

Nr 1. Find the proper definition of sclerotic dentin deposited as a response to external irritation:

- A. it is one of the zones of caries and is characterized by the loss of mineral substance.
- B. it is the response of the pulp-dentin complex to mild irritation and causes a change in the composition of the dentin through accumulating calcified material in the tubules.
- C. it is the response of the pulp-dentin complex to severe irritation or trauma.
- D. it is one of the zones of dentin in the enamel caries formation adjacent to the odontoblastic layer.
- E. it is one of the zones of dentin found in each intact permanent tooth.

Nr 2. Which of the following teeth is **most unlikely** to have two root canals?

- A. mandibular second premolar.
- B. mandibular lateral incisor.
- C. mandibular canine.
- D. maxillary central incisor.
- E. maxillary first premolar.

Nr 3. Which opinion related to leucoplakia **is not** correct?

- A. the high risk of malignancy include the floor of the mouth, lateral and ventral tongue, uvulo-palatal complex and lips.
- B. leukoplakia is a defense reaction against chronic irritants.
- C. tobacco and alcohol consumption as well as candidiasis play a role in leukoplakia etiology.
- D. homogeneous leukoplakia represents epithelial dysplasia in about half of all cases.
- E. leucoplakia is a clinical term descriptive for white plaque or patch on the oral mucosa that cannot be scraped off.

Nr 4. A 24-year-old patient came to the dental office complaining of a slight discoloration of the left central upper incisor. Dental history shows a trauma in childhood in this region. During clinical examination we observe a slight loss of translucency of the crown and a yellowish-brownish discoloration. Cold test confirms the pulp vitality and x-ray shows no periapical changes. The reduction of pulp chamber size is visible. What is **the most likely** diagnosis?

- A. secondary mineralization of the pulp chamber as a result of injury.
- B. pulp necrosis.
- C. root fracture.
- D. endodontic medicaments.
- E. staining substances such as coffee, tea etc.

Nr 5. Which of the following root canal irrigants is effective against oral bacteria and lacks bleaching and tissue dissolving properties?

- A. sodium hypochlorite.
- B. chlorhexidine gluconate.
- C. saline solution.
- D. EDTA.
- E. hydrogen peroxide.

Nr 6. Which of the following bacteria can be observed in the first two days of plaque formation?

- A. fusiform bacilli.
- B. spirochetes.
- C. streptococci.
- D. anaerobic bacteria.
- E. there are no bacteria in the first days.

Nr 7. In differential clinical diagnosis of squamous cell carcinoma the following diseases should be taken into account:

- 1) chronic hyperplastic candidiasis;
- 2) erythroplakia;
- 3) erosive lichen planus;
- 4) leucoplakia;
- 5) chronic discoid lupus erythematosus.

The correct answer is:

- A. 1,3.
- B. 1,5.
- C. 2,3.
- D. 4,5.
- E. 2,4.

Nr 8. A 20-year-old female patient reports severe tooth hypersensitivity, especially to thermal stimuli (hot and cold). She looks frail and underweight. During intraoral examination tooth tissue defects were observed on the lingual surfaces of several maxillary teeth. The tissue was smooth and glossy. What is the **most probable** diagnosis?

- A. dentinogenesis imperfecta.
- B. caries.
- C. erosion.
- D. abrasion.
- E. hypoplastic enamel.

Nr 9. Indicate which of the following statements about MTA is **false**:

- A. shows bacteriostatic activity.
- B. consists mainly of silicon, calcium and zinc oxides.
- C. is recommended for filling resorptive lesions and root perforations.
- D. is recommended for filling retrograde root canals after apicoectomy.
- E. gives good marginal seal.

Nr 10. There are several factors important for the process of enamel demineralization. Indicate the one, which is **irrelevant**:

- A. the presence of lactic and formic acids.
- B. the quality and quantity of saliva.
- C. plaque thickness and its viscosity.
- D. gingival inflammation.
- E. the frequency of fermentable sugar intake.

Nr 11. A 46-year-old male patient reports intermittent lower molar tooth discomfort occurring mainly at biting. The tooth has been restored a few years ago with MOD amalgam. The pain is sharp, lasting only a few minutes at most. Considering the above description indicate, which of the following procedures **should not** be performed?

- A. intraoral examination.
- B. periapical X-ray.
- C. root canal treatment.
- D. percussion test.
- E. pulp vitality tests.

Nr 12. Which of the following sentences about *Dentinogenesis imperfecta* is true:

- A. it is hereditary disorder.
- B. it is observed when ameloblasts and odontoblasts are injured during tooth formation.
- C. it can result from high fever or fluorosis.
- D. Billings classification is used for describing its advancement.
- E. enamel and dentin are defective in form or calcification.

Nr 13. Enamel hypoplasia is most commonly observed on the surface of first molars and anterior teeth, and enamel formation disorder always results in pitted enamel creation.

- A. both sentences are false.
- B. 1-st sentence is false, 2-nd sentence is true.
- C. 1-st sentence is true, 2-nd sentence is false.
- D. both sentences are true and there is relation between them.
- E. both sentences are true and there is no relation between them.

Nr 14. A properly placed pin can improve the retention of an extensive amalgam restoration. What condition(s) should be fulfilled for ideal pin localization?

- A. it must be localized in the central part of the preparation.
- B. it should be placed at dentino-enamel junction (DEJ).
- C. it should be placed 2mm from DEJ into dentin and covered with 1mm thick layer of restorative material.
- D. it should be placed 0.5mm from DEJ into dentin and covered with 2mm thick layer of restorative material.
- E. it must be completely covered with base material.

Nr 15. From the following sentences covering issues about reactionary dentin, choose the one which contains false information. Reactionary dentine:

- A. is deposited between the dentin and the pulp.
- B. can have the structure of well organized tubular dentin with dentinal tubules regularly distributed.
- C. is called the translucent zone.
- D. is not deposited in pulpless teeth.
- E. is not deposited if the blood supply is not adequate.

Nr 16. The pulp-dentin complex response to irritation caused by the carious lesion can be sclerotic, reactionary or reparative dentine formation or pulp inflammation because the level of reaction depends on the intensity and duration of the caries attack and the adequacy of pulpal blood supply.

- A. both sentences are false.
- B. 1-st sentence is false, 2-nd sentence is true.
- C. 1-st sentence is true, 2-nd sentence is false.
- D. both sentences are true and there is a relation between them.
- E. both sentences are true and there is no relation between them.

Nr 17. Hybrid composite materials are characterised by lower compressive strength in comparison to microfilled composites but hybrid composites can be polished better than microfilled composites.

- A. the first statement is true and the second false.
- B. the first statement is false and the second true.
- C. both statements are true.
- D. both statements are false.
- E. both statements are true only for the physiological range of temperature.

Nr 18. Non-Hodgkin Lymphoma (NHL) can appear anywhere in the mouth, but the most common site is:

- A. the floor of the mouth.
- B. palatal-retromolar complex.
- C. the lateral border of the tongue.
- D. the lips.
- E. the dorsal surface of the tongue.

Nr 19. Which feature characterising dental materials **is not** important regarding endodontic sealants?

- A. good tissue tolerance.
- B. insolubility in contact with tissue fluids.
- C. x-ray contrast.
- D. good sealing ability.
- E. high compressive strength.

Nr 20. You are filling a deep carious cavity with possible microexposure of the pulp in the first upper incisor, Black's class I. Indicate the best restorative technique in this case:

- A. etching and the placement of a composite material.
- B. the placement of calcium hydroxide liner and glass-ionomer cement.
- C. the placement of glass-ionomer cement.
- D. the placement of calcium hydroxide liner and amalgam.
- E. the placement of zinc polycarboxylite cement and amalgam.

Nr 21. Which of the following cements is the most susceptible one to dissolution in water?

- A. zinc phosphate cement.
- B. calcium hydroxide setting cement.
- C. zinc polycarboxylate cement.
- D. glass-ionomer cement.
- E. zinc oxide eugenol cement.

Nr 22. Which of the materials is recommended for the treatment of caries using Atraumatic Restorative Technique (ART)?

- A. glass-ionomer cement.
- B. composite material.
- C. amalgam.
- D. compomer.
- E. unfilled resin.

Nr 23. Eugenol inhibits polymerisation of resins. Under which of the following permanent restorative materials, zinc oxide-eugenol cement **should not** be used directly as a liner?

- 1) composite materials;
- 2) glass-ionomer cements;
- 3) glass-ionomer cements modified by self-cured resin;
- 4) glass-ionomer cements modified by light-cured resin;
- 5) compomers.

The correct answer is:

- A.** 1,2,5. **B.** 1,4,5. **C.** 1,3,4,5. **D.** 1,2,4. **E.** 1,5.

Nr 24. Which of the following sentences concerning periodontium function **is false**?

- A.** it takes part in the cement formation.
B. it mediates in receiving sensory stimuli.
C. it supports a tooth in the socket and enables its physiological movements.
D. it is responsible for pulp defensive reactions.
E. it absorbs the forces of occlusion.

Nr 25. Fissure caries could be diagnosed by:

- 1) visual inspection;
- 2) the use of an explorer;
- 3) radiographic detection;
- 4) the use of acidic indicator;
- 5) assessing translucency.

The correct answer is:

- A.** 1,3,4. **B.** 2,4,5. **C.** 1,4,5. **D.** 2,3,4. **E.** 1,3,5.

Nr 26. Bite-wing x-rays are useful for detecting:

- A.** caries on occlusal surface. **D.** caries on lingual and facial surfaces.
B. caries on interproximal surfaces. **E.** A, B and C are correct.
C. recurrent caries.

Nr 27. Abrasion usually occurs because of:

- A.** improper brushing technique. **D.** gastro-intestinal disorder.
B. the consumption of sour food and drinks. **E.** physiological mastication.
C. bruxism.

Nr 28. When restoring class V cavities it is very difficult to keep the operating field dry. The best solution is to use rubber dam with special cervical retainer (a special clamp). When the clamp is unstable it has to be attached to adjacent teeth with:

- A.** low-fusing compound. **D.** a rubber cord.
B. dental floss. **E.** resin composite.
C. a wedge.

Nr 29. Indicate the **false** sentence describing treatment of recurrent caries:

- A. the dentist always has to consider repairing the existing restoration.
- B. the replacement of the existing restoration is always a better solution than repairing it.
- C. the presence of a slot deeper than 0.5 mm around the amalgam margins may indicate recurrent caries.
- D. amalgam restorations can be repaired with amalgam or with resin composite.
- E. in some cases apart from repairing the restoration, resurfacing can also be performed to improve esthetic effect.

Nr 30. Find the **incorrect** sentence concerning PRR:

- A. it is an counterpart of enameloplasty.
- B. it is recommended when a small pit or fissure is cavitated.
- C. it is preventive and healing procedure.
- D. it can be used in molars and premolars.
- E. the use of pit and fissure sealants is one of the stages of the procedure.

Nr 31. Indicate the starting location and the angles of penetration for the access cavity preparation in the right central maxillary incisor in a 23-year-old patient:

- A. The starting location for the access cavity – the center of the lingual surface. The angel of penetration for the preliminary outline form – perpendicular to the lingual surface. The angel of penetration for initial entry into the pulp chamber – parallel to the long axis of the root.
- B. The starting location for the access cavity – the center of the lingual surface. The angel of penetration for the preliminary outline form – perpendicular to the lingual surface. The angel of penetration for initial entry into the pulp chamber – perpendicular to the long axis of the root.
- C. The starting location for the access cavity – the lingual surface cusp tip. The angel of penetration for the preliminary outline form – parallel to the lingual surface. The angel of penetration for initial entry into the pulp chamber – perpendicular to the long axis of the root.
- D. The starting location for the access cavity – the center of the lingual surface. The angel of penetration for the preliminary outline form – parallel to the lingual surface. The angel of penetration for initial entry into the pulp chamber – parallel to the long axis of the root.
- E. The starting location for the access cavity – below the center of the lingual surface. The angel of penetration for the preliminary outline form – perpendicular to the lingual surface. The angel of penetration for initial entry into the pulp chamber – parallel to the long axis of the root.

Nr 32. Indicate the most effective pharmacological solution used against *Enterococcus faecalis* in root canal treatment.

- A. sodium hypochlorite.
- B. EDTA.
- C. citric acid.
- D. chlorhexidine.
- E. H₂O₂.

Nr 33. What kind of lesions may be seen on the radiograph in acute periapical periodontitis?

- A. slight widening of the periodontal ligament space.
- B. radiolucency with blunt edges.
- C. radiolucency with sharp edges.
- D. radiopacity in the periapical region.
- E. no changes are observed in such a case.

Nr 34. Which of the following materials may be used as an alternative for $\text{Ca}(\text{OH})_2$ in direct pulp capping?

- A. ZOE.
- B. MTA.
- C. antibiotic/corticosteroid paste.
- D. glass ionomer cement.
- E. EDTA.

Nr 35. What size should the master gutta-percha cone have to be used in the lateral compaction method of root canal obturation?

- A. consistent with the largest file inserted in the canal at the working length.
- B. always one size larger than the largest file used in the canal at the working length.
- C. always one size smaller than the largest file used in the canal at the working length.
- D. one size larger when the cone is loose in the root canal and extends beyond the prepared working length or one size smaller when the master cone fails to enter the prepared length.
- E. answers A and D are correct.

Nr 36. How deep should be introduced the first spreader used in the lateral compaction method of root canal obturation?

- A. the same as the working length.
- B. 1-2 mm shorter than the working length.
- C. 2-3 mm shorter than the working length.
- D. 3-5 mm shorter than the working length.
- E. none of the above answers is correct.

Nr 37. Choose the **false** sentence concerning hemisection:

- A. it is also known as premolarisation.
- B. its synonym is radisection.
- C. its purpose is the extraction of the root with part of a multirouted tooth crown.
- D. the procedure is performed in lower molar teeth.
- E. it is recommended in complications during endodontic treatment.

Nr 38. In which case antibiotic therapy **is not** necessary during endodontic treatment of necrotic teeth?

- A. as prophylaxis for medically compromised patients with endocarditis and congenital heart diseases.
- B. as prophylaxis for patients with prosthetic cardiac valves.
- C. in acute apical periodontitis with symptoms like periapical abscess, pain, high temperature and lymphadenopathy.
- D. in acute apical periodontitis when a drainage through the root canal is not possible.
- E. in healthy patients with acute apical periodontitis when a drainage through the root canal has been achieved.

Nr 39. The Obtura system used as one of root canal obturation methods is an example of:

- A. lateral compaction, obturation with master apical cones and accessory cones with the use of finger spreaders.
- B. ultrasonic compaction, a variation of lateral compaction with ultrasonic activation of the spreader.
- C. a method in which a warmed gutta-percha is injected into the canal walls with a little amount of sealer.
- D. a carrier-based system, the use of plastic central carrier coated with gutta-percha.
- E. a cold gutta-percha injection system.

Nr 40. Choose the indications for interpulpal anesthesia?

- A. when root canal treatment with conventional anesthesia and periodontal ligament injection is not adequate.
- B. in root canal treatment as an anesthesia "of choice" that allows to avoid conventional anesthesia.
- C. there are no special indications for interpulpal anesthesia.
- D. as an alternative for conventional anesthesia in patients with heart disease.
- E. none of the above.

Nr 41. During clinical examination cauliflower-like overgrowth was noticed growing out from a big carious lesion of tooth 36. The explorer was used to diagnose the pulp polyp. Percussion test and periapical x-ray didn't show any periapical changes. Choose the diagnosis:

- A. acute abscess.
- B. chronic apical abscess.
- C. irreversible pulpitis.
- D. reversible pulpitis.
- E. periodontal abscess.

Nr 42. Which of the following clinical situations can't be a possible reason for tooth discoloration?

- A. pulp necrosis.
- B. endemic fluorosis.
- C. reversible pulpitis.
- D. intrapulpal hemorrhage.
- E. the administration of tetracyclines during tooth development.

Nr 43. What is the proper outline shape of the access for a maxillary first molar?

- A. round.
- B. triangular.
- C. oval.
- D. square.
- E. none of the above.

Nr 44. Read carefully the text below which contains true and false information referring to the procedure called „night-guard vital bleaching“. Choose the answer that includes **false** information about the procedure:

- 1) the use of carbamide peroxide (10% – 15%);
- 2) a method of intensive bleaching;
- 3) a method for vital teeth;
- 4) a recommended method for non vital teeth;
- 5) trays are necessary;
- 6) the use of laser is recommended.

The correct answer is:

- A. 1,2,3.
- B. 2,4,6.
- C. 2,3,5.
- D. 1,2,4.
- E. 3,5,6.

Nr 45. Read carefully the text below and choose one sentence which contains false information referring to fluoride exposure:

- A. fluoride increases the resistance of tooth structure to demineralization.
- B. excessive fluoride exposure resulting from its presence in drinking water and other sources at the time of teeth formation can result in a type of intrinsic stain called – fluorosis.
- C. inhibits sugar transport into the bacterial cell.
- D. inhibits the precipitation of calcium and phosphate ions in saliva into tooth structure to form fluorapatite.
- E. has influence on the remineralization of incipient, non-cavitated carious lesions.

Nr 46. Read the following statements which contain true or false information concerning tetracycline discolorations:

- 1) tetracycline stains can be removed by routine prophylactic procedures;
- 2) tetracycline can cause a localized type of extrinsic discoloration;
- 3) the severity of the staining depends on the dose, duration of exposure to the drug and the type of tetracycline;
- 4) staining from tetracycline type drugs most frequently is caused by ingestion of the drug concomitant with the development of the permanent teeth;
- 5) different types of tetracycline induce different types of discoloration ranging from white to dark blue-gray.

Choose the answer which includes only **false** information:

- A. 1,2,5. B. 2,4,5. C. 1,2,3. D. 2,3,5. E. 1,3,4.

Nr 47. The **contraindication(s)** for local infiltration anesthesia is(are):

- 1) an uncooperative child;
- 2) incomplete root formation;
- 3) Down syndrome;
- 4) acute infection;
- 5) haemophilia.

The correct answer is:

- A. 2,3,4,5. B. 1,2,3. C. 1,4,5. D. 2,4,5. E. only 5.

Nr 48. Natal or neonatal teeth:

- 1) are supernumerary teeth that are present at birth or erupt within the first month of life;
- 2) might be the cause of ulceration of the tongue;
- 3) should be extracted immediately after their eruption;
- 4) the mandibular central incisor is the most common natal or neonatal tooth;
- 5) they may be observed in association with Ellis van Creveld or Hallermann-Streff syndromes.

The correct answer is:

- A. 1,2,3,4. B. 1,2,3. C. 2,3,4. D. 2,4,5. E. 3,4,5.

Nr 49. A seven-year-old girl comes to the dental surgery after a dental trauma. She was hit with a ball in the school yard one hour earlier. She has her central upper, left, permanent incisor fractured with an exposure of pulp, the diameter of the exposure is less than 2 mm, no bleeding. The radiographic examination in accordance with the age norms, no additional problems. In that case most advisable treatment is:

- A. temporary dressing and observation.
- B. pulp capping and aesthetic restoration.
- C. complete pulpotomy and aesthetic restoration.
- D. pulpectomy and root canal therapy.
- E. extraction and orthodontic treatment.

Nr 50. Which of the following radiographs will be the first choice view for caries diagnosis?

- A. bitewings.
- B. periapical.
- C. orthopantomogram.
- D. bimaxillars.
- E. lateral skull.

Nr 51. Find the correct statements:

- 1) a supply of high levels of fluoride is the most effective method in preventing dental caries;
- 2) the process of demineralization is the first and irreversible stage of caries development;
- 3) in light of contemporary studies, a topical action of fluoride is more effective than a systemic one;
- 4) the efficacy of 250 ppm fluoride toothpaste is comparable to that of a 1000 ppm;
- 5) the fluoride supplement doses should be calculated according to the age and level of fluoride in drinking water.

The correct answer is:

- A. 1,2,3.
- B. 1,3,5.
- C. 2,4.
- D. 1,5.
- E. 3,5.

Nr 52. An antibiotic cover during extraction should be used in the case of a child with:

- 1) anaemia;
- 2) haemophilia;
- 3) leukaemia;
- 4) congenital cardiac malformation;
- 5) asthma.

The correct answer is:

- A. all of the above.
- B. 1,2,3,4.
- C. 1,3,4.
- D. 3,4.
- E. only 3.

Nr 53. "Thin sparse hair, dry skin, absence of sweating, heat intolerance, multiple missing teeth, changes in tooth form (peg-shaped teeth)" might be observed in:

- A. ectodermal dysplasia.
- B. Down syndrome.
- C. cleidocranial dysplasia.
- D. rubella embryopathy.
- E. congenital syphilis.

Nr 54. Pulpotomy in primary tooth is recommended in the case of:

- A. the presence of fistula.
- B. a history of spontaneous pain.
- C. inflammation of radicular pulp.
- D. pathological resorption.
- E. exposure of pulp.

Nr 55. Oral hygiene index by Green Vermillion (OHI):

- A. is used for caries risk assessment.
- B. requires disclosing prior to the evaluation of the amount of plaque.
- C. is evaluated on buccal sides of: first permanent molars, upper right and lower left central incisors.
- D. score 2 means: debris covers up to 1/3 of the exposed tooth surface.
- E. is not used in primary dentition.

Nr 56. Find the correct statements regarding early childhood caries:

- 1) most often is associated with a consumption of fruit-based drinks from a bottle;
- 2) may be related to a prolonged on-demand breast feeding;
- 3) usually starts with lower incisors which are most severely affected;
- 4) is a term for an initial stage of caries in very young children;
- 5) enamel defects may play a role in its development.

The correct answer is:

- A. all of above. B. 1,2,4,5. C. 1,2,5. D. 1,5. E. 3,5.

Nr 57. The health care professional must remember that even mere suspicions of child abuse or neglect must be reported and it is in the responsibility of child protective agencies and law enforcement officials to investigate suspicions and determinate if intervention is necessary.

- A. both parts of the sentence are true and there is a cause and effect relation between them.
- B. both parts of sentence are true and there is no cause and effect relation between them.
- C. the first part is true but the second is false.
- D. the first part is false but the second is true.
- E. both parts of the sentence are false.

Nr 58. “The epithelium continues to invaginate and deepen; during this stage there is a differentiation of the cells of the dental papilla; histological differentiation marks the end of the proliferative stage as the cells lose their capacity to multiply.” The above features describe:

- A. papilla stage.
- B. bud stage.
- C. cap stage.
- D. bell stage.
- E. apposition stage.

Nr 59. The radiographs commonly used by dentists include the following:

- 1) bite-wing;
- 2) periapical;
- 3) occlusal;
- 4) panoramic.

The correct answer is:

- A. only 1. B. 1,2. C. 2,4. D. 1,2,4. E. all of the above.

Nr 60. There are different sizes of film used in this technique. The anterior edge of the film packet is located as far anteriorly as possible in the region of the canine so that the distal aspect of the canine will be recorded. The central ray enters through the occlusal plane at a point below the pupil of the eye. This description refers to:

- A. Anterior Maxillary Occlusal Technique.
- B. bite-wing technique.
- C. periapical technique.
- D. bisecting angle technique.
- E. paralleling technique.

Nr 61. Choose developmental anomalies of the teeth:

- A. odontoma.
- B. fusion of the teeth.
- C. dentin dysplasia.
- D. A, B are correct.
- E. A, B, C are correct.

Nr 62. Early exfoliation of the teeth can be caused by:

- A. hypophosphatasia.
- B. hyperphosphatasia.
- C. cherubism.
- D. Down syndrome.
- E. A, C are correct.

Nr 63. In older children the reduction of the frenulum should be recommended only if unfavorable anatomic conditions or speech problems occur because in ankyloglossia a short lingual frenulum extending from the tip of the tongue to the floor of the mouth and onto the lingual gingival tissue limits movements of the tongue.

- A. both parts of the sentence are true and there is a cause and effect relation between them.
- B. both parts of sentence are true and there is no cause and effect relation between them.
- C. the first part is true but the second is false.
- D. the first part is false but the second is true.
- E. both parts of the sentence are false.

Nr 64. The prevalence and extent of gingivitis in children with Down syndrome (DS) are significantly higher than in normal children because of abnormalities in the systemic defenses that are responsible for the early onset of disease in children with DS.

- A. both parts of the sentence are true and there is a cause and effect relation between them.
- B. both parts of sentence are true and there is no cause and effect relation between them.
- C. the first part is true but the second is false.
- D. the first part is false but the second is true.
- E. both parts of the sentence are false

Nr 65. A typical symptom of cleidocranial dysplasia which can be recognized in the oral cavity is:

- A. anodontia.
- B. enamel hypoplasia.
- C. delayed development of the dentition manifested by persistent primary teeth.
- D. lip cleft.
- E. severe Candida infection.

Nr 66. An instrument designed to facilitate the detection of dental caries, DIAGNOdent, uses:

- A. ultraviolet.
- B. infrared.
- C. ultrasounds.
- D. blow up (zoom).
- E. laser light.

Nr 67. The combinations of fluoride therapies can result in high concentration of fluoride in the human body and this in turn can lead to:

- A. nausea.
- B. vomiting.
- C. dental fluorosis.
- D. death.
- E. all of the above.

Nr 68. "The ends of the toothbrush bristles are placed in contact with the enamel of the teeth and the gingiva, with the bristles pointed at about 45-degree angle toward the plane of occlusion. A lateral and downward pressure is then placed on the brush, and the brush is vibrated gently back and forth a millimeter or so." This description relates to:

- A. roll method.
- B. Charters method.
- C. horizontal scrubbing method.
- D. modified Stillman method.
- E. circle method.

Nr 69. Which sentences describe the periodontal ligament anesthesia?

- A. it provides reliable pain control rapidly and easily.
- B. it provides pulpal anesthesia for 10 to 20 minutes.
- C. it requires very small quantities of anesthetic solution.
- D. it requires aspiration before injection.
- E. A, C are correct.

Nr 70. Because of its biocompatibility, fluoride release, and potential for adherence to the calcium in the tooth, glass ionomer cement is used only as a temporary restorative material.

- A. both parts of the sentence are true and there is a cause and effect relation between them.
- B. both parts of sentence are true and there is no cause and effect relation between them.
- C. the first part is true but the second is false.
- D. the first part is false but the second is true.
- E. both parts of the sentence are false.

Nr 71. Choose the correct sequence of actions for sealing technique:

- A. cleaning, etching, isolation, washing, application of sealant, reevaluation, check of occlusal interferences.
- B. washing, etching, isolation, cleaning, reevaluation, application of sealant, check of occlusal interferences.
- C. etching, isolation, washing, application of sealant, cleaning, reevaluation, check of occlusal interferences.
- D. cleaning, isolation, etching, washing, application of sealant, check of occlusal interferences, reevaluation.
- E. washing, cleaning, isolation, etching, application of sealant, reevaluation, check of occlusal interferences.

Nr 72. According to American Academy of Pediatric Dentistry Guideline on Pediatric Restorative Dentistry the treatment plan shall take into consideration:

- A. the developmental status of the dentition.
- B. a caries-risk assessment based upon the caries history of the parents.
- C. the patient`s oral hygiene.
- D. A, B are correct.
- E. A, C are correct.

Nr 73. Several brands of stainless steel crowns with esthetic facing veneered to the labial surfaces are available to restore primary anterior teeth but such crowns are not available for direct adaptation to the prepared teeth and must be prepared by dental technician.

- A. both parts of the sentence are true and there is a cause and effect relation between them.
- B. both parts of sentence are true and there is no cause and effect relation between them.
- C. the first part is true but the second is false.
- D. the first part is false but the second is true.
- E. both parts of the sentence are false.

Nr 74. Laboratory studies and clinical evidence do not justify the routine use of indirect pulp treatment because teeth with deep caries that are free of symptoms of painful pulpitis are rarely treated according to this procedure.

- A. both parts of the sentence are true and there is a cause and effect relation between them.
- B. both parts of sentence are true and there is no cause and effect relation between them.
- C. the first part is true but the second is false.
- D. the first part is false but the second is true.
- E. both parts of the sentence are false.

Nr 75. The procedures known as „vital pulp therapy” include the following:

- A. direct pulp capping.
- B. pulpotomy.
- C. partial pulpectomy.
- D. A,B are correct.
- E. all the answers are correct.

Nr 76. *Candida albicans* is an uncommon inhabitant of the oral cavity but may appear and multiply rapidly and cause pathogenic state only when there is no teeth in the oral cavity and the patient starts using prosthetic appliances.

- A. both parts of the sentence are true and there is a cause and effect relation between them.
- B. both parts of sentence are true and there is no cause and effect relation between them.
- C. the first part is true but the second is false.
- D. the first part is false but the second is true.
- E. both parts of the sentence are false.

Nr 77. Choose the correct answer describing phenytoin-induced gingival overgrowth (PIGO):

- A. appears from 2 to 3 months after the initiation of phenytoin therapy.
- B. the buccal and anterior segments are more affected than the lingual and posterior segments.
- C. at first, the gingiva appears red and soft and can bleed easily on probing.
- D. with time the gingiva form deep gingival pockets with damaged epithelial attachments.
- E. in some cases, the entire occlusal surface of the teeth becomes covered with gingiva.

Nr 78. Frenectomy involves complete excision of the frenulum and its periosteal attachment because the need for frenectomy should be based only on the ability to maintain gingival health.

- A. both parts of the sentence are true and there is a cause and effect relation between them.
- B. both parts of sentence are true and there is no cause and effect relation between them.
- C. the first part is true but the second is false.
- D. the first part is false but the second is true.
- E. both parts of the sentence are false.

Nr 79. The reaction of the tooth to trauma **does not** include:

- A. pulpal hyperemia.
- B. internal hemorrhage.
- C. calcification of the dental pulp.
- D. an increased risk of dental caries.
- E. internal resorption.

Nr 80. Failure in formation of a calcified bridge cross the vital pulp has often been related to:

- A. age of the patient.
- B. degree of surgical trauma.
- C. sealing pressure.
- D. presence of microorganisms with subsequent infection.
- E. all answers are correct.

Nr 81. Choose typical oral manifestations of HIV infection:

- A. fungal infections.
- B. viral infections.
- C. bacterial infections.
- D. neoplasms.
- E. all of the above are correct.

Nr 82. In the case of an oroantral connection, the patient is instructed to take the nasal precautions (to avoid increasing pressure in the maxillary sinus) for:

- A. 2 to 3 days.
- B. 4 to 5 days.
- C. 7 to 10 days.
- D. 10 to 14 days.
- E. more than 2 weeks.

Nr 83. The major duct of the submandibular gland is known as:

- A. Bartholin's duct.
- B. Wharton's duct.
- C. plica submandibularis.
- D. Rivinus duct.
- E. the correct answers are B and C.

Nr 84. In a mandibular fracture in an adult, the maxillomandibular fixation is used in most cases for:

- A. 3 to 4 weeks.
- B. 4 to 6 weeks.
- C. 6 to 8 weeks.
- D. 8 to 10 weeks.
- E. none of the answer is correct.

Nr 85. After tooth extraction, the patient is asked to bite on a folded gauze pad for:

- A. 3 to 4 minutes.
- B. 5 minutes.
- C. 10 to 15 minutes.
- D. 30 minutes.
- E. 1 hour.

Nr 86. Pell and Gregory class B impaction is when:

- A. the occlusal surface of the impacted tooth is level or nearly level with the occlusal plane of the second molar.
- B. the occlusal surface of the impacted tooth is between the occlusal plane and the cervical line of the second molar.
- C. the occlusal surface of the impacted tooth is below the cervical line of the second molar.
- D. the impacted third molar is completely embedded in ramus of the mandible.
- E. approximately half of the impacted tooth is covered by anterior portion of the ramus of the mandible.

Nr 87. Which of the following is **incorrect**? The submandibular ganglion:

- A. is connected with the lingual nerve and is located over the submandibular gland.
- B. is located in the distal margin of the mylohyoid muscle.
- C. is located at the crossing of the lingual nerve and submandibular gland duct.
- D. leads sensitive, sympathetic and parasympathetic nerve fibers.
- E. leads sensitive and motor fibers to the tongue muscles.

Nr 88. Which of the following is used for extracting the third molar when the molars on the same side are present:

- A. Liston forceps.
- B. Lecluse elevator.
- C. straight elevator.
- D. Kohler forceps.
- E. Pean forceps.

Nr 96. A radiographic picture of a “falling drop” may appear in:

- 1) frontal-orbital-nasal fracture;
- 2) cranial-orbital fracture;
- 3) facial upper mass displacement;
- 4) isolated orbital floor fracture;
- 5) zygomatic-maxillo-orbital fracture.

The correct answer is:

- A.** 1,3,4,5. **B.** 1,2,4,5. **C.** 4,5. **D.** only 4. **E.** all of the above.

Nr 97. A case of upper lip furuncle is accompanied by meningeal signs, pain in the orbit radiating to the skull, immobilization of the eye ball and dropping of the eye lid, protrusion of the eye ball, a decrease in visual acuity, eye lids oedema, optic disc oedema and venous stasis found on the examination of the eye fundus, septic fever, chills, and bradycardia. These symptoms and signs indicate:

- A.** inflammation of the optic nerve. **D.** thrombus of the cavernous sinus.
B. subperiosteal abscess of the orbit. **E.** facial thrombophlebitis.
C. orbital phlegmon.

Nr 98. Which of the following cysts has a characteristic X-ray picture: sharply demarcated, pear-shaped opacity between incisor and canine with no periodontal space connection, and wide space between the roots?

- A.** globulo-maxillary cyst. **D.** nasopalatine duct cyst.
B. nasolabial cyst. **E.** primordial cyst.
C. gingival cyst.

Nr 99. Too deep injection of anaesthetics into the mandibular foramen can lead to:

- A.** injury of alveolar inferior artery. **D.** anesthesia of the trunk of III branch of the trigeminal
B. injury of pterygoid plexus. nerve.
C. injury of maxillary artery. **E.** anesthesia of peripheral branches of the facial nerve.

Nr 100. The absolute contradiction to perform general anaesthesia in dentistry **is not**:

- 1) diabetes mellitus;
- 2) upper respiratory duct infection;
- 3) blood coagulation diseases;
- 4) multiple teeth extraction in children;
- 5) mental and/or psychical disability.

The correct answer is:

- A.** 1,2,4. **B.** 1,2,3. **C.** 1,4,5. **D.** all of the above. **E.** none of the above.

**Now, take the other answer ticket in order to mark the answers
to questions 101 - 200.**

Nr 101. Pain free conservative dental treatment of an upper premolar needs an injection of anaesthetics into:

- A.** roof of the antrum of oral cavity. **D.** sub-orbital foramen.
B. palate. **E.** sub-orbital foramen and palate.
C. maxillary tumor.

Nr 102. 24 hrs after 48 tooth extraction the patient has discomfort, higher body temperature, face pain at the extraction site, difficulty in swallowing, unclear speech. On examination: submandibular and temporal areas swelling, intraoral bulge on the right side of the throat. Which space abscess do you suspect?

- A. submadibular space.
- B. subtemporal space.
- C. pterygo-palatal space.
- D. pterygo-mandibular space.
- E. pharyngeal space.

Nr 103. After local anaesthesia the patient has immediate complications: subjective lack of air, pale skin, burning sensation in the chest, substernal pain radiating to the neck and arm, cold sweat, tachycardia, weakness, arterial hypertension. What diagnosis listed below are you thinking about?

- A. anesthetics overdose.
- B. faint.
- C. hyperventilation.
- D. heart attack.
- E. attack of angina pectoris.

Nr 104. A patient comes to the dental office with slight pain remission of 46 tooth, which X-ray shows abnormal, translucent (soft) bone structure between the roots, crown perforation. The medial root was endodontically treated before, the apex unfinished and no possibility for canal revision. Which surgical procedure should be applied?

- A. apicoectomy.
- B. premolarisation of the tooth.
- C. root amputation with hemisection of the crown.
- D. root amputation without crown hemisection.
- E. hemisection and half a tooth extraction.

Nr 105. Heart infarct should be differentiated from:

- 1) aortic aneurysm;
- 2) pericarditis;
- 3) embolus of the thoracic aorta;
- 4) mediastinitis;
- 5) duodenal ulcer.

The correct answer is:

- A. 1,3. B. 1,2,3. C. 2,4. D. all of them are correct. E. other combination.

Nr 106. Erysipelas is disease:

- 1) with streptococcus infection etiology;
- 2) concerns skin and under-skin tissues, mostly the face and leg;
- 3) very often develops in newborns during the winter;
- 4) needs isolation of infected patients;
- 5) is manifested by high temperature, shivers and para-wound inflammation.

The correct answer is:

- A. 1,3. B. 1,2,3. C. 2,4. D. all of them are correct. E. other combination.

Nr 107. Which of the following bacterial species belong to the red complex?

- 1) *Aggregatibacter actinomycetemcomitans*;
- 2) *Micromonas micros*;
- 3) *Treponema forsythia*;
- 4) *Porphyromonas gingivalis*.

The correct answer is:

- A. all of the above. B. 3,4. C. 2,3,4. D. only 4. E. 1,4.

Nr 108. Which of the following diseases **is not** one of the gingival inflammations modulated by systemic factors?

- A. pregnancy gingivitis.
- B. pubertal gingivitis.
- C. menopausal gingivitis.
- D. menstrual cycle gingivitis.
- E. tumor gravidarum.

Nr 109. One of the features of the aggressive periodontitis is rapid progress of periodontal attachment loss. It equals at least:

- A. 3 mms in 4 months.
- B. 2 mms in 3 months.
- C. 3 mms in 2 months.
- D. 4 mms in 3 months.
- E. 1 mms in 2 months.

Nr 110. The secondary feature of aggressive periodontitis is:

- A. familial occurrence of the disease.
- B. lack of systemic diseases.
- C. periodontal tissues destruction higher than expected from the amount of dental deposits.
- D. self-remission.
- E. none of the above.

Nr 111. Indicate an example of osteoinductive material:

- A. calcium triphosphate.
- B. freeze-dried bone.
- C. PTFE membrane.
- D. calcium hydroxide.
- E. autogenous bone.

Nr 112. Which of the following curettes is not suitable for preparing molar teeth?

- A. Gracey 9-10.
- B. Gracey 5-6.
- C. Gracey 13-14.
- D. Gracey 11-12.
- E. Gracey 7-8.

Nr 113. Desquamative gingivitis **doesn't** accompany:

- A. Lichen planus.
- B. Pemphigoid.
- C. CUS.
- D. Pemphigus.
- E. Erythema multiforme.

Nr 114. Point the true sentence regarding actinic cheilitis:

- A. involves lower lip more frequently.
- B. is a precancerous state.
- C. treatment may involve retinol application.
- D. treatment may involve surgical intervention in the lip.
- E. all the sentences are true.

Nr 115. Which of the following viruses is responsible for neoplastic transformation of leukoplakia:

- A. EBV.
- B. CMV.
- C. HPV.
- D. HIV.
- E. all of the above.

Nr 116. Which of the following diseases is characterized by high risk (over 25%) of malignant transformation?

- A. Bowen's disease.
- B. erythroleukoplakia.
- C. erosive lichen planus.
- D. the correct answer is A and B.
- E. the correct answer is A,B and C.

Nr 117. Which of the following clinical features of leukoplakia may most likely point to dysplasia?

- A. mucosal discoloration.
- B. melanoplakia.
- C. paleness of epithelium.
- D. a linear lesion on mucous membrane of the cheeks, in the biting line.
- E. fissures and erosions in the area of the white plaque.

Nr 118. Which of the following **is not** regarded as a precancerous state?

- A. ulcers of the oral mucous membrane.
- B. Bowen's disease.
- C. Queyrat's erythroplasia.
- D. leukoplakia.
- E. recurrent aphthous stomatitis.

Nr 119. Which values of API allow to conclude that oral hygiene is fairly good?

- A. >40%.
- B. <40%.
- C. 39%-25%.
- D. <25%.
- E. <50%.

Nr 120. The characteristic form of mycosis in a patient with terminal stage of AIDS is:

- A. angular cheilitis.
- B. acute pseudomembranous mycosis.
- C. acute atrophic mycosis.
- D. chronic pseudomembranous mycosis.
- E. chronic atrophic mycosis.

Nr 121. The Hotz oral screen should be used in an eight-year-old child with the following malocclusions:

- A. mesioocclusion with mandibular backward rotation.
- B. class II division 1 malocclusion.
- C. partial deep bite.
- D. anterior crossbite.
- E. class II division 2 malocclusion.

Nr 122. Primary crowding of teeth:

- A. can be stated in the first phase of physiological occlusal development only.
- B. affects mandibular incisors and occurs after the pubertal spurt.
- C. occurs in overbite and manifests itself as lack of space for lateral permanent mandibular incisors.
- D. is determined by disproportionally sized teeth and jaws.
- E. occurs as a result of shortening of a dental arch after a premature loss of teeth.

Nr 123. In orthodontics, ontogenetic biological maturity is assessed on the basis of:

- 1) the number of erupted permanent teeth;
- 2) the stage of the mineralisation of crowns and roots of permanent teeth;
- 3) the stage of resorption of permanent teeth roots;
- 4) morphology of cervical vertebrae;
- 5) the length of the anterior cranial fossa.

The correct answer is:

- A.** 1,2. **B.** 2,4. **C.** 1,2,5. **D.** 3,4,5. **E.** 1,2,4.

Nr 124. Orthodontic tooth extraction is justified in the case of:

- A.** paramolars.
- B.** a vestibular position of permanent canines.
- C.** the first maxillary premolars in case of total mesiocclusion.
- D.** the first permanent molars in case of *occlusio profunda totalis*.
- E.** permanent mandibular incisors in case of their crowding in mixed dentition.

Nr 125. Inclined plane should be used in:

- A.** distocclusion with the retrusion of maxillary incisors.
- B.** overbite without dental crowding.
- C.** proclination.
- D.** total crossbite with maxillary incisors crowding.
- E.** *positio mandibulae anterior functionalis* without dental crowding.

Nr 126. In the case of a 5-year-old child with *positio mandibulae posterior functionalis* and the retrusion of maxillary incisors, the following appliances should be used:

- A.** Kraus vestibular screen.
- B.** Hawley bite plane.
- C.** palatal plate with anterior inclined plane.
- D.** an inclined plane.
- E.** a palatal plate with lateral bite blocks.

Nr 127. In the case of a nine-year-old child with *occlusio aperta totalis*, the following appliances should be used:

- A.** a palatal plate with an anterior simple bite block.
- B.** Angle's appliance.
- C.** Lehman's appliance.
- D.** upper Schwarz plate with lateral bite blocks and a lingual screen for the tongue.
- E.** Kraus partial vestibular screen.

Nr 128. Indicate the true sentence:

- A.** the frontonasal prominence forms up in the 8th week of the embryonic life from the first branchial arch.
- B.** the stomodeum appears as a result of the breach in the pharyngeal membrane at the bottom of the third pharyngeal pouch.
- C.** masseter muscles develop from the mesenchyme of the first branchial arch.
- D.** mandibular processes develop from the second branchial arch.
- E.** the dental primary lamina forms up in the third prenatal month.

Nr 129. It is not an orthodontic appliance:

- A. lip-bumper.
- B. Headgear.
- C. Delaire face mask.
- D. Bohm plate.
- E. Quad-Helix.

Nr 130. Skeletal class II can be diagnosed when:

- A. SNA angle is 78° .
- B. SNB angle is 76° .
- C. angle B between the maxillary and the mandibular base planes is 35° .
- D. ANB angle is (-1°) .
- E. Wits (+7mm).

Nr 131. The source of force in removable orthodontic appliances are:

- A. Adams clasps.
- B. Bertoni screws.
- C. Goshgarian arch.
- D. edgewise brackets.
- E. T-loop.

Nr 132. Complete the sentence: A cephalometric radiogram...

- A. shows the facial skeleton in three dimensions.
- B. is taken with the head fixed in the gnathostat.
- C. is an examination procedure which allows to diagnose malocclusions according to the standards of the Polish orthodontic diagnostics.
- D. may be used for an assessment of biological maturity of the patient.
- E. is a tomogram.

Nr 133. Physiological retrogenia is diagnosed as:

- A. retraction of the mandible during natural feeding.
- B. domination of the maxilla over the mandible in the embryonic period.
- C. inclination of the maxillary incisors in infants fed with a bottle.
- D. retraction of the mandible in the prenatal period and during the toothlessness.
- E. an inborn type of the face structure that features backward mandibular rotation.

Nr 134. Indicate the common features of *distocclusio totalis* and *positio mandibulae posterior functionalis* according to the Polish orthodontic diagnosis:

- 1) canine class I;
- 2) Angle class II;
- 3) increased overjet;
- 4) positive functional test in forward movement of the mandible;
- 5) retraction of the mentum in the profile.

The correct answer is:

- A. 1,2,3.
- B. 2,3,4.
- C. 1,4.
- D. 4,5.
- E. 2,3.

Nr 135. Features of *mesioocclusio partialis* include:

- A. deep lip-chin groove.
- B. retraction of the upper lip.
- C. protruded chin.
- D. protruded lower lip.
- E. shortened philtrum.

Nr 136. Choose the correct set of cleft terminology:

- 1) unilateral cleft lip – complete unilateral cleft of the primary palate;
- 2) bilateral cleft lip and the alveolar process – partial bilateral cleft of the primary and secondary palates;
- 3) unilateral cleft lip, alveolar process, soft and hard palate – complete unilateral cleft of the primary and secondary palate;
- 4) transverse facial cleft – *macrostomia*;
- 5) cleft palate – submucous cleft.

The correct answer is:

- A.** 1,3. **B.** 2,4. **C.** 3,5. **D.** 2,5. **E.** 3,4.

Nr 137. According to Andrews, the key to the correct occlusion is:

- 1) mutual anterior-posterior position of the molars;
- 2) position of the canine teeth in relation to the Simon's line;
- 3) relay position of permanent mandibular incisors;
- 4) width of the tooth crowns;
- 5) inclination of the tooth crown along the alveolar arch.

The correct answer is:

- A.** 2,4. **B.** 1,5. **C.** 1,3. **D.** 2,5. **E.** 4,5.

Nr 138. Choose a tooth anomaly and a malocclusion which are deviations from the medial plane:

- | | |
|-----------------------------|---|
| 1) mesioocclusio partialis; | 4) overbite; |
| 2) secondary crowding; | 5) <i>positio mandibulae lateralis functionalis</i> . |
| 3) diastema; | |

The correct answer is:

- A.** 1,3. **B.** 3,4. **C.** 3,5. **D.** 2,4. **E.** 1,2.

Nr 139. In the case of an infant with the mandibular hypoplasia, retraction of the tongue, the secondary palate cleft and a weak sucking reflex, the diagnosis should be:

- | | |
|---------------------------------------|----------------------------------|
| A. ectodermal dysplasia. | D. Pierre Robin syndrome. |
| B. mandibulofacial dysostosis. | E. Apert syndrome. |
| C. Down syndrome. | |

Nr 140. Distoinclination means:

- | | |
|---|--|
| A. outward rotation of the tooth. | D. vestibular inclination of a tooth crown. |
| B. posterior inclination of a tooth crown. | E. palatal displacement of a tooth. |
| C. retention of a supernumerary tooth. | |

Nr 141. The highest periodontium loading of abutment teeth occurs in:

- A.** intracronal attachments in the case of bounded edentulous area.
- B.** intracronal attachments in the case of free ended edentulous area.
- C.** extracronal attachments in the case of free ended edentulous area.
- D.** extracronal attachments in the case of bounded edentulous area.
- E.** traditionally casted reciprocal clasps in the case of free ended edentulous area.

Nr 142. The mutual static and dynamic contact of the surfaces of antagonist teeth is called:

- A. articulation.
- B. central occlusion.
- C. occlusion.
- D. disclusion.
- E. reference position.

Nr 143. The risk of plaque accumulation and marginal periodontium damage is the lowest in the case of full:

- A. non-precious metal crowns veneered with acrylic resin.
- B. non-precious metal crowns veneered with porcelain.
- C. non-precious metal crowns veneered with composite resin.
- D. precious metal crowns veneered with acrylic resin.
- E. precious metal crowns veneered with composite resin.

Nr 144. The preparation of the shoulder of abutment tooth in the gingival area is aimed at:

- A. improving the aesthetics of the crown.
- B. facilitating the making of a thin-wall prosthetic crown.
- C. allowing a smooth contact of the crown with the walls of the prepared abutment tooth.
- D. improving the crown shape.
- E. facilitating the obtaining of an impression.

Nr 145. Which factors have the greatest influence on the long-term retention of the crown in the oral cavity?

- A. the luting material used for holding prosthetic crowns in place.
- B. the material of the crown.
- C. the length of the abutment tooth and the angle of prepared walls relative to the length of the tooth axis.
- D. the impression method.
- E. the shape of the abutment tooth articulation surface.

Nr 146. What kind of raw material is used to make refractory casts?

- A. acrylic resin.
- B. cast plaster.
- C. hard plaster.
- D. high temperature resistant material.
- E. wax.

Nr 147. Which sentences are characteristic of teeth arranging in complete dentures according to Gysi's method?

- 1) it is articulating method;
- 2) upper lateral teeth are arranged according to the curve of Spee;
- 3) anatomical shaped teeth are arranged;
- 4) cusplless teeth are arranged;
- 5) spherical surface is necessary for teeth to be set up;
- 6) the method needs applying individual articulators.

The correct answer is:

- A. 1,2,3.
- B. 1,2,3,5.
- C. 1,2,3,6.
- D. 1,2,4,5.
- E. 1,2,4,6.

Nr 148. Unilaterally balanced occlusion means:

- A.** simultaneous contacts of all teeth during occlusal movements.
- B.** the contact of all teeth on the working side, while the balancing side is not in contact.
- C.** a lack of any contacts on the working side, and only single contacts in the posterior region on the balancing side.
- D.** the contact on canines and anterior teeth during occlusal movements with the disclusion of lateral teeth.
- E.** the group contact of the teeth on the working side and a lack of contact of the teeth on the non-working side in lateral excursions.

Nr 149. The rest position of the mandible is:

- 1) non-occlusal static state of the mandible, irrespective of the presence of teeth, maintained due to physiological tension of the adductor and abductor muscles, protruding and retruding the mandible;
- 2) the most retruded physiologic relation of the mandible to the maxillae to and from which an individual can make lateral movements;
- 3) the mandibular position in which adductors, abductors, and the muscles protruding and retruding the mandible balance the mandible weight, and the freeway space occurs between the occlusal surfaces of the upper and lower teeth;
- 4) the habitual postural jaw relation when the patient is resting comfortably in an upright position and the condyles are in a neutral, unstrained position in the glenoid fossae;
- 5) the position occurring as a result of bilateral uniform and minimal contraction of the adductors and the mandible retruding muscles;
- 6) the relation between the mandible and the maxilla in which the condyles are into their anterior uppermost position.

The correct answer is:

- A.** 1,2,3. **B.** 1,3,4. **C.** 1,4,6. **D.** 2,4,5. **E.** all of the above.

Nr 150. The aim of application of the face-bow during fabrication of prosthodontic appliances is to record:

- A.** the vertical dimension of occlusion.
- B.** a vertical dimension of the lower part of the face and then transfer these data to the articulator.
- C.** the spatial relationship of the maxillary arch to the reference point of the hinge axis of the temporomandibular joints and then transfer these data to the articulator.
- D.** the relationship of Camper's plane to the reference point of the hinge axis of the temporomandibular joints and then transfer these data to the articulator.
- E.** the relationship of Frankfurt plane to the reference point of the hinge axis of the temporomandibular joints and then transfer these data to the articulator.

Nr 151. The occlusal vertical dimension in dentate patients is defined as an interocclusal distance measured in:

- A. midline in the central relation position.
- B. midline in the central occlusion.
- C. the area of the first premolar in the central relation position.
- D. the area of the second premolar in the central relation position.
- E. the area of the first premolar in the central occlusion.

Nr 152. A 12-year-old patient presented for prosthodontic treatment of the damaged tooth 16. According to the rule of minimal preparation in adolescents it is advisable to prepare the crown with:

- 1) supragingival margin;
- 2) epigingival margin;
- 3) subgingival margin;
- 4) edge margin;
- 5) chamfer margin.

The correct answer is:

- A. all of the above.
- B. 1,2,3,4.
- C. 1,2,4,5.
- D. 2,3,4,5.
- E. 3,4,5.

Nr 153. In treatment of *stomatitis prothetica* it is recommended:

- A. to apply 3-4 times per day Nystatin Oral Suspension 100,000 units/mL on mucosal surface of the denture.
- B. to apply 3-4 times per day Nystatin Oral Suspension 3-4 mln units/mL on mucosal surface of the denture.
- C. to rinse mouth 3-4 times per day with Nystatin Oral Suspension 3-4 mln units/mL.
- D. to rinse mouth 3-4 times per day with Nystatin Oral Suspension 100,000 units/mL.
- E. to soak the denture overnight in Nystatin Oral Suspension 3-4 mln units/mL.

Nr 154. The aim of prosthetic treatment of mixed (congenital and acquired) occlusal disorders is:

- A. occlusal restoration of normal relations.
- B. to restore the correct position of the mandibular condyles in the glenoid fossae.
- C. creation of new occlusal relations.
- D. raising the occlusion by 2 mm max.
- E. the correct answers are: C and D.

Nr 155. The neutral space is defined as:

- A. the border between free and attached gingival.
- B. the space characterized by force balance of mutual reactions of the tongue, lips and cheeks.
- C. anatomical space placed in the area with the maxilla and soft palate as the upper limit, mandible with the tissues of the oral cavity bottom – as the lower limit, the tongue - as the centrifugal limit, and inner surfaces of lips and cheeks - as the lateral limit.
- D. space that is used for extensive fixed partial denture retention.
- E. the correct answers are B & C.

Nr 156. Which of the following classifications concerns the relationship between tooth shape contour and face shape contour? The relationship consists in the fact that the margin of incisors refers to the frontal line and the perigingival margin refers to the chin shape.

- A. Hörauf classification.
- B. Christensen classification.
- C. Williams classification.
- D. Fush classification.
- E. Pond classification.

Nr 157. The correct period of using temporary overdentures that is recommended in the first stage of two-stage treatment of tooth attrition **should not exceed**:

- A. 1 month.
- B. 3 months.
- C. 6 months.
- D. 1 year.
- E. 1,5 year.

Nr 158. The hypertension of masseter muscles is the indication for:

- A. orthopedic- repositioning appliance.
- B. temporomandibular joint iontophoresis.
- C. muscle exercises limiting the mandible movement range.
- D. repositioning undertongue plate (RPP).
- E. all the answers are incorrect.

Nr 159. Frameworks of tooth-supported removable dentures can be made of:

- A. CoCr, NiCr and NiTi alloys.
- B. CoCr, NiCr and AgPd alloys.
- C. Titanium and NiCr alloys.
- D. Titanium and gold type IV alloys.
- E. none of the above is correct.

Nr 160. Which of the statements describing the properties of the basic dental alloys are correct?

- 1) the mechanical resistance is the main factor influencing application of metal alloy for denture fabrication;
- 2) the titanium alloys possesses the highest hardness, mechanical resistance including abrasion resistance and elasticity of all dental alloys;
- 3) mechanical resistance and elasticity of titanium determine the application in fixed and removable denture fabrication;
- 4) titanium and its alloys are one of the materials with high corrosion resistance;
- 5) good biocompatibility of dental alloys is connected with passive layer formation on their surface;
- 6) gold alloys are the most biocompatible of all prosthodontic metallic materials.

The correct answer is:

- A. 1,2,3,4.
- B. 1,2,3,5.
- C. 1,3,4,5.
- D. 2,3,4,5.
- E. 2,3,4,6.

Nr 161. Which of the statements describing AET bridges are correct?

- 1) AET bridges can be temporary or permanent restorations;
- 2) AET bridges can replace missing teeth, in most cases 1 or rarely 2 teeth;
- 3) abutment teeth should not have high mobility and should have proper height and favorable anatomical shape in order to provide a large adhesion surface for retention parts;
- 4) Maryland bridges demand perforation fabrication of retention parts and enamel etching in order to provide retention for resin;
- 5) the metal construction of AET bridges is usually made of NiCr or CoCr alloys owing to the high resistance of these alloys;
- 6) the preparation method of retention parts surfaces of AET bridges for adhesion to resin cement do not influence the adhesion force between retention parts and the cement.

The correct answer is:

- A.** 1,2,3,4. **B.** 1,2,3,5. **C.** 1,2,4,5. **D.** 1,2,4,6. **E.** 2,3,4,6.

Nr 162. Which of the statements concerning the fabrication of inlays are correct?

- 1) inlay replaces only a missing tooth tissue and do not strengthen tooth structure;
- 2) inlay behaves as a wedge and can cause cusp fracture;
- 3) inlay that embraces tooth bilaterally offers good retention for the bridge;
- 4) wider preparation of occlusal surface along with occlusal reduction of palatal cusp and covering occlusal surface with inlay (to form an overlay) is favorable;
- 5) inlays are becoming more popular because they offer not only single tooth restoration, but also complex rehabilitation, e.g. occlusion reconstruction in the construction bite;
- 6) 0,5-1mm occlusal reduction of the cusps is recommended in the case of porcelain inlay.

The correct answer is:

- A.** 1,2,3,4. **B.** 1,2,4,5. **C.** 1,2,4,6. **D.** 2,3,5,6. **E.** 2,4,5,6.

Nr 163. Which of the statements concerning denture relining are correct?

- 1) the indication for denture relining is more or less extensive alveolar bone atrophy that makes the denture utilization difficult;
- 2) immediate dentures used for the period 6 weeks to 6 months demand relining;
- 3) it is believed that an upper denture relining is easier;
- 4) oral cavity mucosa should be smooth, without damages, which is the necessary condition to perform relining;
- 5) a soft tissue conditioner is recommended in the case of soft tissue folds;
- 6) a contraindication for denture relining is very extensive alveolar bone resorption.

The correct answer is:

- A.** 1,2,3,4. **B.** 1,2,3,5. **C.** 1,2,4,5. **D.** 1,2,4,6. **E.** 2,3,4,6.

Nr 164. Surveying of master casts is applied during the planning stage in the case of prosthodontic restorations such as:

- | | |
|--------------------------------------|--------------|
| 1) post-crown; | 4) inlay; |
| 2) tissue-supported partial denture; | 5) bridge; |
| 3) tooth-supported partial denture; | 6) epitesis. |

The correct answer is:

- A.** 1,3,6. **B.** 2,3. **C.** 2,3,4,5,6. **D.** 2,3,7. **E.** 4,5,6.

Nr 165. Which of the following features are characteristic of the ideal bridge abutment?

- 1) vital tooth;
- 2) tooth with physiological mobility;
- 3) tooth with a little mobility (I° Entin);
- 4) healthy periodontium;
- 5) endodontically treated tooth;
- 6) tooth with correct root canal treatment and a post and core;
- 7) slight periodontitis is acceptable;
- 8) well-shaped root with large surface of periodontal ligament.

The correct answer is:

- A.** 1,2,4,6,8. **D.** all the answers are correct.
B. 1,2,5,7. **E.** all the answers are incorrect.
C. 2,3,6,8.

Nr 166. An adult patient was brought taken to hospital with body burns. The injuries are: left limb, back, buttocks and perineum (crotch). Using the “nine formula” for counting the percentage of body burn surface determine the correct percentage of burns:

- A.** 18%. **B.** 27%. **C.** 28%. **D.** 29%. **E.** 36%.

Nr 167. Adult patient, who suffered from thermal burn injury should be hospitalized if:

- A.** the burn injury is of 2nd degree and covers 17% of their body surface.
B. the burn injury affects their face.
C. the burn injury is of 3rd degree and covers 7% of their body surface.
D. the burn injury is electrical in nature and affects their hands.
E. all the answers are correct.

Nr 168. The correct dose of epinephrine and the way of its administration in patients suffering from anaphylactic shock are:

- A.** iv – 1 ml solution 1:1000. **D.** iv – 0.5 ml solution 1:1000.
B. im – 0.5 ml solution 1:1000. **E.** sc – 1 ml solution 1:1000.
C. sc – 0.5 ml solution 1:1000.

Nr 169. The best ratio of chest compressions to the number of rescue breaths during cardiopulmonary resuscitation performed by two professional rescuers in a 5-yr old child is:

- A.** 5:1. **B.** 5:2. **C.** 3:1. **D.** 15:2. **E.** 30:2.

Nr 170. Which of the following reasons **is not** a cause of cardiac arrest with Pulseless Electrical Activity?

- A. tension pneumothorax.
- B. cardiac tamponade.
- C. pulmonary embolism.
- D. hypothermia.
- E. all of the above can cause PEA.

Nr 171. The first choice examination of a patient suffering from asthma attack which allows to assess the patient's condition and further prognosis is:

- A. arterial gasometry.
- B. peak exhalation flow measurement.
- C. lung scintigraphy.
- D. chest X-ray.
- E. bronchofiberoscopy.

Nr 172. Which of the following **is not** the indication for hyperbaric chamber treatment of a patient after CO intoxication?

- A. consciousness disturbances.
- B. heart rate disturbances.
- C. the level of carboxyhemoglobine of 30%.
- D. pregnancy.
- E. SaO₂ of capillary blood 85%.

Nr 173. The best energy of the first cardioversion in haemodynamically unstable patient suffering from atrial flutter is:

- A. 120-150 J of biphasic defibrillators.
- B. 70-120 J of biphasic defibrillators.
- C. 150 J of monophasic defibrillators.
- D. 50 J of monophasic defibrillators.
- E. 70 J both for mono- and biphasic defibrillators.

Nr 174. In hyperkalemia the following treatment **is not** used:

- A. furosemid.
- B. sodium bicarbonate.
- C. magnesium sulphate.
- D. glucose infusion with insulin.
- E. ions exchanging resins anally administrated.

Nr 175. The dose of epinephrine administrated to a bronchus during cardiopulmonary resuscitation in the case of lack of intravenous access is:

- A. 10 mg diluted in 20 ml of 0.9% NaCl.
- B. 1 mg diluted in 1 ml of 0.9% NaCl.
- C. 1 mg diluted in 10 ml of 5% glucose.
- D. 3 mg diluted in 10 ml of injection water.
- E. 0.5 mg diluted in 1 ml of injection water.

Nr 176. Does the Polish Code of Medical Ethics allow any exemptions from medical secrecy?

- A. no.
- B. only in terminal conditions.
- C. only in court cases.
- D. there is no such provision in the Code.
- E. yes.

Nr 177. Does the Polish Code of Medical Ethics allow the doctor to clone people for therapeutic reasons?

- A. the Code recommends it.
- B. yes.
- C. no.
- D. yes, but only exceptionally.
- E. there is no relevant provision in the Code.

Nr 184. In accordance with the Act on professions of physician and dentist participation of minors in the medical research experiment is acceptable only if the following conditions are met:

- 1) the consent is given by the relevant youth court;
- 2) the expected benefits are of direct relevance to the health of the minor;
- 3) the risk is low and proportional to the possible positive results;
- 4) it is impossible to carry out such an experiment with the participation of persons of full legal capacity;
- 5) only if the minor is over 16.

The correct answer is:

- A.** 1,4,5. **B.** 2,3,4. **C.** 2,4,5. **D.** 1,3,5. **E.** 3,4,5.

Nr 185. According to the Pharmaceutical Law, the participants of a clinical trial may be granted financial inducements for taking part in the project only in the case of:

- A.** mature and healthy subjects participating in a research experiment.
B. minor and sick subjects participating in a therapeutic experiment.
C. mature and sick subjects participating in a therapeutic experiment.
D. minor and healthy subjects participating in a research experiment.
E. all categories of participants in any kind of experiment.

Nr 186. The medical ruling on temporary incapacity to work (ZUS ZLA) is based on:

- A.** a certificate of the residence of the insured person in hospital.
B. a certificate from the occupational health clinic.
C. direct medical examination of the insured person.
D. a certificate of medical assistance from the emergency department.
E. a written request from a medical specialist.

Nr 187. A certificate of the period of the residence in a health care stationary institution e.g. a hospital, is issued on the day of the discharge of the insured person from the institution. If the residence is longer than 14 days than in order to obtain the sickness benefit or remuneration for the period of the disease the certificate is issued every:

- A.** 3 days. **B.** 5 days. **C.** 7 days. **D.** 10 days. **E.** 14 days.

Nr 188. The insured person is entitled to appeal against the ruling of the SIF (ZUS) certifying doctor to:

- A.** the manager of the local branch of SIF (ZUS). **D.** the commissioner for the disabled.
B. the president of SIF (ZUS). **E.** the Minister of Health.
C. SIF (ZUS) medical board.

Nr 189. The statistical number of disease according to the International Statistical Classification of Diseases and Health Problems is included in a medical statement on temporary incapacity to work. This number is put on:

- A.** the original statement. **D.** the original statement and its second copy.
B. the first copy of the statement. **E.** the second copy of the statement.
C. the original statement and its first copy.

Nr 190. Certifying doctors and medical boards of SIF (ZUS) **do not** issue rulings on:

- A. temporary incapacity to work.
- B. total incapacity to work.
- C. the percentage of damage to health.
- D. inability to live independently.
- E. the degree of disability.

Nr 191. The medical ruling on temporary incapacity to work is a confidential document. It is the form of SIF (ZUS) which is only made available to:

- A. hospital administrators.
- B. medical unit managers.
- C. SIF (ZUS) certifying doctors.
- D. doctors authorized by SIF (ZUS) to issue certificates.
- E. medical specialists.

Nr 192. Adults are entitled to social pensions due to the impairment of their body which arisen in the periods specified in the Act on social pension if they:

- A. are partially unable to work.
- B. have the ruling of their slight degree of disability.
- C. have the ruling of their considerable degree of disability.
- D. are totally incapable to work.
- E. are totally unfit for service.

Nr 193. Which of the following is characteristic of the term “risk factor”?

- A. the presence of risk factors increases the likelihood of disease.
- B. modifications (reductions) in the intensity of risk factor decreases the incidence of disease in the population.
- C. the high prevalence in the population and generally available method of fighting risk factors.
- D. the correct answers are A and B.
- E. all the answers are correct.

Nr 194. Which of the following concerning the health care system **is false**?

- A. the primary objective of the health care system is to promote, improve and maintain good health of the members of the population.
- B. the health care system is part of the state socioeconomic policy.
- C. the primary objective of the health care system is to provide health services to the ill.
- D. the funding scheme of the health care system determines the way the system works.
- E. the health care system is to ensure universal and equal access to health care.

Nr 195. A systematic survey is:

- A. synonymous with meta-analysis.
- B. systematic quantitative statistical analysis that is applied to separate studies of the same clinical problem.
- C. an article which describes all the studies meeting adopted criteria and answering the same clinical question (the article may contain quantitative summary of the results of these studies).
- D. the correct answers are A and B.
- E. the correct answers are B and C.

Nr 196. A cohort study consists in:

- A. following over time two groups (cohorts) of individuals that differ with respect to exposure to the studied risk factor which may possibly be a cause of the disease.
- B. following over time one cohort, the individuals of which have been experiencing the disease.
- C. following over time two cohorts, the individuals of which have been experiencing the disease.
- D. following over time two cohorts, the individuals of which have not experienced the disease.
- E. following over time several cohorts in order to determine whether the studied risk factor appears.

Nr 197. Randomization in a scientific study indicates that:

- A. study participants are randomly assigned either to the investigational group or the control group.
- B. subsequent random patients are included in the study and the doctor determines on the grounds of their individual characteristics whether they should be assigned to the investigational group or the control group.
- C. the researchers do not know to which group the patient belongs to.
- D. the correct answers are A and C.
- E. the correct answers are A,B and C.

Nr 198. Screening examination is justified in the case of the diseases which:

- A. do not lead to serious health and social consequences.
- B. prevalence is over 1%.
- C. natural history is unknown.
- D. do not have the characteristic symptom (feature).
- E. the correct answers are A and B.

Nr 199. According to Lalonde's Commission Report the main determinants of the population health status are:

- A. genetic factors and the environment.
- B. the number of hospitals and the number of members of medical staff.
- C. the efficiency of the health care system.
- D. lifestyle and the environment.
- E. financial outlays on health care and health education.

Nr 200. HIV prevention includes:

- A. the promotion of healthy behaviour.
- B. broadening the general knowledge on the ways HIV infection spreads.
- C. popularizing the methods of protection against the infection.
- D. shaping the teenage attitudes to safe sex practices.
- E. all of them are correct.

Thank you!