

**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 "Fundamental Medicine"

Specialty 05/31/01 General Medicine

1. List of competencies formed by the discipline or in formation which discipline is involved:

Code competencies	Content of competencies (results of mastering the EP)
OPK 7	ready to use basic physical, chemical, mathematical and other natural science concepts and methods when solving professional problems;
OPK 8	ready for the medical use of drugs and other substances and their combinations in solving professional problems;
OPK 9	capable of assessing morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems;
PC 5	ready to collect and analyze the patient's complaints, his medical history, examination results, laboratory, instrumental, pathological, anatomical and other studies in order to recognize the condition or establish the presence or absence of the disease

test tasks(the answer in bold is correct)

The content of liquid media in the body of an adult healthy person based on body weight is (%):

- 1) **55-60;**
- 2) 45-50;
- 3) 75-90;
- 4) 30-40.

In the body of an adult, blood makes up the percentage of body weight (%): 1)

- 1) **6-8;**
- 2) 20;
- 3) 16-18;
- 4) 28.

The hematocrit indicator for a healthy adult at rest is (%): 1) for men 30-33, for women 70-72;

- 2) for men 50-55, women 50-53;
- 3) for men and women 55-60;
- 4) **in men 44-48, women 41-44.**

The number of red blood cells in the blood of a healthy adult male is: 1)

- 1) $5 \cdot 10^9 / l$;
- 2) $8 \cdot 10^{12} / l$;
- 3) $4.5 - 5.5 \cdot 10^{10} / l$;
- 4) **$4.5 - 5.0 \cdot 10^{12} / l$.**

The number of red blood cells in the blood of a healthy adult woman is: 1)

- 1) $5 \cdot 10^9 / l$;

- 2) $8 \cdot 10^{12}/l$;
- 3) $4.5-5.5 \cdot 10^{12}/l$;
- 4) **$3.8-4.5 \cdot 10^{12}/l$.**

In the blood of a healthy man, the amount of hemoglobin is (g/l): 1)

- 130-160;**
- 2) 115-130;
- 3) 170-190;
- 4) 90-100.

In the blood of a healthy woman, the amount of hemoglobin is (g/l): 1)

- 90-100;
- 2) 135-160;
- 3) **120-140;**
- 4) 170-190.

The color index of blood is: 1) 0.1-1.0;

- 2) 45-50;
- 3) 1-2;
- 4) **0.8-1.0.**

The normal ESR value in men is (mm/h): 1) **1-10;**

- 2) 40-45;
- 3) 2-15;
- 4) 30-40.

The normal ESR value in women is (mm/h): 1) **2-15;**

- 2) 1-10;
- 3) 40-50;
- 4) 30-40.

The amount of albumin in blood plasma is (g/l): 1)

- 8-10;
- 2) 15-30;
- 3) 68-80;
- 4) **38-50.**

The liquid internal environment of the body consists

of: 1) **blood and gastric juice**

- 2) blood and intestinal juice;

3) gastric and intestinal juice;

4) blood, lymph, tissue fluid.

Enzymes (enzymes) in chemical structure are (mainly) 1) ionized form of metals

2) glycolipid complexes

3) **protein molecules**

4) individual amino acids are called coenzymes

1) **non-protein part of the enzyme**

2) the protein part of the enzyme

3) enzyme inhibitor

4) enzyme activator

Coenzymes are:

1) inactive enzyme precursor molecules

2) specific enzyme inhibitors

3) allosteric modulators

4) **factors of non-protein nature, in the presence of which the apoenzyme exhibits catalytic activity.** The protein part of a complex enzyme is called 1) a coenzyme

2) prosthetic group

3) **apoenzyme**

4) effector

Leukocytes are characterized by:

1) participation in gas exchange

2) polarity

3) functioning in the lumen of blood vessels

4) the presence of organelles of extracellular biosynthesis

5) the ability for independent movement (movement) and participation in protective reactions

In the cerebellar cortex the main cells are:

1) basket-shaped

2) small stellate

3) Golgi cells

4) granule cells

5) pear-shaped

The proximal part of the nephron is lined with epithelium:

1) single-layer single-row prismatic edged

- 2) single-layer, single-row flat
- 3) single-layer double-row cubic
- 4) single-layer multi-row prismatic flickering
- 5) single-layer single-row cubic

Substances contained in the secretory granules of atrial cardiomyocytes are involved in:

1) regulation of blood pressure

- 2) regulation of thrombus formation
- 3) regulation of vascular permeability
- 4) modulation of immune responses
- 5) generation of electrical impulse

The alveoli do not collapse during exhalation due to the fact that:

- 1) their wall contains smooth myocytes
- 2) in the interalveolar septa there are smooth myocytes that regulate alveolar lumen

3) their inner surface is covered with surfactant

- 4) alveolocytes lie on the basement membrane
- 5) in the interalveolar septa there are collagen and elastic fibers.

A diagnostic method aimed at detecting a pathogen in the test material and identifying it

- 1) microscopic

2) microbiological

- 3) genetic
- 4) serological

The period of the infectious process, characterized by the most complete symptoms

- 1) prodromal
- 2) incubation

3) height

Recombinant yeast vaccine is used to prevent 1) rubella

- 2) measles

3) hepatitis B

- 4) polio

Material from a patient with meningococcal meningitis

1) fingerprint swabs from the nasal mucosa, a swab from the conjunctiva

2) **smear from the mucous membrane of the nasopharynx, cerebrospinal fluid, blood**

3) urine, feces, saliva

The main routes of transmission of

poliomyelitis 1) transplantation, parenteral

2) nutritional, airborne

3) sexual, intranatal

What is the main link in the pathogenesis of traumatic shock? 1) Metabolic disorder.

2) Excessive pain afferentation.

3) Hormonal imbalance.

4) Lipid metabolism disorder.

The process that promotes hyperonkemia at the site of inflammation? 1)

Strengthening the synthesis of carbohydrates.

2) Reduced protein synthesis.

3) Increasing protein due to cell destruction.

How does the urine reaction change during metabolic acidosis?

1) The acidity of urine increases.

2) The acidity of urine decreases.

3) Does not change.

What underlies the development of the pathochemical stage of delayed-type allergy?

1) Release of lymphokines.

2) Isolation of leukotrienes.

3) Release of histamine and serotonin.

4) Release of kinins and prostaglandins.

What changes in the Price-Jones curve should be expected in iron deficiency anemia?

1) Shift left.

2) Shift to the right.

3) There will be no changes.

Note the main groups of causes of reflex sinus tachycardia: 1) Decrease in blood pressure

2) Pain

3) Hypoxia

4) All listed

Name the main hemodynamic indicator that determines the value of blood pressure:

1) Vascular resistance.

2) Blood flow speed.

3) Concentration of adrenaline in the blood.

During which process in the kidneys can the maximum amount of protein be excreted in the urine? 1) Chronic kidney failure.

2) Acute kidney failure.

3) Nephrotic syndrome.

The following takes part in the formation of ascites in portal hypertension of hepatic origin:

1) Decrease in hydrostatic pressure in v. porta.

2) Inhibition of the renin-angiotensin-aldosterone system.

3) Increasing vascular permeability

How do blood glucose levels change with adrenal insufficiency? 1) Increases

2) Does not change

3) Decreases

What part of the central nervous system is affected by bulbar palsy?

1) Cerebral cortex

2) Spinal cord

3) Hypothalamus

4) Medulla oblongata

What type of metabolic disorder will lead to the development of microangiopathy in diabetes mellitus?

1) Carbohydrate and protein.

2) Fat.

3) Water-electrolyte.

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The method of measuring hearing acuity is called 1)

phonography

2) noise metry

3) audiometry

4) auscultation

Electroencephalography is the registration of 1) biopotentials of tissues and organs for diagnostic purposes

2) biopotentials that arise in the heart muscle when it is excited

3) bioelectric activity of muscles

4) bioelectric activity of the brain

Farsightedness, as one of the disadvantages of the optical system of the eye, is that the back focus in the absence of accommodation lies:

1) in front of the retina

2) behind the retina

3) away from the retina

4) on the retina

They use 1) infrared radiation in a solarium

2) ultraviolet

3) gamma radiation

4) alpha radiation

In fluorography, 1) alpha radiation is used to obtain an image.

2) visible

3) x-ray

4) thermal

5) betta

Half-life

1) Time during which the concentration of the drug in the blood plasma decreases by 2 times

- 2) Time during which the effect of the drug decreases by 2 times
- 3) Time during which the concentration of the drug in the blood plasma increases by 2 times
- 4) Time during which the concentration of the drug in the body decreases by 2 times
- 5) The time during which the effect of the drug increases by 2 times. The

mechanism of action of fluoxetine

- 1) Inhibition of neuronal reuptake of norepinephrine
- 2) Inhibition of neuronal reuptake of dopamine

3) Inhibition of neuronal reuptake of serotonin

- 4) Inhibition of intraneuronal MAO type B
- 5) Inhibition of intraneuronal MAO type A. The leading factor in the hypotensive effect of beta-blockers
- 1) Increase in heart rate and IOC
- 2) Decrease in BCC
- 3) Decreased activity of the renin-angiotensin-aldosterone system

4) Decrease in heart rate and IOC

- 5) Decrease in OPSS

A drug from the glucocorticoid group

1) Hydrocortisone

- 2) Deoxycorticosterone
- 3) Corticotropin for injection
- 4) Retabolil
- 5) Aldosterone

Function of sulbactam in combination penicillin preparations 1)

Disrupts cell wall synthesis

- 2) Disturbs protein synthesis
- 3) Disturbs the function of the cytoplasmic membrane

4) Inhibits beta-lactamase

Which canal passes through the pyramid of the temporal bone? 1). visual channel

2).facial canal

- 3). condylar canal
- 4). pterygoid canal