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КАФЕДРА ОРТОДОНТИИ

# ОРТОДОНТИЯ ORTHODONTICS

Тесты к государственному экзамену



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## **ОРТОДОНТИЯ**

## **ORTHODONTICS**

Тесты к государственному экзамену

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**1. Orthodontics as a specialty is:**

- a) section of orthopedic dentistry;
- b) section of maxillofacial surgery;
- c) separate section of dentistry;
- d) section of pediatric dentistry;
- e) section of therapeutic dentistry.

**2. The direction of FH (Frankfurt's horizontal) plane:**

- a) goes vertically front through the middle of the nose between central incisors along the palatine raphe (suture);
- b) goes horizontally from the right to the left through the lower edge of the orbit and the upper edge of the external acoustic meatus;
- c) crosses the face downward through both edges of the orbit;
- d) crosses the face downward through the external acoustic meatus.

**3. Mid-sagittal plane conventionally divides the head into:**

- a) upper and lower divisions;
- b) left and right halves;
- c) anterior and posterior divisions;
- d) facial and cranial departments.

**4. The direction of the orbital plane:**

- a) goes vertically in front through the middle of the nose between central incisors along the palatine raphe (suture);
- b) goes horizontally from the right to left through the lower edge of the orbit and the upper edge of the external acoustic meatus;
- c) crosses the face downwards through both edges of the orbit;
- d) crosses the face downward through the external acoustic meatus.

**5. The orthopedic treatment of children and teenagers in different period of formation of bite is aimed at:**

- a) prevention of secondary deformations of the dentition;
- b) prevention of malposition of individual teeth;
- c) restoration of aesthetics;
- d) prevention of the development of malocclusion in vertical plane.

**6. Requirements for working plaster casts for orthodontic appliances fabrication are:**

- a) a clear picture of the dentition;

- b) a clear picture of the dentition, alveolar process, transitional fold, frenulum, palate, retromolar area, sublingual space;
- c) a high quality image/impression of soft tissues which will be in contact with an orthodontic appliance;
- d) a high quality impression of the dentition, alveolar process, palate, sublingual space.

**7. The value of the profile aesthetic angle T is:**

- a)  $T = 10^\circ$ ;
- b)  $T < 10^\circ$ ;
- c)  $T > 10^\circ$ ;
- d)  $T = 90^\circ$ .

**8. The orthodontic prevention includes the following actions:**

- a) myotherapy, grinding of incisal edges and cusps;
- b) elimination of reflected traumatic node, elimination of Popov-Godon's phenomenon;
- c) application of orthodontic appliances to treat dentoalveolar anomalies;
- d) complex reconstructive surgery on the jaws.

**9. An instrument for determining the position of the bracket on the tooth crown is:**

- a) a mirror;
- b) a positioner;
- c) tweezers/ porceps;
- d) a retractor;
- e) ligature applicator.

**10. Aesthetic plane of Ricketts passes through the points:**

- a) tr and gn;
- b) n and pg;
- c) prn and pg;
- d) prn and gn;
- e) zy and go.

**11. Measures to prevent for gagging in children while impressions are taken:**

- a) inclining the head forward;
- b) using impression material in small quantities;
- c) exact selection of an impression tray;
- d) using only thermoplastic impression material;
- e) using impression material in high quantities.

**12. Gerlah's method of studying diagnostic models of jaws allows the dentist to:**

- a) identify individual differences in dentition segments;
- b) determine the proportionality of the dentition segments;
- c) explore an individual form of dentition;
- d) differentiate the crowded teeth close position of the teeth resulting from their size due to close position in narrowed and shortened dentition;
- e) explore characteristics of apical bases of the jaws.

**13. The purpose of using preventive orthodontic appliances is to:**

- a) normalize the dentoalveolar system;
- b) consolidate orthodontic treatment results;
- c) prevent dentomaxillary anomalies relapse;
- d) prevent dentomaxillary anomalies development;
- e) treat dentomaxillary anomalies.

**14. The purpose of using the biometrical methods of studying diagnostic casts of the jaws is:**

- a) clarification of orthodontic diagnosis;
- b) choice of the treatment method;
- c) orthodontic appliance fabrication;
- d) detection of central occlusion;
- e) detection of constructive bite.

**15. Snagina's method of studying diagnostical models of jaws allows the dentist to establish:**

- a) the length of the anterior segments of dental arches;
- b) the width of dental arches;
- c) the length of the apical base;
- d) the width of the apical base;
- e) mesial displacement of the posterior teeth.

**16. The base of Persin's classification of dentomaxillary are:**

- a) malocclusion;
- b) anomalies of teeth antagonists occlusion;
- c) morphological changes of the dentition;
- d) esthetic abnormalities;
- e) functional impairments.

**17. Khoroshilkina's diagnosis scheme is based on the following factors:**

- a) morphology;
- b) esthetics;
- c) anatomy;
- d) function;
- e) etiology.

**18. Labial bows are intended for:**

- a) the fixation of a removable appliance;
- b) the retraction of anterior teeth;
- c) the optimization of jaws growth;
- d) the elimination of bad habits;
- e) the normalization of the dentomaxillary system functions.

**19. The diameter of the wire used for the fabrication of the labial bow is:**

- a) 0,4;      b) 0,8;      c) 1,0;      d) 1,2;      e) 0,6.

**20. Orthodontic springs are intended for:**

- a) fixing an appliance in the oral cavity;  
b) moving of individual teeth;  
c) changing the form of the dentition;  
d) moving of a group of teeth;    e) the normalization of the bite.

**21. The geometrical graphic method of Hawley-Herber-Herbst is used to determine:**

- a) an individual dental arch length;  
b) an individual dental arch width;  
c) an individual the form of the upper and lower dental arches;  
d) an individual the length of the anterior segment of the dentition;  
e) the size of the permanent dentition crowns.

**22. The measuring diagnostic methods to determine the space for lower front teeth are:**

- a) Johnson-Tanaka and Moyers method;  
b) Merrifield and Little method;  
c) Korkhaus and Pont method;  
d) Gerlach and Snagina method;  
e) Little and Moyers method.

**23. Johnson-Tanaka method is used to:**

- a) find the general lack of space for the teeth in the dental arch;  
b) forecast the lack of space for the lateral group of permanent teeth in the dentition in the initial period of the mixed occlusion;  
c) find horizontal parameters of the dentition;  
d) diagnose mesial displacement of the lateral teeth groups;  
e) find the optimal form of the dentition.

**24. Diagnostic RPT line (raphe-papillary-transversal) normally passes the level of:**

- a) the contact point of canine and premolar evenly on both sides;  
b) interproximal surfaces of canine and premolar evenly on both sides;  
c) the middle of canines crowns evenly on both sides;  
d) interproximal surfaces of canine and lateral incisor evenly on both sides;  
e) distal interproximal surfaces of the first permanent molars;  
f) the midpoints of the crowns of the first premolars evenly on both sides.

**25. Retention orthodontic appliances are used to:**

- a) eliminate bad habits;
- b) normalize the function of the dentoalveolar system;
- c) prevent the development of dentoalveolar anomalies;
- d) consolidate the orthodontic treatment results and prevent the development of dentoalveolar anomalies recurrence;
- e) treat dentoalveolar anomalies.

**26. The width of the U-shaped bend of the labial bow depends on:**

- a) the position of the canine crown;
- b) the width of the canine crown;
- c) the height of the canine crown;
- d) the distance the tooth must be moved;
- e) the width of the crown of the first premolar.

**27. Operating pressure (atm) in the polymerizer when applying the method of cold-curing self-hardening plastics for the fabrication of orthodontic appliances is:**

- a) 0,5–1,0;
- b) 2,5–3,0;
- c) 4,5–5,0;
- d) 5,0–5,5.

**28. The thickness (mm) of the base plate of an orthodontic appliance is:**

- a) 1,0–1,5;
- b) 2,0–2,5;
- c) 3,0–3,5;
- d) 0,5–1,0.

**29. The wire elements of a both-jaw orthodontic appliance are made:**

- a) before plaster casts are mounted on an occludator;
- b) after plaster casts are mounted on an occludator;
- c) during mounting plaster casts on an occludator;
- d) after basis orthodontic appliance modelling.

**30. Stamped crowns and orthodontic bands are made of a conventional metal liner (mm thick):**

- a) 0,2;
- b) 0,3;
- c) 0,4;
- d) 0,5;
- e) 0,75.

**31. To expand the lower dentition the following screws are used:**

- a) Gast, Jaak, Planas;
- b) Philippe, Bertoni, Biedermann;
- c) Weise, Frenzel, Weller;
- d) Muller, Philippe, skeletonized with one guide pin;
- e) Muller, Planas, skeletonized with two guide pins.

**32. For intermaxillary effects the following screws are used:**

- a) Gast, Jack, Planas;
- b) Philippe, Bertoni, Biedermann;
- c) Weise, Frenzel, Weller;
- d) Kley, Bertoni-Soloveitchik;
- e) Biedermann, Weise, Gast.

**33. For rapid maxillary expansion the following screw is used:**

- a) Weise;
- b) Frenzel;
- c) Biedermann;
- d) Bertoni;
- e) Philippe.

**34. A skeletonized screw must be mounted on the working plaster cast at the following distance from its surface (mm):**

- a) 0,1–0,3;
- b) 0,5–0,7;
- c) 0,8–1,0;
- d) 0,3–0,5.

**35. The types of mounting plaster casts on the articulator used in the fabrication of orthodontic appliances:**

- a) straight, combined;
- b) straight, reverse;
- c) reverse, combined;
- d) straight, reverse, combined.

**36. The procedure of cephalometric analysis:**

- a) uses the same device as for panoramic x-rays;
- b) uses a special x-ray device with a tube moved 1.5 m away from the patient's head;
- c) uses a special x-ray device with the tube move 6m away from the patient's head;
- d) uses the same device as for conventional dental x-ray.

**37. X-ray of temporomandibular joint allows you to explore:**

- a) the jaw growth;
- b) the shape and size of the condylar processes of the mandible, heads and glenoid fossa, the location of the condylar heads;
- c) the shape and size of articular discs;
- d) dynamic and direction of the growth of the mandible condylar processes;
- e) the influence of masticatory muscle function on the jaw growth.

**38. Dynamic exercise is characterised by:**

- a) alternating periods of muscle contraction with a period of relaxation;
- b) the period of constant high muscle tone without alternation with a period of relaxation;



- c) the period of constant muscle relaxation;
- d) smooth muscle relaxation;
- e) abrupt muscle contraction.

**39. In the reduction (degree III) of maxillofacial muscle endurance, static and dynamic exercises are carried out in the ratio of:**

- a) 1 : 1;
- b) 2 : 1;
- c) 1 : 2;
- d) 3 : 1;
- e) 1 : 4.

**40. The functionally-directing orthodontic appliances:**

- a) influence the teeth, or a group of teeth with active force, screws, springs, archwires;
- b) transfer the force of masticatory muscles on the teeth or groups of teeth through the bite planes or inclined planes;
- c) create optimal conditions for the growth and development of the jaws;
- d) combine archwires, springs, screws, inclined plane or a bite planes, shields.

**41. Depending on the aim of use and design orthodontic screws are intended for:**

- a) to move single tooth or groups of teeth;
- b) correction of the dentition shape;
- c) interdention effect;
- d) simultaneous dentition lengthening and widening.

**42. Screws with two guides are intended for:**

- a) widening of the upper dentition;
- b) widening of the lower dentition;
- c) single tooth movement/reposition;
- d) lengthening of the upper dentition;
- e) intermaxillary action.

**43. What is typical of the period of forming temporary occlusion formation:**

- a) an active growth of the jaws;
- b) space between the teeth;
- c) deep bite;
- d) a semicircle shape of the dentitions;
- e) temporary teeth cusps without abrasion.

**44. What is typical of initial and final periods of mixed occlusion:**

- a) a semicircle shape of dentition;
- b) no space between the teeth;
- c) overbite  $\frac{1}{3}$  of the size of lower incisor;

- d) the mixed type of swallowing;
- e) active jaws growth.

**45. What is typical of the period of newborn:**

- a) somatic swallowing;
- b) retrogenia with overjet 14 mm;
- c) an infantile type of swallowing;
- d) a semicircle shape of dentition;
- e) an active sucking function.

**46. Aims for midpalatal suture X-ray:**

- a) to evaluate the suture ossification and structure;
- b) to diagnose the anomaly of terms of the upper incisors eruption;
- c) to evaluate changes in mid-palatal suture during expansion;
- d) to make a decision if surgery is needed for diastema elimination;
- e) to study the structure of visceral cranium.

**47. Myotherapy principles:**

- a) it should be undergone regularly and systematically;
- b) muscles contraction intensity has to be exceeding;
- c) the number of exercises and their duration should be increase with time;
- d) muscles have to be strained abruptly;
- e) muscles have to be strained slowly till the patient feels some tiredness.

**48. 48) Kerbitz plate is used for:**

- a) aligning of single teeth;
- b) the elimination of bad habit of thumb sucking;
- c) the elimination of the habit of lip biting;
- d) the treatment of sagittal malocclusion in permanent bite;
- e) the normalization of breathing function.

**49. The aims of the use of orthodontic appliances are:**

- a) for treatment;
- b) removable;
- c) for profilaxis;
- d) for retention;
- e) combined.

**50. The panoramic x-ray is taken:**

- a) to identify the quantity of teeth;
- b) to identify the position of teeth;
- c) to study the structure of the facial cranium;
- d) to predict the growth of the jaws;
- e) to decide if surgical treatment of diastema is needed.

**51. Angle suggested.....classes of malocclusion:**

- a) 3;    b) 7;    c) 4;    d) 5;    e) 2.

**52. Mesial buccal cusp of the upper first permanent molar is located behind the intertuberculus fissure of the lower first permanent molar:**

- a) Angle class III;                                      c) Angle class I.  
b) Angle class II;

**53. What kind of methods does Hotz method belong to:**

- a) combined    c) surgical;  
b) application of orthodontic appliances    d) prosthetic

**54. What kind of method is used for placing the teeth in lateral segments of removable prosthesis in children:**

- a) with an artificial gum;  
b) without artificial gum;  
c) with and without artificial gum;  
d) any kind of placement.

**55. What kind of method of placing the teeth in the frontal area of removable prosthesis is used in kids:**

- a) without artificial gum;                                      c) with an artificial gum;  
b) with and without artificial gum;                                      d) any kind of placement.

**56. The method of diagnosis to estimate the period of growth of facial bones is:**

- a) an X-ray of a hand;                                      c) a panoramic x-ray;  
b) a TMJ x-ray;                                      d) an x -ray of mid-palatal suture.

**57. Surgical treatment is mostly used in the period of:**

- a) temporary bite formation;                                      d) ormed permanent bite;  
b) mixed bite;                                      e) forming permanent bite.  
c) formed temporary bite

**58. How often should a removable prosthesis be remade in temporary occlusion:**

- a) every 6 months;                                      c) once a year;  
b) every 3 months;                                      d) once in 1,5 year.

**59. Rapid maxillary expanders have to be activated:**

- a) once a week for  $\frac{1}{4}$  turn;                                      c) twice a week for  $\frac{1}{4}$  turn;  
b) daily for  $\frac{1}{2}$  turn;                                      d) daily for 1 full turn.

**60. Frankel activator is used for the treatment of:**

- a) distal open bite;
- b) mesial bite;
- c) crossbite without mandible displacement;
- d) distal deep bite;
- e) anomalies of the dentition shape.

**61. Cephalometry is used to analyse:**

- a) the size and position of the jaws according to the cranial base;
- b) dynamics and direction of the growth of the jaws;
- c) skeletal and dental changes during orthodontic treatment;
- d) the number and position of teeth;
- e) structure of TMJ.

**62. The value of muscle strain during myotherapy depends on:**

- a) age;
- b) functional condition of muscles;
- c) gender;
- d) type of pathology;
- e) psychoemotional condition of a child.

**63. 63) Klammt appliance is used to treat:**

- a) transversal anomalies in a mixed dentition;
- b) sagittal anomalies combined with vertical anomalies in a mixed dentition;
- c) vertical anomalies in a permanent dentition;
- d) sagittal anomalies in a temporary dentition;
- e) sagittal anomalies in a mixed dentition.

**64. Frankel regulator helps to:**

- a) eliminate the pressure of lips and cheeks on the dentition and alveolar processes;
- b) normalize the tongue position and lips tonnes closing/seal/incompetence;
- c) normalize the occlusion in 3 planes;
- d) align single teeth;
- e) narrow the dentition.

**65. Hotz method includes the extraction of:**

- a) temporary canines;
- b) first temporary molars;
- c) second temporary molars;
- d) second premolars;
- e) first premolars.

**66. Gerling-Gashimov appliance is used for:**

- a) vestibular tooth movement;
- b) mesial movement of frontal teeth;
- c) distalization of first upper molars;
- d) gaining space for second premolars;
- e) mesial movement of upper first molars.

**67. Contraindications for vestibular Shonher plate are:**

- a) deep overbite;
- b) congenital distal bite;
- c) open bite caused by tongue sucking and swallowing dysfunction;
- d) open bite caused by mouth breathing;
- e) crossbite.

**68. Surgical manipulations as a part of combined treatment are:**

- a) frenuloplasty;
- b) reconstructive bone operations on jawbones;
- c) exposure of impacted teeth;
- d) corticotomy;
- e) extraction of single teeth.

**69. Removable prostheses used in children are:**

- a) buigel prosthesis;
- b) plate acrylic prostheses;
- c) appliance prostheses;
- d) bridges;
- e) posts.

**70. Fixed mechanical appliances are:**

- a) plate with Gast screw;
- b) Angle appliance;
- c) Gashimov-Gerling appliance;
- d) Klammt open activator;
- e) braces.

**71. What does early extraction mean:**

- a) extraction 1 year before tooth change;
- b) extraction less than 0,5 year before tooth change;
- c) extraction 3 years before tooth change;
- d) extraction 0,5 year before tooth change.

**72. Macrodonia is an anomaly of:**

- a) teeth number;
- b) shape of the teeth;
- c) size of the teeth;
- d) position of the teeth;
- e) terms of tooth eruption.

**73. Hyperdontia is:**

- a) the presence of extra teeth;
- b) absence of tooth germs;
- c) anomaly of tooth shape;
- d) tooth retention;
- e) anomaly of tooth position.

**74. The term «transposition» of the tooth means:**

- a) incorrect position of a tooth, in which the teeth change places with each other;
- b) position of the tooth above the occlusal plane;
- c) tooth-position below the occlusal plane;
- d) torsion of the tooth around its longitudinal axis;
- e) mesial teeth shift.

**75. The term «torsion» of tooth means:**

- a) torsion around the longitudinal axis;
- b) early eruption;
- c) ugly form;
- d) eruption delay;
- e) oral position;

**76. The term «protrusion» of incisors means:**

- a) oral inclination;
- b) vestibular inclination;
- c) lateral shift;
- d) abnormality of eruption sequence;
- e) torsion around the longitudinal axis.

**77. Supernumerary teeth are most often localized in the area of:**

- a) premolars;
- b) incisors;
- c) the first molars;
- d) canines;
- e) second molars.

**78. The term «infraocclusion» describes the arrangement of teeth:**

- a) below the occlusal plane;
- b) above the occlusal plane;
- c) on the level of the occlusal plane;
- d) out of the dental arch.

**79. The terms describing the reduction in the number of teeth:**

- a) hyperdontia, supernumerary teeth;
- b) hypodontia, adentia;
- c) microdontia, macrodontia;
- d) infraposition, supraposition.

**80. The term tooth «uneruption» means:**

- a) eruption delay;
- b) accelerated eruption;
- c) wrong tooth position in which the teeth change places with each other;
- d) microdontia;
- e) hyperdontia.

**81. Etiological factors of impacted teeth are:**

- a) supernumerary teeth;
- b) bad habits;
- c) trauma of tooth germ;
- d) wrong anlage of tooth germ;
- e) lack of space in the dental arch.

**82. The wrong positions of single teeth in the sagittal plane are:**

- a) tooth torsion around its longitudinal axis;
- b) mesial or distal position of posterior teeth;
- c) medial or lateral position of the frontal teeth;
- d) vestibular or oral position of the frontal teeth;
- e) vestibular or oral position of posterior teeth.

**83. Anomalies of teeth position in the vertical plane are:**

- a) tooth rotation around its longitudinal axis;
- b) infraposition of tooth;
- c) supraposition of tooth;
- d) vestibular or oral position of the front teeth;
- e) mesial or distal position of posterior teeth.

**84. Etiological factors of position anomalies of individual teeth are:**

- a) heredity;
- b) bad habits;
- c) dysfunctions of dentoalveolar system;
- d) colds;
- e) lack of space in the dental arch.

**85. Teeth position anomalies in the horizontal plane are:**

- a) medial or lateral position of the frontal teeth;
- b) infraposition or supraposition teeth;
- c) vestibular or oral position of posterior teeth;
- d) mesial or distal position of posterior teeth;
- e) protrusion or retrusion of the frontal teeth.

**86. Diastema treatment would be appropriate:**

- a) before the eruption of the canines;
- b) after the eruption of canines;

- c) before the upper lip frenuloplasty;
- d) after the upper lip frenuloplasty.

**87. Absolute macrodontia is diagnosed when the total sum of mesiodistal dimensions of:**

- a) upper incisors is 32 mm;
- b) upper incisors is more than 34 mm;
- c) lower incisors is more than 27 mm;
- d) upper incisors is less than 32 mm;
- e) upper incisors is more than 32 mm.

**88. Relative macrodontia is diagnosed when the total sum of mesiodistal dimensions of:**

- a) lower incisors is in the range of 25–27 mm;
- b) upper incisors is 30 mm;
- c) upper incisors is in the range of 32–34 mm;
- d) upper incisors is 34 mm or more;
- e) upper incisors is less than 32 mm.

**89. The conditions required for teeth movement are:**

- a) the availability of space in the dental arch;
- b) the elimination of occlusal interference;
- c) reliable fixation of orthodontic appliance and anchorage;
- d) cooperation of a doctor with a patient;
- e) selection of the magnitude and direction of force for tooth movement.

**90. Hypohidrotic ectodermal dysplasia is characterized by clinical symptoms:**

- a) anhidrosis;
- b) multiple congenital adentia;
- c) displasia of the face and skull;
- d) hypotrichosis;
- e) hyperdontia.

**91. To eliminate tooth rotation the following appliances are used:**

- a) an orthodontic appliance with labial bow and W spring;
- b) an orthodontic appliance with labial bow and M-shaped bend;
- c) a multibonding system;
- d) an orthodontic appliance with labial bow and a screw by Gast;
- e) an orthodontic appliance with labial bow with two U-shaped bends.

**92. The anomalies of dentition in the sagittal plane are:**

- a) the narrowing of the dental arch;
- b) the dentoalveolar extension of some segments;



- c) the shortening of the dental arch;
- d) the narrowing of the dental arch;
- e) the extension of the dental arch.

**93. For the treatment of anterior dentoalveolar shortening during the period of deciduous teeth the following acts must be done:**

- a) to eliminate bad habits;
- b) to normalize the function of the dentoalveolar system;
- c) to optimize the growth of the upper jaw;
- d) to check the growth of the lower jaw;
- e) to obtain the intrusion of anterior teeth.

**94. Synonyms for distal occlusion are:**

- a) Angle class II;
- b) prognathism;
- c) prognathic bite;
- d) posterial bite.

**95. The anomalies of dentition in the horizontal plane are:**

- a) the elongation of dental arch;
- b) the narrowing of the dental arch;
- c) dentoalveolar shortening in some segments of the dental arch;
- d) dentoalveolar extension in some segments of the dental arch;
- e) the widening of the dental arch.

**96. The principles of distal occlusion treatment during the deciduous dentition are:**

- a) to create optimal conditions for the growth of the upper jaw;
- b) to create optimal conditions for the growth of the lower jaw;
- c) the eliminate the blocking of and mandibular movements by the maxilla in lateral and anterior area;
- d) to optimize the mandibular growth;
- e) to prevent the maxillary growth.

**97. The principles of treatment of distal occlusion in the period of mixed dentition are:**

- a) to optimize the mandibular growth;
- b) to prevent the maxillary growth;
- c) to normalize dental arch forms;
- d) to normalize functions of the dentoalveolar system;
- e) to create optimal conditions for the growth of the upper and lower jaws.

**98. The principles of mesial occlusion treatment during the deciduous occlusion are:**

- a) to prevent the mandibular growth;
- b) to create optimal conditions for the growth of the upper jaw;
- c) to create optimal conditions for the growth of the lower jaw;
- d) to eliminate of blocking the lower jaw by the upper jaw;
- e) to normalize the form of dental arches.

**99. For the treatment of distal occlusion in mixed dentition the following orthodontic appliances are used:**

- a) Klammt open activator;
- b) Frankel functional regulator;
- c) Frankel activator;
- d) Janson bionator;
- e) Bimler appliance.

**100. Synonyms of mesial occlusion are:**

- a) Angle class III;
- b) progenia;
- c) anterior (mesial, protrusive) occlusion;
- d) posterior bite;
- e) mesiocclusion.

**101. Appliances for the distal movement of the first permanent molars:**

- a) an orthodontic appliance with a screw and a sectoral split; Gerling-Gashimov appliance;
- b) an orthodontic appliance with finger springs; Gerling-Gashimov appliance;
- c) Bynin appliance; Schwartz appliance;
- d) head gear, Herbst-Kozhoharu appliance;
- e) Delaire facemask, Ainsworth appliance.

**102. Appliances for distal movement of the canines:**

- a) an orthodontic appliance with labial bow and two U-shaped bends;
- b) an orthodontic appliance with labial bow with two U-shaped bends and bilateral hooks;
- c) an orthodontic appliance with labial bow with M-shaped bends;
- d) an orthodontic appliance with labial bow and finger springs;
- e) an orthodontic appliance with a skeletonized screw with two guide pins.

**103. The main method of the treatment of absolute macrodontia is:**

- a) surgical;
- b) using orthodontic appliances;
- c) prosthetic;
- d) combined;
- e) myotherapy.

**104. The examination method used to determine the type of jaws growth is:**

- a) orthopantomography;

- b) cephalometry;
- c) studying the diagnostic plaster casts;
- d) panoramic radiography of the jaws;
- e) face-photometry.

**105. In the treatment of open bite, formed due to disorders of swallowing function, a mandatory element of an orthodontic appliance is:**

- a) a lingual arch;      c) a bite plane;      e) a Bertoni screw.
- b) a tongue guard;      d) a labial bow;

**106. The shortening of the mandibular dentition is more common in:**

- a) Angle class II;      c) open bite;
- b) Angle class III;      d) crossbite.

**107. The shortening of the maxillary dentition is more common in:**

- a) Angle class III;      c) open bite;
- b) Angle class II;      d) crossbite.

**108. The main method of treatment of distal occlusion in mixed dentition is:**

- a) using orthodontic appliances;
- b) myotherapy;      d) combined;
- c) prosthetic;      e) surgical.

**109. The posterior border of the basis in partial dentures in children passes:**

- a) behind the canines;
- b) behind the last molars;
- c) behind the first deciduous molars;
- d) in front of the second deciduous molars;
- e) in front of canines.

**110. Band and loop spacemaintainer is used to:**

- a) restore the destroyed crowns of deciduous teeth;
- b) restore the dentition defect after the early loss of deciduous teeth;
- c) prevent tooth displacement toward of the defect after the early loss of deciduous teeth;
- d) restore the destroyed crowns of permanent teeth;
- e) restore the dentition defect after the loss of permanent teeth.

**111. The principles of the treatment of mesial bite during the period of mixed dentition are:**

- a) to optimize the upper jaw growth

- b) to prevent the mandibular growth;
- c) to create the optimal conditions for the growth and development of the upper jaw;
- d) to normalize the shape of dental arches in a transversal direction;
- e) to optimize the mandibular growth.

**112. The contraindications for the application of a combined method for the treatment of the mesial bite in permanent dentition are:**

- a) spacing and diastema in the maxilla;
- b) oral inclination of the lower incisors without crowding;
- c) lower macrognathia;
- d) macroglossia;
- e) spacing and diastema between the lower incisors.

**113. For the treatment of an open bite during the period of deciduous teeth the following orthodontic appliances are used:**

- a) Krauss individual vestibular screen;
- b) Klammt open activator;
- c) Frankel activator;
- d) standard vestibular plate MUPPY with a tongue stopper.

**114. For the treatment of mesial occlusion with a significant overjet between the upper and lower incisors the following orthodontic appliances used during the period of mixed dentition:**

- a) Reichenbach-Bruckle appliance;
- b) Frankel activator;
- c) Wunderer activator with Weise screw;
- d) Frankel functional regulator;
- e) type III Bimler appliance.

**115. The principles of the treatment of mixed and permanent deep bite:**

- a) to achieve the extrusion of posterior teeth;
- b) to achieve the intrusion of posterior teeth;
- c) to achieve the intrusion of anterior teeth;
- d) to achieve the extrusion of anterior teeth.

**116. The main objectives of an orthodontist in the treatment of crossbite with mandibular displacement during the period of deciduous teeth are:**

- a) to create optimal conditions for the growth of the jaws;
- b) to prevent the mandibular growth in case of combination of crossbite with mesial bite;

- c) to optimize the mandibular growth;
- d) to check the upper jaw growth.

**117. The principles of the treatment of open bite in mixed dentition due to the malformation of dentition:**

- a) to achieve the extrusion of posterior teeth;
- b) to achieve the intrusion of posterior teeth;
- c) to achieve the intrusion of anterior teeth;
- d) to achieve the extrusion of anterior teeth.

**118. The treatment of an open bite is determined by:**

- a) the type of jaw growth;
- b) the period of the occlusion formation;
- c) the clinical and morphological kind of an open bite;
- d) the psychological characteristics of the patient;
- e) cooperation with the patient.

**119. The deep bite treatment is effective in the periods of:**

- a) the eruption of the first permanent molars;
- b) the erupting of the third permanent molars;
- c) the eruption of the second permanent molars;
- d) the eruption of temporary canines;
- e) the eruption of permanent incisors.

**120. The principle of extraction of permanent teeth according to orthodontic indications in the treatment of a permanent crossbite with the lower jaw displacement is:**

- a) extraction of the first premolars in the upper jaw on the side of Angle class II;
- b) extraction of the first premolars in the lower jaw on the side of Angle class III;
- c) symmetric extraction of premolars in the upper and lower jaws
- d) extraction of the first premolars in the upper jaw on the side of Angle class III;
- e) the extraction of the first premolars in the lower jaw on the side of Angle class II.

**121. Active orthodontic treatment of deep bite is advisable to start at the age of:**

- a) 13 years;
- b) 5,5 years;
- c) since its detection;
- d) in the period of permanent teeth;
- e) in the period of deciduous teeth.

**122. In the treatment of mesial occlusion in the period of temporary teeth it is not recommended to use:**

- a) Reichenbach-Bruckle appliance;
- b) Frankel activator;
- c) chin-cap;
- d) Delaire facemask.

**123. The definition of the lingual cross-bite is:**

- a) the buccal cusps of the lower posterior teeth overlap the buccal cusps of the upper posterior teeth;
- b) the buccal cusps of the lower posterior teeth are located medially from the upper longitudinal fissures of the posterior teeth;
- c) in the central occlusion the lower incisors overlap the upper ones;
- d) in the central occlusion the lingual cusps of the lower posterior teeth overlap the palatal cusps of the upper posterior teeth.

**124. The principle of mesial bite treatment in the period of permanent dentition is:**

- a) reduction of the mandible size;
- b) reduction of the maxilla size;
- c) optimization of the maxilla growth;
- d) optimization of the mandible growth.

**125. Congenital maxillofacial pathology characterized by the formation of cross-bite is:**

- a) hemifacial microsomia;
- b) the cleft of the upper lip, alveolar process, hard and soft palate;
- c) Pierre Robin syndrome;
- d) oblique facial cleft.

**126. The most common anomalies of dentition in children with congenital isolated cleft lip, upper lip and the alveolar bone in the periods of mixed and permanent dentition are:**

- a) anomalies in the number and position of the upper incisors;
- b) Angle class II;
- c) a buccal crossbite on the affected side;
- d) a lingual crossbite on the affected side;
- e) Angle class III.

**127. Orthodontic treatment of the children with congenital isolated cleft lip, upper lip and alveolar process in the period of mixed and permanent dentition includes:**

- a) fabrication of a palatal obturator;

- b) fabrication of a nasal stent;
- c) the correction of the position of individual upper teeth;
- d) the expansion of the upper dentition;
- e) the extraction of some lower teeth.

**128. The main task for an orthodontist at the first stage of rehabilitation of children with congenital isolated cleft palate, soft and hard palate includes:**

- a) the fabrication of protective plates;
- b) the fabrication of special devices for breastfeeding and normalization of swallowing function;
- c) the fabrication of nasal stent;
- d) the correction of the position of the upper teeth;
- e) the expansion of the upper arch.

**129. The most common disorders of occlusion in children with isolated cleft palate, soft and hard palate during the deciduous dentition are:**

- a) mesial bite due to the underdevelopment of the maxilla, its retro position;
- b) crossbite, due to the expansion of the mandibular arch;
- c) distal bite;
- d) open bite;
- e) deep bite.

**130. The groups of orthodontic appliances used to correct malocclusion in children with congenital isolated cleft palate, soft and hard palate during the permanent dentition are:**

- a) functional orthodontic appliances;
- b) unremovable mechanically-acting orthodontic appliances;
- c) removable mechanical orthodontic appliances;
- d) functional guiding orthodontic appliances;
- e) combined orthodontic appliances.

**131. The purpose of the fabrication of the protective plates at the stage of palate correction is:**

- a) to prevent the food bolus from getting into the surgery area;
- b) to retain postoperative iodoform of swabs;
- c) to normalize the respiratory function;
- d) the formation and deepening of the palate after the healing;
- e) to prevent sticking of nostril on the affected side;
- f) to organize of artificial feeding.

**132. Appliances for the organization of feeding the child with isolated cleft palate, soft and hard palate are:**

- a) an elastic obturator;
- b) a nipple in the nipple;
- c) a nipple with «petal»;
- d) a floating obturator;
- e) a medical plaster.

**133. The advantages of fixed devices with osseous fixation in orthodontic treatment of children with congenital cleft upper lip, alveolar process and palate are:**

- a) fast and effective reposition of the maxillary fragments;
- b) fast adaptation;
- c) full lock;
- d) no laboratory stages;
- e) low cost.

**134. Disorders of individual teeth and the entire dentition in case of unilateral cleft lip, alveolar process and palate are:**

- a) narrowing of the upper dentition;
- b) expansion of the upper dentition;
- c) the presence of supernumerary teeth in the cleft area;
- d) adentia of a lateral incisor on the side of the cleft;
- e) mandible underdevelopment.

**135. During the permanent dentition the orthodontic treatment of children with bilateral cleft lip, alveolar process and palate includes:**

- a) uneven expansion of the narrowed segments of the upper dentition;
- b) movement of individual teeth;
- c) the respiratory function -normalization;
- d) control of the mandibular growth;
- e) normalization of the dental arches relation.

**136. Morphological disorders in the dentition in early loss of deciduous teeth are:**

- a) shortening of the dental arch;
- b) narrowing of the dental arch;
- c) disorders of the permanent dentition eruption;
- d) dentoalveolar shortening in the area of the teeth close to the defect;
- e) anomalies of teeth shape;
- f) anomalies of teeth sizes.

**137. The main advantages of band and loop space maintainer are that:**

- a) it does not interfere with the growth of the jaw
- b) it enables the patient to carry out a good oral hygiene



- c) it is esthetic;
- d) it restores the dentition defect;
- e) it restores speech function.

**138. Indications for the use of multibonding system are:**

- a) any disorders of the occlusion, dental arches form and position of individual teeth during the mixed bite;
- b) any disorders of the occlusion, dental arches form and position of individual teeth during the permanent dentition formation;
- c) any disorders of the occlusion, dental arches form and position of individual teeth in the formed permanent dentition;
- d) any disorders of the occlusion, dental arches form and position of individual teeth in all age periods of the formation of the occlusion;
- e) any disorders of the occlusion, dental arches form and position of individual teeth during the temporary occlusion.

**139. For the treatment of cross bite, the following appliances are used along with multibonding system:**

- a) orthodontic appliances with screws;
- b) Coffin spring;
- c) orthodontic appliances for the rapid maxillary expansion;
- d) transpalatal springs;
- e) Koller spring.

**140. The third phase of the treatment with multibonding system (straight-wire technique) includes:**

- a) leveling and alignment;
- b) control of the vertical position of the incisors;
- c) anchorage control;
- d) molar and premolar control;
- e) correction of cross bite.

**141. The most suitable appliance for space in small unilateral defects (length of a temporary molar) is:**

- a) Nance appliance;
- b) a lingual arch with orthodontic bands;
- c) band and loop;
- d) a palatal arch;
- e) partial removable dentures.

**142. In small bilateral defects of the mandibular dental arch the following appliances are used:**

- a) a lingual arch with orthodontic bands on the first permanent molars;
- b) Gozghorian appliance;
- c) Nance appliance;
- d) partial removable dentures;
- e) band and loop.

**143. Indications for space management are:**

- a) the lack of space in the dental arch more than 3 mm;
- b) the lack of space in the dental arch less than 3 mm;
- c) an absolute macrodontia;
- d) a relative macrodontia;
- e) microdontia.

**144. The inclination of the tooth is:**

- a) an inclination of the longitudinal axis of the tooth crown in the vestibular and oral direction;
- b) an intrusion of the crown;
- c) an extrusion of the crown;
- d) an inclination of the longitudinal axis of the tooth crown in mesiodistal direction;
- e) an inclination of the tooth crown equator in mesiodistal direction.

**145. The fifth «key occlusion» by L. Andrews is:**

- a) an inclination of the longitudinal axis of the tooth crown in the vestibular and oral direction;
- b) an inclination of the longitudinal axis of the tooth crown in mesiodistal direction;
- c) the presence of close contacts between all teeth;
- d) no rotation of incisors and canines;
- e) no rotation of premolars and molars.

**146. The most clearly marked anatomical changes and functional abnormalities are observed in:**

- a) isolated cleft soft and hard palate;
- b) bilateral cleft lip, alveolar process and palate;
- c) unilateral cleft lip and palate;
- d) isolated cleft upper lip;
- e) isolated cleft lip and alveolar process.

**147. Elimination of the deformations of the upper jaw in the first phase of rehabilitation of children with bilateral cleft lip, alveolar process and palate begin with:**

- a) an uneven expansion of the upper dentition;
- b) even expansion of the maxilla;
- c) mandibular expansion;
- d) creating optimal conditions for the growth and development of the jaws;
- e) deciduous teeth grinding.

**148. Type of defect in stage I of teeth and dental arches impairment in children:**

- a) significant defect of the crown with the damage of the pulp;
- b) partial defect of the tooth crown without pulp damage;
- c) dentition defects of great length;
- d) dentition defects 1–2 teeth long;
- e) full defect of a tooth crown with pulp damage.

**149. The etiology of space lack for lower incisors in children during the period of mixed dentition includes:**

- a) disorders in the terms of permanent teeth eruption;
- b) size inadequacy of temporary molars and premolars;
- c) microdontia of permanent incisors;
- d) anomalies of permanent teeth shape;
- e) anomalies of individual teeth position.

## KEYS

№	Key	№	Key	№	Key	№	Key	№	Key
1	c	2	b	3	b	4	c	5	a
6	c	7	a	8	a	9	b	10	c
11	a, b, c	12	a, d	13	a, d	14	a, b	15	c, d
16	a, b	17	a, b, d	18	a, b	19	b, c	20	b, c, d
21	c	22	b	23	b	24	c	25	d
26	b	27	b	28	b	29	b	30	a
31	d	32	c	33	c	34	b	35	a
36	b	37	b	38	a	39	a	40	b
41	a, b, c	42	a, b, e	43	c, d, e	44	b, c, e	45	b, c, e
46	a, c, d	47	a, c, e	48	b, c, e	49	a, c, d	50	a, b
51	a	52	a	53	a	54	a	55	a
56	a	57	d	58	a	59	b	60	a, b, d
61	a, b, c	62	a, b, d	63	a, b, e	64	a, b, c	65	a, b, e
66	c, d	67	a, b, c	68	a, c, d, e	69	b, c	70	b, c, e
71	a	72	c	73	a	74	a	75	a
76	b	77	b	78	a	79	b	80	a
81	a, c, d, e	82	b, d	83	b, c	84	a, b, c, e	85	a, c
86	a, c	87	b, c	88	a, c	89	a, b, c, e	90	a, b, d
91	a, c, d	92	c, e	93	a, b	94	a, b, c, d	95	b, e
96	a, b, c	97	a, b, c, d	98	a, b, d	99	a, b, d, e	100	a, b, c, e
101	a	102	b	103	d	104	b	105	b
106	a	107	a	108	a	109	b	110	c
111	a, b	112	b, c, d, e	113	a, d	114	b, c	115	a, c
116	a, b	117	b, d	118	a, b, c	119	a, c	120	a, b
121	b	122	a	123	b	124	a	125	b
126	a	127	c	128	b	129	a	130	b
131	a, b, d	132	a, b, c, d	133	a, b, c	134	a, c, d	135	a, b, e
136	a, b, c	137	a, b	138	b, c	139	c, d	140	b, d
141	c	142	a	143	a	144	a	145	c
146	b	147	a	148	b	149	d		