

**Assessment tools for certification
in the discipline
" Modern technologies in orthopedic dentistry"
for students of the educational program
of the specialty 31.05.03. Dentistry
(specialist's level),
form of study resident
for the 2023-2024 academic year**

1. Evaluation tools for conducting current certification in the discipline

Current certification includes the following types of tasks: testing, solving situational problems, evaluating the development of practical skills, writing and defending an abstract, and interviewing control questions.

1.1.1. Examples of test tasks

Verifiable competencies:OK-1, OPK-4, OPK-6, OPK-7, OPK-9

1. THE CEREC SYSTEM IS DESIGNED FOR MILLING:

- a) metal restorations made of noble alloys
- b) cermet and metal-plastic restorations
- c) all-ceramic (metal-free) restorations
- d) partial removable dentures made of polymers
- e) removable dentures made of polymers

Enter the correct answer number.

2. MINIMUM PRODUCTION TIME FOR CEREC RESTORATION:

- a) 3a per session
- b) for one week
- c) for two sessions
- d) for one month
- e) for four sessions

Enter the correct answer numbers.

3. LIST THE METHODS OF STUDYING THE MASTICATORY MUSCLES:

- a) myotonometry
- b) masticationography
- c) myography
- d) zoning system

Enter the correct answer number.

4. THE MASTICATIONOGRAPHY METHOD ALLOWS YOU TO JUDGE:

- a) on the tone of certain muscles of the masticatory system in various conditions
- b) on the effort expended when chewing food substances of different hardness
- c) on the combined reflex activity of various muscle groups that perform mandibular movements
- c) the degree to which food is crushed during chewing

Enter the correct answer numbers.

5. TO DETECT THE CONDITION OF SOFT TISSUES OF THE TEMPOROMANDIBULAR JOINT, USE:

- a) arthrography

- b) magnetic resonance imaging
- c) arthroscopy
- d) ultrasound diagnostics

Enter the correct answer numbers.

6. THE MAIN INDICATIONS FOR THE USE OF OCCLUSAL SPLINTS:

- a) pain syndrome of musculoskeletal dysfunction
- b) protection of teeth from auto-destruction
- c) for splinting movable teeth

Enter the correct answer number.

7. FOR JOINT SYMPTOMS, A SPLINT IS USED:

- a) uncoupling
- b) relaxation area
- c) a stabilizing one
- d) repositioning system

Enter the correct answer number.

8. FOR THE FIRST TIME, THE PROTECTIVE MOUTHGUARD WAS MADE FROM:

- a) of rubber
- b) plastics

Enter the correct answer number.

9. DIASTEMA IS ELIMINATED BY MAKING A VENEER ON:

- a) first incisors
- b) first and second incisors
- c) incisors and canines
- d) depends on the size of the diastema

Enter the correct answer numbers.

10. CHIPPED CERAMIC VENEERS ARE CAUSED BY PREPARATION ERRORS:

- a) insufficient depth of preparation
- b) location of the veneers ' borders in the occlusal contact area
- c) presence of sharp external and / or internal corners of the stump
- d) smooth transitions of the cavity walls

1.1.2. Example of a situational problem

To Patient K. Orthopedic treatment of dental hard tissue pathology was performed for 35 years. Figures 1 and 2 show the stage of fitting prosthetics to the model.



Figure 1.



Figure 2.

Task:

1. Name the orthopedic structures that are shown in the photos, and list their types. What are the indications for the use of these structures?
2. What materials and technologies are used in the manufacture of these structures.

3. List the clinical and laboratory stages of manufacturing these structures.

1.1.3. Examples of tasks to assess the development of practical skills Tested competencies: PC-2, PC-5, PC-6, PC-8, PC-12, PC-13, PC-18

1.	Preparation of the tooth for a ceramic crown Reading radiographs
2.	Obtaining an anatomical impression with alginate mass Preparation of the tooth for veneers
3.	Making a silicone key Preparation of the tooth for an all-ceramic crown
4.	Preparing a tooth for вкладку a " MOD " tab Modeling a wax tab

1.1.4. Examples of abstract topics

Tested competencies: ОК-1, ОПК4, ОПК-6, ОПК-7, ОПК-9

1. Application of digital technologies for the manufacture of artificial crowns.
2. Causes of breakdowns and alterations of various конструкций prosthetic structures.
3. Issues of asepsis and antiseptics in the orthopedic department in the modern aspect.

1.1.5. Examples of control questions for an interview

Tested competencies: ОК-1, ОПК-1, ОПК-4, ОПК-6, ОПК-7, ОПК-9, PC-12, PC-13, PC-17, PC-18

1. The mechanism of action of occlusal glucose.
2. Classification заболеваний of TMJ diseases.
3. Types of deprogramming devices.
4. The significance of deprogramming of the masticatory muscles in determining central occlusion.

1.2. Evaluation tools for conducting an intermediate certification in the discipline

Intermediate certification is carried out in the form *of a credit*.

Intermediate certification includes the following types of tasks: testing, interviewing.

1.2.1. Examples of test tasks

Tested competencies: ОК-1, ОПК-4, ОПК-6, ОПК-7, ОПК-9

Enter the correct answer number.

1. TIME REQUIRED FOR ETCHING THE ENAMEL DURING ADHESIVE FIXATION:

- a) 60 seconds;
- b) 15-20 seconds;
- c) 90 seconds;
- d) 30 seconds.

Enter the correct answer number.

2. ACID IS USED TO ETCH THE TOOTH :

- a) phosphoric; b)
- hydrofluoric; c)
- salt;
- d) formic acid.

Enter the correct answer numbers.

3. TREATMENT WITH OCCLUSAL SPLINTS IS AIMED AT:

- a) снятие pain relief
- b) removal дисфункции of TMJ dysfunction
- c) reduction of soreness in the masticatory muscles d)
- orthodontic movement of teeth

Enter the correct answer numbers.

4. FOR MUSCULAR DISORDERS , THE USE OF:

- a) uncoupling bus b)
- relaxation bus
- c) a stabilizing tire d) a
- repositioning tire

Enter the correct answer number.

5. FOR JOINT SYMPTOMS A SPLINT IS USED:

- a) uncoupling b)
- relaxation
- c) stabilizing d)
- repositioning

Enter the correct answer number.

6. CEMENTING VENEERS AND CERAMIC CROWNS IS CAUSED BY:

- a) violation of the fixing technology
- b) saliva ingestion during fixation
- c) deep subgingival location of the restoration edges
- d) violation of occlusal relationships between ceramic restorations and teeth

Enter the correct answer number.

7. WHAT IS THE MAIN TYPE OF CEMENT USED FOR GLASS IONOMER FIXING MATERIALS?

- a) phosphate-based products.
- b) phenolates;
- c) polycarboxylate products.
- d) polymethacrylate compounds.

Enter the correct answer numbers.

8. REMOVAL OF HARDENED CEMENT IS CARRIED OUT:

- a) ironer or backhoe
- b) with a spatula
- c) with a special curette
- d) using a probe

Enter the correct answer numbers.

9. THE OCCLUSAL SPLINT IS USED FOR:

- a) changes in the position of the TMJ head
- b) relaxation of the masticatory muscles

c) achieving any orthodontic effect

Enter the correct answer number.

10. DIASTEMA IS ELIMINATED BY MAKING A VENEER ON:

- a) first incisors
- b) first and second incisors
- c) incisors and canines
- d) depends on the size of the diastema

1.2.2. List of interview questions

Verifiable competencies OK-1, OPK-4, OPK-6, OPK-7, OPK-9

#	Questions for the interim assessment	Verifiable competencies
1.	Clinical examination of patients at an orthopedic appointment.	OPK-4, OPK-6, OPK-9, PK-5, PK-6
2.	Analysis of diagnostic models in the articulator. Evaluation of static and dynamic occlusion.	OK-1, OPK-7
3.	Methods for studying the state of the masticatory muscles and temporomandibular joint.	OPK-4, PK-2, PK-8
4.	Speech function diagnostics in orthopedic dentistry.	OPK-9, PK-6
5.	Analysis of aesthetic parameters in orthopedic dentistry.	OPK-7, PK-18
6.	Radiation diagnostics in orthopedic dentistry.	OK-1, PC-5
7.	Assessment of the shape and size of the head, teeth, and face	of PC-2
8.	Features of determining the color of teeth	PC-5
9.	Orthopedic treatment of dental hard tissue pathology with metal-free inserts.	PC-8, PC-12, PC-13
10.	Orthopedic treatment of dental hard tissue pathology with veneers.	PC-8, PC-12, PC-13
11.	Metal-free technologies for manufacturing crowns and bridges: pressed ceramics, glass ceramics, manufacturing structures by milling.	OPK-7, PK-8
12.	The use of gingival masses in the manufacture of ceramic restorations.	OPK-7
13.	Cable-stayed and adhesive-fixed bridge prostheses: indications, materials, types, manufacturing technology.	PC-5, PC-8
14.	The concept of CAD / CAM system.	OPK-7
15.	Laboratory CAD / CAM systems.	OPK-7
16.	Clinical CAD / CAM systems.	OPK-9
17.	Materials for structures produced by CAD / CAM systems.	OPK-7
18.	Stages of development of CEREC technology.	OPK-7
19.	Possibilities of clinical application of CEREC.	OPK-9
20.	Method of obtaining the CEREC optical impression.	PC-8
21.	User interface of the CEREC 3D system.	OPK-7

22.	Modern glass-inomer cements for fixing metal-free orthopedic structures. Composition and properties. Advantages and disadvantages.	PC-8, PC-12
23.	Modern adhesive composite cements. Features. Advantages and disadvantages.	OPK-7, PK-8
24.	Fixing protocol with the use of adhesive composite cements.	PC-8, PC-12
25.	Modern self-adhesive composite cements. Composition and properties. Method of application.	PC-8, PC-12
26.	Types of thermoplastic materials.	OPK-7
27.	Physical and chemical properties of thermoplastics.	OPK-7
28.	Indications for the manufacture of prostheses made of thermoplastic materials.	OPK-9, PK-5, PK-6, PK-8
29.	Classification of occlusal devices.	OK-1
30.	Mechanism of action of occlusive paste.	OPK-9
31.	Classification of TMJ diseases.	PC-6
32.	Types of deprogramming devices:	PC-2, PC-8
33.	Significance of deprogramming of masticatory muscles in determining central occlusion.	PC-2, PC-8

1.2.4. Sample ticket

Federal State Budgetary Educational Institution of Higher Education "Volgograd State
Medical University"
Ministry of Health of the Russian Federation
Department: orthopedic Dentistry with a course in clinical dentistry Discipline: Modern
technologies in orthopedic dentistry Specialty code 31.03.05 Dentistry
Academic year: 20__-20__

Ticket # 6

Questions

:

1. Fixing protocol with the use of adhesive composite cements.
2. Significance of deprogramming of masticatory muscles in determining central occlusion.

M. P. _____ Head of the Department _____ V. I. Shemonaev

The full fund of evaluation funds for the discipline is available in the EIOS VolgSMU by link:
<https://www.volgmed.ru/apprentice/kafedry/kafedra-ortopedicheskoy-stomatologii-s-kursom-klinicheskoy-stomatologii/faylovyi-menedzher/29089/>

Considered at the meeting of the Department for Prosthetic dentistry with course of clinical dentistry
"23" May 2023, protocol No 10.

Head of the Department



V.I. Shemonaev