

**Assessment tools for conducting attestation  
in discipline « Sports medicine»  
for students of 2021 year of admission  
under the educational programme  
cipher 31.05.01 Medical business,  
specialisation (profile) Medical business  
(Specialist's degree),  
form of study full-time  
for the 2025-2026 academic year**

**1. Evaluation tools for conducting current certification in the discipline**

1. 1. Evaluation tools for conducting certification in seminar-type classes

Certification in seminar-type classes includes the following types of tasks: preparation of presentations and / or essays in a small group or individually with the possibility of subsequent defense (presentation of a report), an interview on control questions.

1.1.11.1. Examples of presentation topics and / or research papers

Verifiable indicators of competence achievement: PC-3.3.1; PC-3.3.2; PC-4.3.1; PC-4.3.2.

- 1) The concept of sports medicine. Content, history, and organization of sports medicine.
- 2) Methods of studying the nervous system in physical culture students and athletes of various age groups.
- 3) Methods of studying the external respiratory system in physical culture and sports. Sports heart. Methods of research of the cardiovascular system.
- 4) Modern ideas about fitness. Functional tests in the assessment of the medico-biological component of fitness.
- 5) Methods for assessing physical performance. The concept of physical performance. Submaximal and maximal tests for studying physical performance.

1.1.21.2. Examples of control questions for an interview

Verifiable indicators of competence achievement: PC-3.3.1; PC-3.3.2; PC-4.3.1; PC-4.3.2.

- 1) Medical and pedagogical supervision (VPN). Content and tasks of the VPN. Research methods for conducting VPN.
- 2) Medical assessment of sports uniforms. Self-control during physical education and sports.
- 3) Fatigue and recovery in the system of training qualified athletes.
- 4) Classification of medical means for restoring athletic performance.
- 5) Principles of application of medical means of recovery in different periods of preparation of athletes.

1.2. Assessment tools for students ' independent work

Evaluation of independent work includes testing.

1.2.1. Examples of test tasks with a single answer

Verifiable indicators of competence achievement: PC-3.3.1; PC-3.3.2; PC-4.3.1; PC-4.3.2.

1. The strength index of the physique takes into account all of the above, except
  - a) standing height
  - b) body weight

- c) chest circumference on inspiration
- d) neck circumference

2. The rational type of reactions to physical activity includes:

- a) normatonic
- b) hypotonic
- c) hypertensive
- d) stepwise
- e) dystonic

3. The optimal pulse rate mode, at which physical activity should be stopped, is

- a) 120 v/ min
- b) 140 v/ min
- c) 150 v/ min
- d) 170 v/ min
- e) 200 v/ min

4. The normally acceptable reduction in breath retention time in the respiratory load test is

- a) up to 40%
- b) up to 50%
- c) up to 60%
- d) up to 70%

5. Athletes who are characterized by the development of bradycardia are athletes

- a) speed trainers на скорость
- b) strength trainers на силу
- c) endurance athletes на выносливость
- d) gymnasts
- e) chess players

6. The rate of ascent in the Harvard step test is

- a) 10 times per minute
- b) 20 times per minute
- c) 30 times per minute
- d) 40 times per minute
- e) 50 times per minute

7. With a forced decrease in the athlete's body weight, b-lipoproteins in the blood

- a) increase
- b) decrease
- c) remain unchanged
- d) may increase or decrease

8. The average PWC scores for women aged 20-29 are

- a) 550-750 kgm/ min
- b) 550-400 kgm/ min
- c) 400-300 kgm/ min
- d) 300-200 kgm/ min

10. The tasks of sports selection at the stages of physical training are to select all of the above, except

- a) the most promising children, based on the requirements of the sport
- b) choosing the most appropriate sports activity for each teenager
- c) healthy children and adolescents, taking into account the rate of sexual development
- d) athletes with high levels of aerobic and anaerobic performance

#### 1.2.2. Examples of multiple choice and/or matching and/or sequencing test tasks

Verifiable indicators of competence achievement: PC-3.3.1; PC-3.3.2; PC-4.3.1; PC-4.3.2.

1. The contingent of athletes and physical culture students subject to medical examination in a medical and physical culture dispensary consists of
  - a) athletes of national teams in the sports of republics and cities
  - b) students of schools and universities assigned to special groups for physical education classes
  - c) young athletes, students of sports schools and DSO
  - d) persons engaged in mass physical education

2. The system of organization of medical control over занимающимися physical culture and sports participants includes:
  - a) medical supervision of athletes is carried out by general practitioners of polyclinics
  - b) medical supervision of physical education of students is carried out by pediatricians of polyclinics
  - c) medical supervision of athletes is carried out by medical and physical culture dispensaries and medical control rooms of polyclinics
  - d) medical supervision of physical education of students is carried out by sports doctors of the WFD and polyclinics

3. The medical report for a dispensary examination of an athlete includes:
  - a) health assessment
  - b) functional state and physical performance of the body
  - c) assessment of physical development
  - d) the regime of training loads and therapeutic and preventive measures

4. The volume of medical examination of athletes (general) includes
  - a) general and sports history
  - b) medical examination, physical development study
  - c) carrying out functional tests with physical activity
  - d) general blood and urine tests

5. The concept of athlete training includes
  - a) the state of health and functional state of the body
  - b) physical fitness level
  - c) the level of technical and tactical training
  - d) the level of psychological (strong-willed) training

6. The technical and physical qualities necessary for an athlete in martial arts include:
  - a) the activity of attacking and defensive actions and the variety of these actions
  - b) physical endurance
  - c) mental stability
  - d) reaction rate

7. The main types of thermoregulation include

- a) chemical
- b) physical
- c) electric
- d) biological and bioelectric

8. Factors of prevention of sports injuries when using various sports equipment include:

- a) timely monitoring of the technical condition and attachment of shells
- b) control over the means of insurance and protective devices
- c) the presence of instructions for maximum permissible loads on projectiles
- d) technical training of the athlete

9. Find a match based on the information provided in the video lecture and your own knowledge:

The number of people tested by physical activity:

- 1. Those engaged in physical education
- 2. Not doing physical education
- 3. Athletes
- 4. High-class athletes
- 5. Patients with cardiovascular diseases in the hospital

Type of functional test with physical activity:

- A. Special complexes of therapeutic gymnastics
- B. Determination of PWC170 on a bicycle ergometer
- B. Determination of exercise tolerance
- D. Step-up power test "to failure"
- D. Martinet's test Мартине

10. Find a match based on the information provided in the video lecture and your own knowledge:

Symptoms:

- 1. An increase in systolic blood pressure of more than 160-180% from baseline, an increase in diastolic blood pressure of more than 10 mm Hg, an increase in pulse rate of more than 80 per minute
- 2. The appearance of the "infinite tone" phenomenon after 20 squats
- 3. The maximum increase in systolic blood pressure is not immediately after exercise, but at 2-3 minutes of recovery
- 4. A significant increase in the pulse rate (excitability of the pulse is more than 100%)

Type of response of the cardiovascular system to physical activity:

- A. Hypertonic type
- B. Step type
- B. Asthenic type
- D. Dystonic type

### 1.2.3. Examples of open-ended tasks (open-ended questions)

Verifiable indicators of competence achievement: PC-3.3.1; PC-3.3.2; PC-4.3.1; PC-4.3.2.

1. On the athlete's ECG, the P wave is not changed. QRS = 0.12"; QRS V4-6 are represented by a shallow Q prong, a narrow R prong, and a wide S prong. QRS V1-2 complexes are deformed. The ST V1-2 segment is below the contour line. The T wave V1-2 is negative. Internal deviation time in V1-2 = 0.045". Name the pathology indicated by the ECG data.

2. A young athlete fell and scratched his skin in the area of the knee joint. The last CDV vaccination was given to him at the age of 5. What kind of immunization should be performed?

3. A young man turns after being hit in the eye with a baseball. What is the most alarming symptom for post-traumatic glaucoma?

4. A marathon athlete at rest has normal baseline blood counts. After the competition load, there was a moderate decrease in hemoglobin, a decrease in glucose by 10%, an increase in lactate by 50%, and urea by 40%. What is the athlete's fitness level?

5. Your presumptive diagnosis if the athlete has epigastric pain accompanied by a significant increase in the activity of serum enzymes (AsAT, LDH-1, LDH-2, CPK, aldolase).

## 2. Evaluation tools for conducting intermediate certification in the discipline

Intermediate certification is carried out in the form of a test (testing in online mode on the portal [elearning.volgmed.ru](http://elearning.volgmed.ru)).

### 2.1. Examples of test tasks

Verifiable indicators of competence achievement: PC-3.3.1; PC-3.3.2; PC-4.3.1; PC-4.3.2.

1. Medical supervision of physical education in preschool institutions is carried out in the following forms:

1. medical examination with an assessment of the state of health; 2. medical and pedagogical supervision of physical education classes and outdoor games; 3. sanitary control of places where physical education classes are held; 4. sanitary and educational work among staff and parents. Choose the correct answer using the following scheme:

- a) if the correct answers are 1, 2 and 3
- b) if the correct answers are 1 and 3
- c) if the correct answers are 2 and 4
- d) if the correct answer is 4
- e) if the correct answers are 1, 2, 3, 4 and 5

2. The criteria for comprehensive assessment of children's health include all of the following:

1. the level of physical development of children; 2. the presence or absence of diseases; 3. the presence or absence of abnormalities in early development; 4. the level of resistance of the body; 5. the level of motor skills. Choose the correct answer using the following scheme:

- a) if the correct answers are 1, 2 and 3
- b) if the correct answers are 1 and 3
- c) if the correct answers are 2 and 4
- d) if the correct answer is 4
- e) if the correct answers are 1, 2, 3, 4 and 5

3. The criteria for comprehensive assessment of children's health include all of the following:

1. the level of physical development of children; 2. the presence or absence of diseases; 3. the presence or absence of abnormalities in early development; 4. the level of resistance of the body; 5. the level of motor skills. Choose the correct answer using the following scheme:

- a) if the correct answers are 1, 2 and 3
- b) if the correct answers are 1 and 3
- c) if the correct answers are 2 and 4
- d) if the correct answer is 4
- e) if the correct answers are 1, 2, 3, 4 and 5

4. The main method for determining the level of resistance of children in mass examinations is:

1. evaluation of the leukocyte formula in a clinical blood test; 2. determination of the multiplicity of acute diseases for the year preceding the examination; 3. determination of blood lysozyme activity; 4. skin thermometry. Choose the correct answer using the following scheme:

- a) if the correct answers are 1, 2 and 3
- b) if the correct answers are 1 and 3
- c) if the correct answers are 2 and 4
- d) if the correct answer is 4

5. The purpose of medical supervision of those engaged in mass forms of physical culture is not:

1. determination of the state of health and physical development; 2. organization of regular examinations 4-5 times a year; 3. control of sanitary and hygienic conditions of physical education; 4. promotion of effective physical education and sports classes with people of different ages and genders; 5. development of rational training methods. Choose the correct answer using the following scheme:

- a) if the correct answers are 1, 2 and 3
- b) if the correct answers are 1 and 3
- c) if the correct answers are 2 and 4
- d) if the correct answer is 4
- e) if the correct answers are 1, 2, 3, 4 and 5

6. Types of sports selection are

- a) preliminary
- b) specialized, promising
- c) qualification document
- d) pre-Olympic and Olympic games
- e) all of the above

7. Specify diseases that prevent admission to children's and youth sports schools

- a) hypertension
- b) myopia (up to -1.5)
- c) epilepsy
- d) a history of pleurisy
- e) mental illnesses

8. The control test for determining the quality of endurance in children is

- a) lifting the barbell
- b) running for 100 meters
- c) running with an obstacle
- d) running for 800 meters

9. Classes with students assigned to a special group are mainly held

- a) in a medical and physical culture dispensary
- b) at school according to special physical education curricula
- c) in the physical therapy room of the polyclinic
- d) in the medical control room of the polyclinic

10. Signs of hypokinesia in schoolchildren are

- a) increased resting pulse rate
- b) reduced deadlift
- c) increased thickness of the subcutaneous fat fold
- d) reducing the maximum power of exhalation
- e) all of the above

Considered at the department meeting of Medical Rehabilitation and Sports Medicine protocol of «30» May 2025 г. №13.

Head of the Department

A handwritten signature in blue ink, appearing to read 'E. G. Vershinin', with a stylized flourish at the end.

E. G. Vershinin