteroluria
- e) proteinuria
- 10. A 42-year-old woman, unconscious, was brought from the street to the emergency department of a clinic by an ambulance team. After examination, the emergency room doctor concluded that in this case there are signs of hypoglycemic coma. Which of the following symptoms is pathognomonic for hypoglycemic coma:
  - a) increased tendon reflexes
  - b) lowering blood pressure
  - c) muscle hypotonia
  - d) pupil dilation
  - e) preserved tone of the eyeballs
- 11. An unconscious 47-year-old man was brought to the emergency department of a clinic by an ambulance team from the street. On examination: his face is pinkish, his skin is dry, muscle tone and tendon reflexes are decreased, his pupils are constricted; a large, noisy Kussmaul respiration is heard at a distance. PS weak, frequent. BP 90/60 mm Hg. Heart sounds are muffled, rapid. The abdomen is soft, the liver is at the edge of the costal arch. Spontaneous urination, the color is rich. Which of the following types of coma is likely to occur in this case:
  - a) hyperglycemic
  - b) hypoglycemic
  - c) thyrotoxic
  - d) ischemic
  - e) liver
- 12. A 52-year-old woman, a manager, came to see her local doctor. After questioning and examining her, the doctor determined that the patient had signs of hypothyroidism syndrome. Which of the following characteristic symptoms of cardiovascular damage for this syndrome was revealed during the examination of the woman:
  - a) cardiomegaly
  - b) arrhythmia
  - c) tachycardia
  - d) jumping pulse
  - e) sonority of tones
- 13. A 45-year-old woman, a teacher, consulted an endocrinologist with complaints of obesity, the appearance of red stripes on the skin, rapid fatigue and weakness. From the anamnesis she has been registered for 20 years and takes prednisolone at a dose of 20 mg for rheumatoid arthritis. These changes appeared over the past 2 years. On examination a moon-shaped, moderately hyperemic face. Pronounced muscle mass of the shoulder girdle and upper half of the body. On the skin of the anterior surfaces of the abdomen there are longitudinal stripes of a purple-blue color. PS 118 beats per minute, arrhythmic. BP 150/100 mm Hg. Heart sounds are muffled, rapid.

Which of the following syndromes is likely in this case:

- a) hypercorticism
- b) hypothyroidism
- c) hyperthyroidism
- d) hyperglycemia
- e) hypocorticism
- 14. When examining a 42-year-old man with complaints of severe weakness, sleep disturbances, periodic increases in blood pressure and frequent depression, the emergency room physician

diagnosed hypercorticism syndrome and prescribed a consultation with an endocrinologist. Which of the following objective symptoms are likely in this case:

- a) atrophy of the muscles of the shoulder girdle and legs
- b) amimia
- c) white stretch marks
- d) general weight loss
- e) thickening of the skin
- 15. A young man, 27 years old, an economist, came to see an endocrinologist with complaints of severe weakness and rapid fatigue, frequent dizziness, weight loss, decreased appetite, nausea and increased skin pigmentation. From the anamnesis these complaints appeared about 6 months ago. Previously, he was not ill. Studied in China. Has been working for 3 months. Objectively asthenic, undernourished, muscles are atrophic, strength is reduced. PS 100 beats per minute, small, rhythmic. BP 90/60 mm Hg. Heart sounds are muffled, rapid. In blood tests HB 72 g / l; Er. 2.9  $\times$  1012 / l, L 6.2  $\times$  109 / l; ESR 22 mm / hour. Blood sugar 2.6 mmol / l. Which of the following syndromes is likely in this case:
  - a) hypocorticism
  - b) anemia
  - c) hypothyroidism
  - d) hypoglycemia
  - e) hypercorticism
- 16. A 46-year-old man, a radiologist, was admitted to the internal medicine department with complaints of weight loss, general weakness, malaise, fatigue, frequent fainting, moderate pain in the epigastrium, periodic vomiting, nausea, alternating loose stools with constipation. From the anamnesis previously suffered from pulmonary tuberculosis. Objectively asthenic build, the skin of exposed areas of the body is hyperpigmented. The pulse is small, frequent. BP 80/60 mm Hg. Heart sounds are muffled, rapid. The tongue is moderately coated with a white coating. The abdomen is soft, palpation is painful in the epigastrium.

Which of the following syndromes is characterized by these clinical symptoms:

- a) hypofunction of the adrenal glands
- b) hypofunction of the thyroid gland
- c) hyperfunction of the adrenal glands
- d) gastric dyspepsia
- e) intestinal dyspepsia
- 17. A 39-year-old man came to the emergency room of the clinic with complaints of obesity, especially in the abdomen and neck, frequent headaches, dry skin, bone pain. From the anamnesis: the above complaints appeared during the last year, nothing is connected with them. Objectively: pronounced obesity in the abdomen and neck, atrophy of the muscles of the shoulder girdle and legs, blush on the cheek. PS 112 beats per minute. BP 160/100 mm Hg. Heart sounds are somewhat muffled, rapid, accentuation of the 2nd tone on the aorta, short systolic murmur at the apex. In the lungs harsh breathing, isolated dry wheezing. Blood sugar 7.1 mmol / l. Which of the following syndromes is likely in this case:
  - a) hyperfunction of the adrenal cortex
  - b) arterial hypertension
  - c) hypofunction of the adrenal cortex
  - d) hyperfunction of the thyroid gland
  - e) absolute insulin deficiency
- 18. Imbalance of fat metabolism:

**ACADEMY** 

SKMA

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Pharmacology, Pharmacotherapy and Clinical Pharmacology"

Control and measuring equipment for the discipline "Digestive and endocrine system in pathology"

- a) Itsenko-Cushing's disease
- b) hypofunction of the sex glands
- c) Symonds disease
- d) abuse of foods rich in fat
- e) dystrophy of the genital organs
- 19. The thyroid gland produces:
  - a) T3T4, TSH
  - b) enzymes
  - с) 17-ОКСД7-КС
  - d)insulin
  - e) ACTH
- 20. The pancreas produces:
  - a) insulin
  - b) ACTH
  - c) enzymes
  - d) 17-ОКСД7-КС
  - e) T3T4TTG

#### Option 2

- 1. Insulin stimulates the deposition of carbohydrates in the form of:
  - a) glucose
  - b) lactose
  - c) glycogen
  - d) sucrose
  - e) glucosaminoglycans
- 2. Endocrine glands produce:
  - a) hormones
  - b) anticholinergics
  - c) sympatholytics
  - d) beta blockers
  - e) ACE inhibitors
- 3. Secretions of endocrine glands are released into:
  - a) blood and lymph
  - b) bile
  - c) stomach
  - d) pancreas
  - e) sweat glands
- 4. What is the daily human requirement for iodine:
  - a) 100 mcg
  - b) 50 mcg
  - c) 150 mcg
  - d) 250 mcg
  - e) 1000 mcg
- 5. The basis of the pathogenetic mechanism of development of diffuse toxic goiter is:
  - a) increase in thyroid-stimulating immunoglobulins
  - b) increased secretion of catecholamines
  - c) increased secretion of thyroid stimulating hormone

- d) increased secretion of thyrotropin-releasing hormone
- e) hypersensitivity of tissues to thyroid hormones
- 6. In diabetes mellitus, metabolism is disrupted.
  - a) carbohydrate
  - b) protein
  - c) fatty
  - d) water-salt
  - e) vitamins
- 7. The type of diabetes mellitus (DM) in which destruction of  $\beta$ -cells of the pancreas occurs, leading to absolute insulin deficiency is:
  - a) Type 1 diabetes
  - b) Type 2 diabetes
  - c) gestational diabetes
  - d) secondary SD
  - e) other specific types of SD
- 8. The type of diabetes mellitus (DM) in which there is a progressive impairment of insulin secretion against the background of insulin resistance is:
  - a) Type 2 diabetes
  - b) Type 1 diabetes
  - c) gestational diabetes
  - d) secondary SD
  - e) other specific types of SD
- 9. Type of diabetes mellitus (DM) that develops during pregnancy:
  - a) gestational diabetes
  - b) Type 1 diabetes
  - c) Type 2 diabetes
  - d) other specific types of SD
  - e) secondary SD
- 10. The main diagnostic measure at the outpatient level for type 1 diabetes:
  - a) determination of fasting glycemia and 2 hours after eating
  - b) definition of ICA islet cell antibodies
  - c) determination of C-peptide in blood serum
  - d) determination of TSH, free T4, anti-TPO and TG
  - e) definition of IAA insulin antibodies
- 11. Diagnostic procedure carried out at the stage of emergency care for type 1 diabetes:
  - a) determination of glycemia level
  - b) Ultrasound of abdominal organs
  - c) ECHOCG
  - d) 24-hour ECG monitoring by Holter
  - e) EGDS
- 12. Normally, the concentration of glucose, on an empty stomach, in whole capillary blood (mmol/l) does NOT exceed:
  - a) 5.5
  - b) 7,8
  - c) 6.1
  - d) 11,1
  - e) 6,7

- 13. Frequency of examination of general blood analysis in patients with type 1 diabetes:
  - a) 1 time per year
  - b) 1 time in 3 months
  - c) at least 4 times daily
  - d) 1 time per year (if no changes)
  - e) according to indications
- 14. A 50-year-old woman with excess body weight has twice been found to have an increase in fasting glycemia levels to 6.9 and 7.2 mmol/l. Your preliminary diagnosis:
  - a) Diabetes mellitus type 2
  - b) Obesity
  - c) Type 1 diabetes mellitus
  - d) Impaired fasting glucose
  - e) Impaired glucose tolerance
- 15. A 33-year-old woman consulted a doctor complaining of weakness, increased fatigue, and irritability. History: subtotal thyroidectomy, took 50 mcg of L-thyroxine. Objectively: the face is pasty, heart sounds are muffled. BP is 100/70 mm Hg. ECHO-CG reveals fluid in the pericardial cavity. Name the research method that is informative:
  - a) Determination of T3 and T4 levels
  - b) ECG
  - c) Blood culture
  - d) Tomography of the mediastinal organs
  - e) 24-hour blood pressure monitoring
- 16. Frequency of general urine analysis examination in patients with type 1 diabetes:
  - a) 1 time per year
  - b) 1 time in 3 months
  - c) at least 4 times daily
  - d) 1 time per year (if no changes)
  - e) according to indications
- 17. Frequency of examination for determination of ketone bodies in urine and blood in patients with type 1 diabetes:
  - a) according to indications
  - b) 1 time in 3 months
  - c) at least 4 times daily
  - d) 1 time per year (if no changes)
  - e) 1 time per year
- 18. The cause of death in type 1 diabetes is:
  - a) gangrene of the lower extremities
  - b) ketonemic coma
  - c) hyperosmolar coma
  - d) myocardial infarction
  - e) diabetic nephropathy
- 19. Complaints in diabetes:
  - a) polydipsia, polyuria, bulimia, exhaustion
  - b) tendency to sleep, forgetfulness
  - c) weakness, adynamia, joint pain
  - d) headaches, palpitations, swelling
  - e) irritability, palpitations, sweating, exhaustion

- 20. Appearance of a patient with hypothyroidism:
  - a) peeling skin, yellowness, increased turgor, cold sweat
  - b) drooping upper eyelid
  - c) convergence disorder of the eyes:
  - d) eye flickering more often
  - e) exophthalmos
- 2. Defense and completion of the educational medical histor