

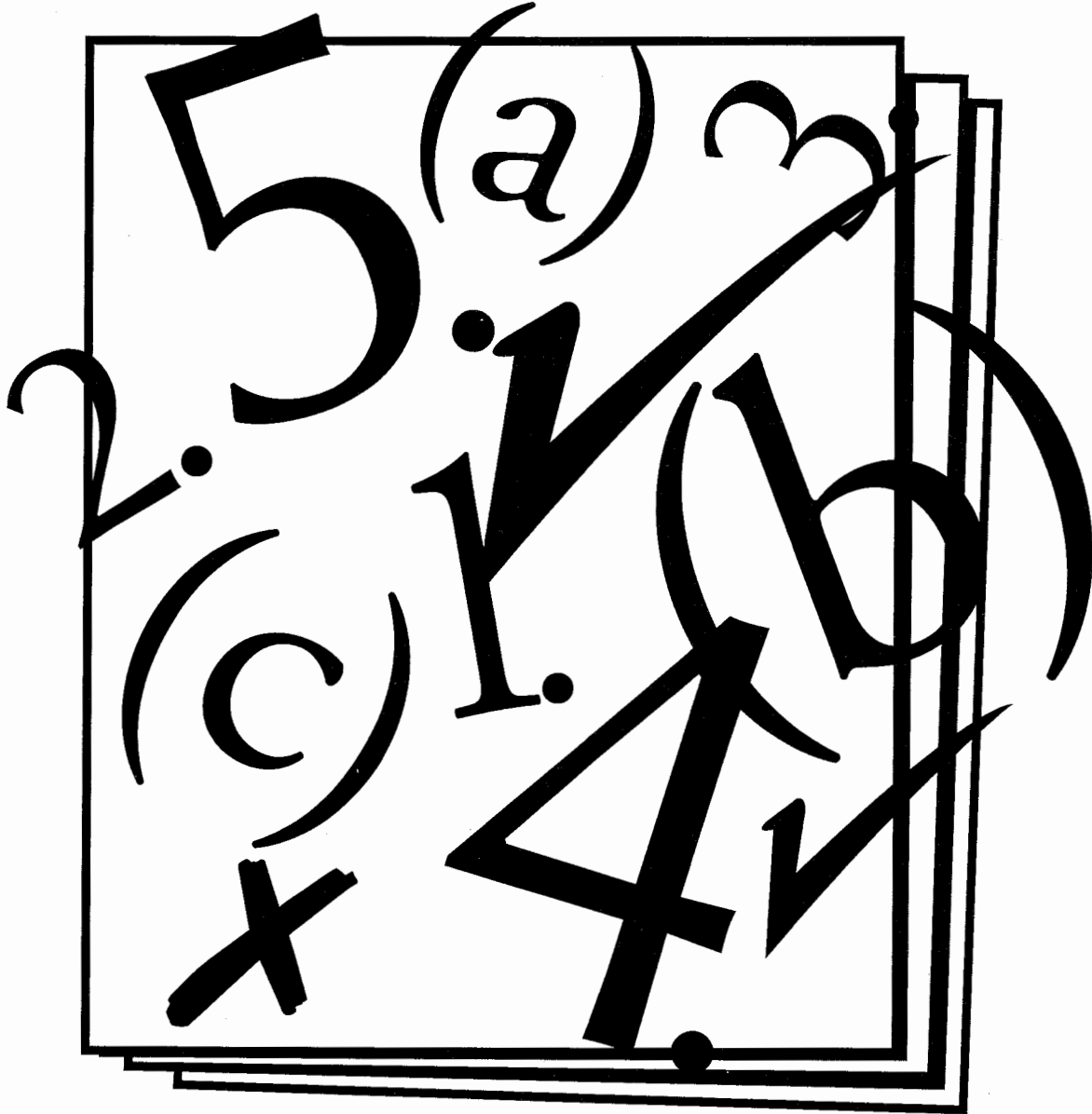
ASDA

American Student Dental Association

National Board Dental Examinations

TEST PACKET II-L

Compiled, released items from approximately 1998-2005



American Student Dental Association

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1. Alcohol abuse occurs when someone
 - A. drinks more than the legal limit of alcohol.
 - B. experiences withdrawal symptoms when not drinking.
 - C. gets seriously intoxicated on a regular basis.
 - D. drinks enough that it puts their relationships, job, or health in jeopardy.

2. Which of the following represents the purpose of an open-ended question?
 - A. Eliciting specific information
 - B. Testing patient's truthfulness
 - C. Gathering medical/legal information
 - D. Producing maximal freedom of response
 - E. Probing details of a specific topic

3. Which of the following exhibits the most personal behavior by the dentist?
 - A. Leaning toward patient
 - B. Facing directly toward patient
 - C. Sitting 2 feet from patient
 - D. Touching patient gently on arm

4. Which of the following most accurately explains how biofeedback works?
 - A. Reduces cognitive dissonance
 - B. Stimulates sympathetic nervous system
 - C. Relaxes and, to some extent, hypnotizes patient
 - D. Distracts and engages patient in active coping task
 - E. Enables patient to gain control of certain physiological functions

5. The characteristics of effective punishment include each of the following EXCEPT one. Which one is this EXCEPTION?
 - A. Immediacy
 - B. Consistency
 - C. Authority
 - D. Maximum Intensity

6. Stress and illness are often related. The best description of their relationship is which of the following?
 - A. Stress is a primary cause of illness.
 - B. Illness is an adaptation to stress.
 - C. Stress is a psychological reaction.
 - D. They often occur together but are causally unrelated.
 - E. Stress is contributory to illness and illness is usually stressful.

7. Which of the following is seen most frequently among chronic temporomandibular-joint disorder patients?
 - A. Depression
 - B. Psychosis
 - C. Sociopathy
 - D. Schizotypal behavior
 - E. Passive-aggressive behavior

8. For a patient with multiple sclerosis
 - A. epinephrine is contraindicated in local anesthetic.
 - B. the amount of anesthetic needed for a given procedure is less than for a normal patient.
 - C. the amount of anesthetic needed for a given procedure is more than for a normal patient.
 - D. a single cartridge of anesthetic will most likely not last as long as it would for a normal patient.

9. Each of the following is a common reason for early retirement of dentists EXCEPT one. Which one is this EXCEPTION?
 - A. Carpal tunnel syndrome
 - B. Chronic back pain
 - C. Hypertension
 - D. Mercury toxicity syndrome
 - E. Latex powder sensitivity

10. Which of the following represents the median of the data set below? 1, 1, 1, 1, 2, 2, 3, 3, 7, 9 (n=10; sum=30)
- 1
 - 2
 - 3
 - 7
 - 9
11. The ability of a patient to make choices among treatment options represents the concept of
- autonomy.
 - competence.
 - beneficence.
 - paternalism.
12. According to the *American Dental Association (ADA) publication entitled Principles of Ethics and Code of Professional Conduct*, a dentist can announce specialization in which of the following?
- Implantology
 - Hospital dentistry
 - Esthetic dentistry
 - Dental public health
 - Geriatric dentistry
13. For a population, the researcher divides the number of disease cases by the number of people. By so doing, this investigator will have calculated which of the following rates?
- Incidence
 - Odds ratio
 - Prevalence
 - Specificity
14. Which of the following computer databases contains references to dental literature electronically?
- LEXUS
 - OVID-MEDLINE
 - Dental Abstracts
 - Index to Dental Literature
15. In which of the following teeth does the pulpal anatomy dictate a triangular-access cavity preparation?
- Maxillary central incisor
 - Maxillary first premolar
 - Mandibular second premolar
 - Mandibular canine
16. An 8-year-old child has an exposed vital but inflamed coronal pulp in Tooth #14. The treatment of choice is
- pulpectomy
 - a direct pulp cap
 - an indirect pulp cap
 - pulpotomy
17. Which of the following is the least reliable finding from a clinical examination of teeth subjected to traumatic injury?
- Mobility of teeth
 - Vitality of teeth
 - Displacement of teeth
 - Loss of tooth structure
18. Which of the following teeth most often refer pain to the ear?
- Maxillary molars
 - Mandibular molars
 - Maxillary premolars
 - Maxillary anteriors
 - Mandibular anteriors
19. Five hours ago, a 12-year-old boy fell and fractured his maxillary right central incisor at the level of the gingival tissue. The exposed pulp is vital. For this tooth, which of the following represents the treatment of choice?
- Pulp cap
 - Pulpotomy
 - An apexogenesis procedure
 - Complete root canal treatment
 - Pulpectomy and placement of calcium hydroxide

20. For access preparation, the root canal anatomy of a maxillary second molar with 4 canals requires which outline form?
- Ovoid
 - Round
 - Triangular
 - Trapezoidal
 - Square
21. Which of the following is the best aid in the diagnosis of an irreversible pulpitis?
- Electric pulp test
 - Thermal test
 - Percussion
 - Test cavity
22. Which of the following characterizes replacement resorption?
- Chronic pain
 - Apical pathosis
 - Rapid progression
 - Acute inflammation
 - Ankylosis
23. Which of the following has the best prognosis for treatment?
- A tooth with external apical root resorption
 - A tooth with external lateral root resorption
 - A tooth with a vertical fracture that extends through the floor of the pulp chamber
 - An avulsed tooth that was replanted within one hour
 - A tooth with a small area of internal resorption
24. Which of the following represents the sequence in the replantation of mature, avulsed teeth?
- Repositioning, splinting, and performing root canal therapy
 - Performing root-canal therapy, repositioning, and splinting
 - Performing canal debridement, performing calcium hydroxide therapy, repositioning, splinting, and filling with gutta-percha
 - Repositioning, splinting, performing canal debridement, performing calcium hydroxide therapy, and filling with gutta-percha
 - Repositioning and splinting only
25. The pulpal floor is perforated during access preparation. Which of the following is the best course of action?
- Repair the perforation immediately; continue the root canal treatment
 - Continue the root canal treatment; repair the perforation at a subsequent appointment only if associated pathosis develops
 - Continue the root canal treatment; repair the perforation at a subsequent appointment
 - Perform no further treatment at this time; repair the perforation and continue the root canal treatment at a subsequent appointment
26. Early stage periapical cemental dysplasia is best differentiated from chronic apical periodontitis by
- percussion.
 - subjective symptoms.
 - periodontal examination.
 - results of pulp testing.
 - radiographic appearance.
27. Establishing drainage is an important aspect of emergency treatment for an acute periradicular abscess. An equally important aspect is
- adjusting the occlusion.
 - prescribing appropriate analgesics.
 - debriding the canal system of necrotic tissue.
 - introducing antimicrobial medicaments into the pulp space.
28. A maxillary central incisor of an adult patient is traumatized in an accident. The tooth is slightly tender to percussion, is in good alignment, and responds normally to pulp vitality tests. Radiographic examination shows a horizontal fracture of the apical third of the root. The best treatment is which of the following?
- Root canal treatment
 - Splint and re-evaluate the tooth for pulpal vitality at a later time
 - Apexification
 - Apicoectomy to remove the fractured apical section of the root followed by root canal treatment

29. A tooth with an incomplete crown fracture
- should be treated immediately with a direct pulp cap.
 - requires placement of a stainless steel crown to provide good pulpal protection.
 - does not need to be evaluated with thermal and electric pulp tests.
 - requires recontouring of chipped enamel.
 - requires vitality tests to determine the extent of pulpal damage.
30. The complete separation of a tooth from its alveolus is
- avulsion.
 - ankylosis.
 - subluxation.
 - extrusive luxation.
31. After obturation of a traumatized central incisor, a horizontal line of material in the midroot area extending both mesially and distally from the canal to the periodontal ligament space is noted. This indicates the presence of
- accessory canals.
 - a midroot fracture.
 - internal resorption.
 - external resorption.
32. If periapical radiolucency is present at the apex of a tooth with a middle third root fracture and the apical canal space is non-negotiable, the required treatment would be
- extraction because of the poor prognosis.
 - calcium hydroxide treatment of the coronal segment only.
 - apical surgery with a Super EBA reverse filling.
 - apical surgery with removal of the apical segment root canal treatment on the coronal segment.
 - extraction with removal of the apical segment and replantation of the coronal segment.
33. A patient experienced a blow to the mouth. Radiographs show a horizontal mid-root fracture of a maxillary central incisor. The tooth is NOT mobile and NOT symptomatic; however, it does not respond to pulp testing. No radiographic lesion is present. The best treatment is to
- institute root canal treatment to include both segments of the tooth.
 - extract the coronal segment and surgically remove the apical segment.
 - surgically remove the apical segment and reverse fill the coronal segment.
 - reform root canal treatment and place an endodontic endosseous implant pin to hold the two segments together.
 - render no treatment at this time and periodically recheck clinically and radiographically.
34. The apical foramen most often exits the root
- at the anatomic apex
 - less than 0.5 mm from the anatomic apex
 - 0.5-1.0 mm from the anatomic apex
 - more than 1 mm from the anatomic apex
35. A 7-year-old patient fractured the right central incisor three hours ago. A clinical examination reveals a 2-mm exposure of a "bleeding pulp." The treatment-of-choice is
- pulpectomy and apexification.
 - pulpotomy with calcium hydroxide.
 - direct pulp cap with calcium hydroxide.
 - one-appointment root canal treatment.
36. Which of the following outlines best describes the access cavity preparation on a mandibular molar with four canals?
- Oval
 - Trapezoidal
 - Triangular
 - Rectangular

37. Which of the following injuries to the teeth most often results in pulpal necrosis?
- Avulsion
 - Concussion
 - Intrusive luxation
 - Extrusive luxation
 - Mid-root horizontal root fracture
38. Loss of the apical seal caused by overinstrumentation is best managed by
- prescribing analgesics and antibiotics.
 - filling with a warm gutta-percha technique.
 - increasing the file size and decreasing the file length.
 - using a chelating agent and packing with calcium hydroxide.
 - filling with a gutta-percha cone that is larger than the apical perforation.
39. Which of the following sequences will a dentist most likely use in replanting mature avulsed teeth?
- Root canal therapy, repositioning, and splinting
 - Repositioning, splinting, and root canal therapy
 - Repositioning, splinting, canal debridement, calcium hydroxide therapy, and gutta-percha fill
 - Canal debridement, calcium hydroxide therapy, repositioning, splinting, and gutta-percha fill
40. A 34-year-old black woman presents for a routine oral examination. She is asymptomatic and there is no evidence of decay or tooth destruction, although slight periodontal disease is present. Radiographically, there are periapical radiolucencies present on two mandibular central incisors. Electric pulp testing indicates all teeth are responsive in a similar fashion. Which of the following is the treatment of choice?
- Initiate root canal treatment on the two teeth.
 - Test cavities on mandibular central incisors.
 - Identify the dark, potentially necrotic pulp chambers by transillumination.
 - Refer for evaluation to rule out possible malignancy.
 - No treatment is necessary at this time.
41. A patient of record calls late Saturday night because of severe, throbbing pain, aggravated by "heat, biting, and touching" in a mandibular premolar. What procedure is recommended?
- Instruct the patient to apply ice intermittently, take aspirin, and call Monday for an appointment.
 - See the patient at the office and initiate endodontic treatment.
 - See the patient at the office, remove the carious dentin and place sedative zinc oxide-eugenol cement.
 - Prescribe an analgesic and refer the patient to an endodontist.
 - Refer the patient to the hospital oral surgery department for extraction.
42. Incomplete removal of bacteria, pulp debris, and dentinal shavings is commonly caused by failure to irrigate thoroughly. Another reason is failure to
- use broaches.
 - use a chelating agent.
 - obtain a straight line access.
 - use Gates-Glidden burs.
43. The prognosis for internal bleaching is favorable when the discoloration is caused by
- necrotic pulp tissue.
 - amalgam restorations.
 - precipitation of metallic salts.
 - silver-containing root canal sealers.
44. Which of the following is the most effective way to reduce injury to the pulp during a restorative procedure?
- Prepare dentin with slow-speed burs.
 - Use anesthetics without vasoconstrictors.
 - Minimize dehydration of the dentinal surface.
 - Keep the dentinal surface clean by frequent irrigation.
 - Use light, short duration contact with the bur.

45. To enhance the patient's comfort in the dental setting, the dentist should do which of the following?
- Tell the patient what to expect during the appointment
 - Limit eye contact to avoid being unduly intimate
 - Provide an immediate evaluation of the patient's oral health
 - Demonstrate control through a directive interviewing style
46. Which of the following teeth have the most consistent canal morphology?
- Mandibular incisors
 - Maxillary canines
 - Mandibular premolars
 - Maxillary premolars
 - Mandibular molars
47. Rigid splinting of an avulsed permanent incisor will most likely lead to
- normal healing response.
 - calcific metamorphosis.
 - replacement resorption.
 - internal resorption.
 - root fracture.
48. Which of the following diagnoses represents an injury that causes the tooth to loosen but is not displaced?
- Concussion
 - Luxation
 - Subluxation
 - Extrusion
 - Intrusion
49. Waiting to allow intruded permanent central incisors to reerupt in an 8-year-old child will likely lead to
- a healing response and reeruption.
 - calcific metamorphosis.
 - internal resorption.
 - tooth discoloration.
 - ankylosis.
50. A traumatic injury can cause the pulp space to calcify, because the accident can trigger odontoclasts into accelerated activity.
- Both the statement and the reason are correct and related.
 - Both the statement and the reason are correct but NOT related.
 - The statement is correct but the reason is NOT.
 - The statement is NOT correct but the reason is correct.
 - NEITHER the statement NOR the reason is correct.
51. A minor traumatic injury can result in the enamel shearing-off of the underlying dentin.
- Traumatized odontoblasts will eventually lead to pulpal degeneration.
- Both statements are TRUE.
 - Both statements are FALSE.
 - The first statement is TRUE, the second is FALSE.
 - The first statement is FALSE, the second is TRUE.
52. Most recent studies on transport media show that the greatest longevity of PDL cells in avulsed permanent incisors is with
- milk.
 - saliva.
 - warm water.
 - buffered saline.
 - Hank's solution.
53. Soft tissue can be damaged by each of the following EXCEPT one. Which one is this EXCEPTION?
- Placement of gingival retraction cord
 - Home bleaching treatment
 - Use of an interproximal carver
 - Placement of a matrix band in a tofflemire retainer
 - Topical fluoride treatment

54. Increasing the amount of water in the mix of an improved gypsum die stone will most likely result in which of the following?
- More expansion and more strength
 - More expansion and less strength
 - Less expansion and more strength
 - Less expansion and less strength
55. Which type of glass filler is the most radiopaque?
- Barium
 - Quartz
 - Silicate
 - Fumed silica
56. The day after a routine Class V composite was placed, the patient reports discomfort from the tooth. Which of the following is most likely responsible for this complaint?
- No liner or base used
 - Over-etching with phosphoric acid
 - Too deep an axial depth of the preparation
 - Exposure of root dentin during the finishing procedures
57. A cast gold restoration might be indicated for the replacement of a faulty amalgam to obtain
- better margins.
 - more ideal contours.
 - less trauma to the pulp.
 - less removal of tooth structure.
58. Which of the following factors is of greatest importance in selecting a restorative material for a Class V cavity on the facial surface of a mandibular premolar?
- Reaction of gingival tissue
 - Resistance to stress
 - Ease of manipulation
 - Esthetics
59. Superficial decalcification and staining are evident in the buccal groove of a mandibular molar. Which of the following is the treatment of choice?
- Oral prophylaxis at 3-month intervals
 - Daily irrigation with pressurized water
 - Complete elimination of the area by preparation and restoration
 - Enameloplasty, limited to the superficial depth of the decalcified enamel
60. Which of the following conditions has a very favorable tooth- whitening prognosis?
- Blue-gray teeth
 - Aged-yellow teeth
 - Teeth exhibiting amelogenesis imperfecta
 - Old composite-resin restorations
61. A patient complains that a tooth with a recently placed large MOD restoration is tender to mastication and exhibits occasional thermal sensitivity. Which of the following is the most likely cause?
- Microleakage
 - Recurrent caries
 - Gingival recession
 - Premature occlusion
62. Dentists usually send their metal ceramic restoration cases to dental laboratory technicians for fabrication. Upon receiving the cases, these technicians most frequently complain that the
- margins have been ill-defined.
 - teeth have been insufficiently reduced.
 - shades for the restorations have been inadequately described.
 - impressions or models are inaccurate.
63. Which of the following is the earliest clinical sign of a carious lesion?
- Radiolucency
 - Patient sensitivity
 - Change in enamel opacity
 - Rough surface texture
 - Cavitation of enamel

64. Before beginning tooth preparation, the dentist should visualize the outline form to
- establish the convenience form.
 - establish the resistance and retention form.
 - prevent overcutting and overextension.
 - aid in the finish of enamel walls and margins.
65. When finishing the occlusal portion of a posterior composite restoration, the dentist should carefully
- eliminate contacts in the fossae.
 - avoid altering the centric contact on enamel.
 - develop centric contacts on cavosurface margins.
 - leave a 1 mm protective "fin" of material over the cavosurface margin.
66. Which of the following represents an effective treatment for mottled enamel (chalky white color mixed with brown spots)?
- Microabrasion with HCl/pumice
 - Vital tooth bleaching at home
 - Walking bleach after root canal treatment
 - In-office bleaching with 35% hydrogen peroxide
67. The anterior maxillary incisors of a middle-aged patient can be given a younger appearance by selective grinding of the enamel. The dentist performs this procedure by
- flattening the incisal edges.
 - shortening the incisal edges.
 - rounding the incisal point angles.
 - moving the facial line angles proximally.
 - moving the facial height of curvature gingivally.
68. A 40-year-old female patient complains of a painful, rapidly developing ulcer on the left side of her hard palate. This lesion appears crater-like and measures 1.5 cm. Which of the following represents the most likely diagnosis?
- Actinomycosis
 - Pleomorphic adenoma
 - Squamous cell carcinoma
 - Adenoid cystic carcinoma
 - Necrotizing sialometaplasia
69. A panoramic examination reveals a radiopaque lesion in a patient's maxillary sinus. The patient is asymptomatic. Each of the following should be considered in the differential diagnosis EXCEPT one. Which one is this EXCEPTION?
- Osteoma
 - Mucus retention pseudocyst
 - Odontoma
 - Periapical cyst
 - Antrolith
70. In radiography, a longer gray scale of contrast can be achieved by
- decreasing the filtration.
 - increasing the kilovoltage.
 - increasing the milliamperage.
 - increasing the focal spot-skin distance.
71. Which of the following is a disorder associated with a chromosomal abnormality that can occur as the result of either chromosomal nondisjunction or translocation?
- Ehlers-Danlos syndrome
 - Klinefelter syndrome
 - Turner syndrome
 - Trisomy 21(Down syndrome)
72. Which of the following conditions has the highest 5-year survival rate?
- Stage 1 well-differentiated squamous cell carcinoma involving the floor of the mouth
 - Stage 1 well-differentiated squamous cell carcinoma involving the soft palate
 - Stage 1 well-differentiated squamous cell carcinoma involving the right lateral tongue
 - Verrucous carcinoma of the right lower posterior vestibule
 - Verrucous carcinoma of the floor of the mouth

73. As an x-ray tube operates, electrons carry energy from the cathode to the anode. Into which of the following is most of this energy converted in the target?
- Heat
 - X rays
 - Magnetism
 - Electricity
 - Visible light
74. A 22-year-old male patient complains of dull pain in the posterior left mandibular region. A radiograph made of this area reveals not only a radiolucency around the first molar roots, but also a radiopacity of bone peripheral to this radiolucency. Which of the following best explains this condition? It is
- normal for this patient.
 - a developmental abnormality.
 - an error in radiographic technique.
 - a manifestation of systemic bone disease.
 - a reaction to an apical inflammatory disease.
75. An x-radiation dose of 4 Gy administered locally to a patient's arm is most likely to cause
- erythema.
 - bone marrow death.
 - carcinoma of the skin.
 - acute radiation syndrome.
76. The inferior concha is composed of all or part of which of the following bones?
- Maxilla
 - Ethmoid
 - Sphenoid
 - Palatine
 - Turbinates
77. A patient has pain over the left pre-auricular area; this patient can open approximately 45 mm and has a "pop-and-click" in the joint area. The most likely diagnosis is
- myofascial pain dysfunction syndrome.
 - internal derangement with reduction.
 - auriculotemporal syndrome.
 - coronoid hyperplasia.
78. Each of the following could be ruled out for the lesion distal to the mandibular third molar EXCEPT one. Which one is this EXCEPTION?
- Cementoblastoma
 - Osteoma
 - Fibroma
 - Salivary gland inclusion defect (Stafne defect)
79. When making a bite-wing exposure of the posterior teeth, the recommended vertical angulation may vary from
- 10 degrees to -5 degrees
 - 5 degrees to 10 degrees
 - 0 degrees to +5 degrees
 - +5 degrees to +10 degrees
80. A panoramic radiograph of an asymptomatic adult discloses a well-defined 1.5 cm radiolucency below the mandibular canal. The lesion is not palpable. Which of the following is the most likely diagnosis?
- Ameloblastoma
 - Traumatic bone cyst
 - Odontogenic keratocyst
 - Focal osteoporotic bone marrow defect
 - Salivary gland inclusion defect (Stafne)
81. Ectodermal dysplasia is characterized by each of the following EXCEPT one. Which one is this EXCEPTION?
- Hypodontia (oligodontia)
 - Blue sclera
 - Atrophic skin
 - Defective hair
 - Hypoplastic sweat glands
82. An 18-year-old man complains of tingling in his lower lip. An examination discloses a painless, hard swelling of his mandibular premolar region. The patient first noticed this swelling 3 weeks ago. Radiographs indicate a loss of cortex and a diffuse, radiating pattern of trabeculae in the mass. Which of the following is the most likely diagnosis?
- Leukemia
 - Dentigerous cyst
 - Ossifying fibroma
 - Osteosarcoma
 - Hyperparathyroidism

83. Malignant melanoma most commonly occurs in which of the following intraoral sites?
- Buccal mucosa and vestibule
 - Lateral and ventral tongue mucosa
 - Soft palate and tonsillar pillar complex
 - Hard palate and maxillary gingiva
 - Floor of mouth and anterior lingual gingiva
84. An adult patient presents with multiple, soft nodules and with macular pigmentation of the skin. Which of the following best represents this condition?
- Lipomatosis
 - Neurofibromatosis
 - Metastatic malignant melanoma
 - Polyostotic fibrous dysplasia
 - Nevoid basal cell carcinoma syndrome
85. A radiographic examination reveals a radiolucent area in the region of the mandibular left third molar. The third molar is not present. The clinical differential diagnoses should include each of the following EXCEPT one. Which one is this EXCEPTION?
- Ameloblastoma
 - Residual cyst
 - Odontogenic keratocyst
 - Dentigerous cyst
 - Odontogenic myxoma
86. Radiographs of an asymptomatic, 20-year-old patient reveal a sharply outlined radiolucent lesion in the mandibular first molar area. This 2 cm lesion scallops between the roots of vital teeth. The most probable diagnosis is
- radicular cyst.
 - dentigerous cyst.
 - traumatic bone cyst.
 - odontoma.
87. Examination reveals a soft, fluctuant, tender swelling in the midline of the hard palate. The teeth test vital. Radiographs reveal a radiolucent area projected between the roots of the maxillary central incisors. Which of the following cysts represents the most likely diagnosis?
- Nasolabial
 - Median palatal
 - Periapical
 - Nasopalatine duct
 - Incisive papilla
88. Incorrect horizontal angulation of the x-ray tubehead during exposure of a molar bite-wing leads to
- elongation of teeth.
 - overlapping of interproximals
 - overexposure of film
 - foreshortening of roots.
 - foreshortening of crowns.
89. Symptoms of pain and tenderness upon palpation of the temporomandibular joint are usually associated with which of the following?
- Impacted mandibular third molars
 - Flaccid paralysis of the painful side of the face
 - Flaccid paralysis of the non painful side of the face
 - Excitability of the second division of the fifth nerve
 - Deviation of the jaw to the painful side upon opening the mouth
90. A patient placed an aspirin directly in the mandibular facial sulcus. Shortly afterward, a well-circumscribed white patch appeared on the mucosa. Which of the following is the most likely diagnosis?
- Keratosis
 - Hyperplasia
 - Atrophy
 - Necrosis
 - Hypertrophy

91. Increasing mA setting of an x-ray unit raises which of the following?
- Photon speed
 - Photon wavelength
 - Number of photons generated
 - Voltage between anode and cathode
 - Effective energy of the resultant beam
92. Which of the following tissues is most sensitive to radiation?
- Hemopoietic
 - Endothelial
 - Muscular
 - Neural
 - Cartilagenous
93. The dentist is performing a block of the maxillary division of the trigeminal nerve. Into which anatomical area must the local anesthetic solution be deposited or diffused?
- Pterygomandibular space
 - Pterygopalatine space
 - Retropharyngeal space
 - Retrobulbar space
 - Canine space
94. Which of the following bacteria responsible for odontogenic infections are capable of adapting to either a high or low oxygen containing environment?
- Enteric organisms
 - Obligate anaerobes
 - Facultative organisms
 - Synergistic organisms
 - Microaerophilic organisms
95. The duration of activity of diazepam depends mainly on
- tolerance to the drug.
 - redistribution of the drug.
 - elimination of active metabolites.
96. A mandibular first molar crown is severely decayed. Each of the following procedures should be used to remove this tooth EXCEPT one. Which one is this EXCEPTION?
- Using a cowhorn forceps
 - Removing the thin lingual cortical plate of bone
 - Elevating the root sections with an east-west elevator
 - Splitting the tooth into mesial and distal root sections
 - Reflecting a modest buccal flap and removing the buccal bone
97. In removing four or more adjacent teeth, the dentist removes the inter-radicular bone and compresses the alveolar plates. This is a method of treating a
- severe exostosis.
 - severe labial undercut.
 - mandibular protrusion.
 - posterior vertical hyperplasia.
 - severe maxillary protrusion.
98. Sedation of a patient with nitrous oxide should always end with administration of 100% oxygen to prevent
- hypoxia.
 - hypercarbia.
 - tachycardia.
 - hypotension.
99. A dentist extracts a patient's mandibular molar, fracturing the mesial root. The distal root and superior portion of the mesial root are removed with the crown. The remaining portion of the mesial root should be removed with a
- Crane pick.
 - Cryer elevator.
 - straight elevator.
 - lower universal forceps.

100. Hypertrophy of the mandibular condyle in an adult can result in each of the following EXCEPT one. Which one is this EXCEPTION?
- Anterior open bite
 - Anterior crossbite
 - Ipsilateral posterior open bite
 - Unilateral Class III malocclusion
 - Asymmetric facial appearance
101. Which of the following represents the classic sign or symptom of an anteriorly displaced disc with reduction?
- Pain
 - Closed lock
 - Reciprocal click
 - Decreased range of motion
102. Acute pyogenic bacterial infections produce
- leukopenia.
 - lymphopenia.
 - neutropenia.
 - leukocytosis.
 - lymphocytosis.
103. Blade and root form implants are examples of which of the following types of implants?
- Endosseous
 - Transosteal
 - Subperiosteal
 - Ceramic
104. Which of the following teeth are the most susceptible to root fracture during extraction?
- Maxillary first premolars
 - Maxillary second premolars
 - Maxillary third molars
 - Mandibular first premolars
105. Each of the following is an indication for a posterior maxillary osteotomy EXCEPT one. Which one is this EXCEPTION?
- Correction of mandibular prognathism
 - Intrusion of the tuberosity, preparatory to denture construction
 - Closure of the anterior open bite in some cases of apertognathia
 - Skeletal arch width discrepancies that require lateral positioning of posterior segments
106. Two months after an extraction, a patient becomes ill with hepatitis. The dentist may be at fault if he
- does not wear a mask.
 - does not use an antiseptic before injection.
 - does not wear gloves when performing surgery.
 - uses cold sterilization for his surgical instruments.
107. Following immediate denture surgery, the best suture technique to use would be
- continuous.
 - interrupted.
 - vertical mattress.
 - never use sutures.
 - horizontal mattress.
108. For oral sedation in the dental setting, the most ideal group of agents is
- narcotics.
 - barbiturates.
 - antihistamines.
 - benzodiazepines.
 - anticholinergics.
109. The blade type dental implant is most useful for
- single tooth replacement.
 - anterior maxillary edentulous areas between first bicuspids.
 - edentulous posterior areas without posterior abutment teeth.
 - rehabilitation of a totally edentulous ridge (especially the mandible) with a fixed appliance.
110. In vestibuloplasty, a skin graft functions to
- prevent reattachment of muscle to periosteum.
 - promote osteogenesis to establish a bony barrier to loss of sulcus depth.
 - inhibit fibroblasts in the underlying tissue.
 - provide an adequate amount of nonkeratinized tissue.
111. The major reason for loss of transplanted autogenous third molars is
- infection.
 - immune rejection.
 - traumatic occlusion.
 - inadequate root length.

112. The split thickness skin graft vestibuloplasty provides
- an excellent vestibule, but carries high patient morbidity.
 - limited vestibular extension in the anterior lingual mandible.
 - the maximum ridge that is available for use in any given patient.
 - only temporary increase in vestibular depth as the skin graft contracts during healing.
113. An "emergency" occlusal separator should be constructed for patients who has which of the following conditions?
- Myositis
 - Hemarthrosis
 - Capsular fibrosis
 - Degenerative arthritis
 - Unilateral condylar hyperplasia
114. To obtain the best long-term result, which of the following procedures for genioplasty is recommended?
- Silastic* onlay implant
 - Proplast* chin implant
 - Autogenous onlay bone graft
 - Pedicled horizontal sliding osteotomy
 - Allogeneic freeze-dried onlay bone graft
115. The TMJ is innervated by the branches of each of the following nerves EXCEPT one. Which one is this EXCEPTION?
- Marginal mandibular
 - Auriculotemporal
 - Masseteric
 - Mandibular division of the trigeminal
 - Deep temporal
116. A 16-year-old patient presents with a firm, non-painful swelling in the mandibular premolar area. Adjacent teeth are vital. Radiographic evaluation reveals a discrete 4 cm radiolucency in the premolar area. Which of the following diagnostic procedures would be performed next?
- Excisional biopsy
 - Aspiration
 - CT scan
 - Alkaline phosphatase determination
 - Complete blood cell count with a differential
117. The most likely reason for a sudden temperature elevation six days after surgery is
- S.B.E.
 - atelectasis.
 - wound infection.
 - urinary tract infection.
118. Which of the following groups of cells are significantly phagocytic?
- Neutrophil and basophil
 - Basophil and eosinophil
 - Neutrophil and histiocyte
 - Neutrophil and lymphocyte
 - Plasma cell and lymphocyte
119. Which of the following is the least likely use of arthroscopy of the TMJ?
- Diagnosis of disk perforations
 - Lysis of adhesions
 - Disk manipulation
 - Therapeutic lavage
 - Repair of disk perforations
120. A chronic infection of the mandible of a middle-aged female patient has been treated with oral penicillin for three weeks. The primary problem appears to be resolved, but the patient now has many white patches on the dorsum of the tongue and buccal mucosa. Which of the following is the appropriate care for this patient?
- Discontinue all antibiotics.
 - Discontinue penicillin and prescribe nystatin troches.
 - Discontinue penicillin and prescribe a mouthwash containing metronidazole.
 - Discontinue penicillin treatment and substitute a broad spectrum antibiotic.
121. Which of the following symptoms is NOT commonly associated with acute suppurative osteomyelitis?
- Deep, intense pain
 - High, intermittent fever
 - Paresthesia or anesthesia of the inferior alveolar nerve
 - Loose teeth with suppurative drainage from the periodontal area

122. In most cases, which of the following is the accepted dose schedule of penicillin in the treatment of actinomycosis of the jaw?
- 250 mg. oral tablets q.i.d., 7 days
 - 500 mg. oral tablets q.i.d., 7 days
 - 600,000 units intramuscularly twice daily for two weeks followed by oral medication
 - 10 million units intravenously per day for 10-14 days followed by long-term oral medication.
123. Based on the Jones criteria, each of the following is a major manifestation of rheumatic fever EXCEPT one. Which one is this EXCEPTION?
- Fever
 - Chorea
 - Carditis
 - Polyarthritits
 - Erythema marginatum
124. Which of the following is the most common surgical procedure for treating chronic recurrent dislocation of the temporomandibular joint?
- Total joint replacement
 - Corrective orthognathic surgery
 - Articular eminectomy, usually combined with capsular plication
 - An interpositional arthroplasty, often combined with a coronoidectomy
 - Coronoidectomy and release of temporalis muscle from the mandible
125. A reservoir bag is used on an anesthesia machine in order to
- provide a market for used football bladders.
 - provide for urinary incontinence in the sedated patient.
 - provide a means of mixing N_2O and O_2 in measured amounts.
 - make up for the difference between the constant gas flow from the machine and the cyclic breathing pattern of the patient.
 - None of these
126. Which of the following factors is a clinician trying to control by using nitrous oxide?
- Referred pain
 - Pain stimulus
 - Pain reaction
 - Pain threshold
127. In a patient sedated with nitrous oxide, sudden, excessive and irrational merriment may mean that the patient
- likes you.
 - likes nitrous oxide.
 - is entering Stage I.
 - is entering Stage II.
128. Which of the following drugs best reverses the effects of benzodiazepines?
- Naloxone
 - Flumazenil
 - Midazolam
 - Aminophylline
 - Physostigmine
129. Which of the following is usually NOT used for IV conscious sedation in the dental office because of its long duration of clinically significant sedative effect?
- Diazepam
 - Lorazepam
 - Midazolam
 - Hydroxyzine
 - Propofol
130. Each of the following is an advantage of midazolam over diazepam EXCEPT one. Which one is this EXCEPTION?
- Less incident of thrombophlebitis
 - Shorter elimination half-life
 - No significant active metabolites
 - Less potential for respiratory depression
 - More rapid and predictable onset of action when given intramuscularly
131. Which of the following is characteristic of Verrill's sign?
- Ptosis of eyelid
 - Nystagmus in lateral gaze
 - Paresis due to CNS depression
 - Ophthalmoplegia upon exposure to light

132. Which of the following represents the primary symptom to demonstrate that midazolam (Versed®) has been injected intra- arterially rather than intravenously?
- Severe cardiac arrhythmia
 - Severe pain in the extremity
 - Rapid decrease in blood pressure
 - Rapid decrease in respiration rate
 - Exaggerated sedation due to the more direct effect of the drug
133. Which of the following clinical findings is generally NOT found in advanced osteoarthritis of the temporomandibular joint?
- Crepitus
 - Antegonial notching
 - Flattening of articular surface
 - Tendency toward apertognathia
 - Tendency toward prognathism
134. Before deciding whether to use a general anesthetic for surgical procedures, the two preoperative studies that should be considered first are
- bleeding time and clotting time.
 - complete blood count and urinalysis.
 - hemoglobin level and prothrombin time.
 - complete blood count and bleeding time.
 - total white blood cell count and prothrombin time.
135. The majority of patients with "temporomandibular joint pain/dysfunction syndrome" have
- normal dentitions.
 - no obvious TMJ pathology on panorex.
 - physical findings of rheumatoid arthritis in other joints.
 - evidence of destruction of cortical bone of the condylar head on the affected side.
136. Facial pain is mediated through all of the following pathways EXCEPT
- fifth cranial nerve.
 - ninth cranial nerve.
 - autonomic nerves.
 - cervical spinal nerves.
137. A 46-year-old male presents for multiple extractions. For the last 10 years, he has been taking 10 mg of prednisone daily for colitis. After consulting with the patient's physician, the practitioner should
- discontinue the patient's steroid therapy preoperatively.
 - halve the patient's dose of prednisone to 5 mg on the day of surgery.
 - switch the patient to another steroid for the perioperative period.
 - ask the patient to continue taking the prednisone and consider temporarily increasing the dose.
 - send the patient for serum prednisone levels.
138. Which of the following is an incorrect statement regarding a mucous retention phenomena?
- Is dome shaped
 - Appears radio-opaque
 - Requires surgical removal
 - Lined with respiratory epithelium
 - Protrudes from the floor of the maxillary sinus
139. What percentage of liquid is in an oxygen "E" cylinder when it is half full?
- Less than 1%
 - 25%
 - 50%
 - 95%
140. Which of the following is the most common postoperative problem associated with mandibular sagittal-split osteotomies?
- Infection
 - TMJ pain
 - Periodontal defects
 - Devitalization of teeth
 - Neurosensory disturbances
141. The nitrous oxide/oxygen sedation machine is set at 3 liters/min oxygen and 4 liters/min nitrous oxide. What is the concentration of oxygen administered?
- 33 percent
 - 43 percent
 - 53 percent
 - 63 percent
 - 73 percent

142. When both nitrous oxide and oxygen tanks are used to one-half of their capacities, what are their gas pressures in psi (The starting gas pressures are O₂ [2,000]; N₂O [750])?
- | | O ₂ | N ₂ O |
|----|----------------|------------------|
| A. | 1000 | 325 |
| B. | 2000 | 750 |
| C. | 1000 | 750 |
| D. | 2000 | 325 |
143. Each of the following describes nitrous oxide EXCEPT one. Which one is this EXCEPTION?
- It is widely used by hospital anesthesiologists.
 - It is essentially not metabolized.
 - It minimally alters cardiac output.
 - It is heavier than air.
 - It is explosive.
144. A dentist administers very high concentrations of nitrous oxide to the patient. The patient inhales room air immediately after the nitrous oxide is terminated. The patient is likely to experience which of the following complications?
- Vasovagal syncope
 - Diffusion hypoxia
 - Carbon dioxide retention
 - Hyperventilation syndrome
 - Respiratory depression or apnea
145. Repeated abuse of nitrous oxide results in
- systemic myopathy.
 - peripheral neuropathy.
 - thrombocytopenia.
 - acute narrow angle glaucoma.
146. The clinical activity of a single intravenous dose (10 mg) of diazepam is most dependent on which of the following?
- Alpha half-life
 - Beta half-life
 - Renal excretion
 - Enzymatic degradation
 - Hepatic biotransformation
147. Each of the following are narcotics used in outpatient anesthesia EXCEPT one. Which one is this EXCEPTION?
- Fentanyl
 - Sufentanil
 - Meperidine
 - Diazepam
 - Morphine
148. Which of the following describes the titration of diazepam to Verrill's sign for IV conscious sedation?
- It is recommended as an end-point.
 - It is recommended only when supplemental O₂ is used.
 - It is usually not attainable with diazepam alone.
 - It is not recommended since it can indicate a too-deeply sedated patient.
 - It is not recommended since few patients are adequately sedated at that level.
149. Myositis usually involves which of the following muscles?
- Masseter
 - Digastric
 - Mylohyoid
 - Lateral pterygoid
150. Dental elevators are single blade instruments that are
- used to retract the crestal gingiva prior to the application of the dental forceps.
 - designed to engage the tooth apical to the cemento-enamel junction.
 - designed to engage the tooth coronal to the cemento-enamel junction.
 - used to reflect a full thickness mucoperiosteal flap prior to the application of the dental forceps.
151. The only joint structure that exerts posterior traction on the articular disc is the
- inferior retrodiscal lamina.
 - superior retrodiscal lamina.
 - inferior head of the lateral pterygoid.
 - superior head of the lateral pterygoid.

152. When surgically entering the superior joint space, one must incise through the
- discal ligament only.
 - capsular ligament only.
 - capsular and discal ligaments.
 - capsular and retrodiscal lamina.
153. A split thickness skin graft or mucosal graft used to complete a vestibuloplasty primarily receives its nourishment and oxygenation from which of the following?
- The normal mucosa at the graft periphery
 - The exposed bone directly beneath the graft
 - The exposed periosteum that forms the graft bed
 - The vasculature in the subepithelial or submucosal layer moved to the site with the graft
 - The graft is serving to protect the site and is expected to necrose.
154. If there is insufficient tissue from the oral mucosa to close an alveolar cleft, the MOST common method for obtaining soft tissue coverage is by using
- dermis.
 - fascia lata.
 - a tongue flap.
 - Teflon-proplast.
 - freeze-dried dura.
155. The displacement of the proximal segment in an unfavorable angle fracture of the mandible would be caused by which of the following muscles?
- Digastric
 - Geniohyoid
 - Medial pterygoid
 - Lateral pterygoid
156. The needle holder has beaks which when compared to the hemostat are
- longer and thicker.
 - longer and thinner.
 - shorter and stronger.
 - shorter and more delicate.
157. Classifications of an impacted mandibular third molar are usually based on the
- extent of soft tissue and/or bone coverage.
 - relation of the tooth to the opposing third molar.
 - position of the tooth in relation to the long axis of the second molar.
 - All of these
 - Only (a) and (c) above
158. Which of the following abnormal findings is diagnostic of a trochlear nerve dysfunction?
- Proptosis
 - Dilated pupil
 - Eyes fail to move laterally
 - Eyes fail to move down and out
159. During extraction, the maxillary tuberosity is fractured but remains attached to the periosteum with an intact blood supply. The treatment of choice is to
- remove the tuberosity.
 - elevate the flap and place transosseous wires.
 - reposition the fragment and stabilize with sutures.
 - place the patient on antibiotic therapy and stabilize with titanium miniplate.
160. Inadvertent crush injuries to the lip are caused by which of the following parts of the forcep?
- Beak
 - Hinge
 - Shank
 - Blade
 - Handle
161. What type of mucoperiosteal flap is used for removal of a mesiodens?
- Envelope
 - Full palatal
 - Facial flap with relaxing incisions
 - Facial flap without relaxing incisions
 - None of these
162. Which of the following local anesthetics is most effective as a topical agent?
- Procaine
 - Lidocaine
 - Prilocaine
 - Bupivacaine

163. Postextraction alveolar osteitis most commonly develops in how many days?
- 1
 - 3
 - 5
 - 7
 - 10
164. Which of the following instruments is used to hold soft tissue which will not be removed from the body?
- Hemostat
 - Allis forceps
 - Adson forceps
 - Drain inserter
165. In which stage of tooth development does tetracycline discoloration occur?
- Apposition
 - Proliferation
 - Mineralization
 - Histodifferentiation
166. Which of the following traumatic injuries is most likely to result in pulp necrosis of a permanent tooth?
- Luxation
 - Intrusion
 - Extrusion
 - Concussion
 - Subluxation
167. The dentist is preparing a primary mandibular first molar for a stainless steel crown. Which of the following tooth surfaces will require the least amount of reduction?
- Buccal
 - Mesial
 - Lingual
 - Occlusal
168. A 5-year-old child has acute primary herpetic gingivostomatitis. To treat the condition, a dentist should consider each of the following EXCEPT one. Which one is this EXCEPTION?
- Prescribe erythromycin.
 - Place the child on a bland diet.
 - Encourage the child to drink plenty of fluids.
 - Order bed rest and minimal contact with other children.
 - Prescribe a topical anesthetic rinse for use before meals.
169. A 5-year-old child has a posterior unilateral crossbite that is accompanied by a functional shift of the mandible. When should this crossbite be corrected?
- Immediately, without waiting for the eruption of permanent first molars
 - When all the primary teeth have exfoliated
 - After the permanent first molars have fully erupted
 - When the child is approximately 9 years of age
170. A 4-year-old child has a history of frequent spontaneous pain in a primary mandibular second molar. This molar has a necrotic pulp. Which of the following represents the treatment of choice?
- Pulpectomy
 - Pulpotomy
 - Extraction
 - Pulp cap
171. A child has a very sore ulceration of the lower lip. There is no history of obvious trauma. The ulceration appeared several hours after the patient received dental treatment. Which of the following represents the most likely diagnosis?
- Herpes labialis
 - Postanesthetic lip bite
 - Chemical burn from aspirin
 - Aphthous ulcer secondary to stress
 - Allergic stomatitis to the rubber dam

172. When determining the appropriate dose of systemic fluoride supplement for a child, it is most important for the dentist to consider which of the following?
- The fluoride content of the drinking water.
 - The child's diet and caries activity.
 - The child's age and the fluoride content of the drinking water.
 - The child's weight and the fluoride content of the drinking water.
173. Which of the following should be done when a patient presents with a low, attached maxillary frenum, accompanied by a 3 mm diastema in the early transitional dentition?
- Perform a frenectomy when first observed
 - Observe until after eruption of permanent canines
 - Render treatment before complete eruption of maxillary incisors
 - Instruct patient to wear an elastic around teeth to close diastema
174. Which of the following should be included to ensure the best prognosis in the management of localized juvenile periodontitis?
- Systemic antibiotic therapy
 - Chlorhexidine mouthrinses
 - High doses of vitamin C
 - Free gingival grafts
 - Peroxide rinses
175. Which of the following best describes adjunctive orthodontic treatment?
- Orthodontic therapy performed only with removable appliances
 - Limited orthodontic treatment to align the front teeth for maximum esthetics
 - Orthodontic treatment to enhance restorative and periodontal rehabilitation
 - Early treatment of orthodontic problems to prevent more serious malocclusion
176. Modifying fear by familiarization is a successful method to use with children who
- are handicapped.
 - have a behavior problem.
 - mirror their parents' fear of the dentist.
 - have had previous traumatic medical experience.
177. Which of the following precautions should the dentist observe when providing dental care for a child with insulin-dependent diabetes?
- No special precautions are necessary.
 - The patient should be seen after a meal and insulin injection.
 - The patient should have an empty stomach and should take the insulin before the procedure.
 - The patient should have an empty stomach and postpone the insulin injection until after the procedure.
 - The patient should be seen after a meal and postpone the insulin injection until after the procedure.
178. How many hours per day should a cervical pull headgear be worn to achieve the most effective results?
- 6
 - 8
 - 10
 - 12
 - 14
179. The mandibular intercanine width continues to increase until which permanent tooth is fully erupted?
- Lateral incisor
 - Canine
 - First premolar
 - Second premolar
180. Which of the following diagnostic criteria is the least reliable in assessing the pulp status in the primary dentition?
- Swelling
 - Pulp testing
 - Spontaneous pain
 - Internal resorption
181. What space management treatment should be planned for a child age 4, missing both primary mandibular first molars with no primate space present?
- Lingual arch
 - Distal shoe(s)
 - Nance holding arch
 - Band-and-loop space maintainer(s)
 - Observation; no space maintainer necessary.

182. In communicating with children, which of the following should the dental team do?
- Allow the parent to answer questions asked by the child at chairside.
 - Allow both the parent and the dentist to communicate simultaneously with the child.
 - Transmit word substitutes for dental procedures and equipment during the appointment.
 - Attain voice control to build the groundwork for future instructions.
183. A 2-day-old developing plaque consists primarily of
- Treponema species.
 - Bacteroides species.
 - filamentous organisms.
 - gram-positive cocci and rods.
 - a structureless, non-mineralized pellicle.
184. Which of the following clinical findings has the greatest influence on the type of incision to use in periodontal flap surgery?
- probing depth
 - frenum attachment
 - depth of the vestibule
 - amount of attached gingiva
 - presence of intrabony defects
185. Daily cleaning of the root surface by the patient has been shown to
- cause root resorption.
 - cause root sensitivity.
 - stimulate the epithelial attachment.
 - allow remineralization of the root surface.
186. Which of the following is the least effective in removing crevicular plaque?
- Toothpick
 - Dental floss
 - A soft, nylon toothbrush
 - A water-irrigating device
187. An apically displaced flap is generally impossible in which of the following areas?
- Mandibular facial
 - Mandibular lingual
 - Maxillary facial
 - Maxillary palatal
188. Inflammation from periodontal disease usually extends to the bone marrow following
- the nutrient canals.
 - primary trauma from occlusion.
 - secondary trauma from occlusion.
 - the course of the vascular channels.
 - the course of the periodontal ligament.
189. To prove its clinical effectiveness, an antimicrobial agent must demonstrate that it
- reduces plaque mass.
 - helps to reduce disease.
 - specifically kills aerobic bacteria.
 - specifically kills anaerobic bacteria.
190. Maxillary first premolars with mesiodistal furcation involvements are often managed successfully by surgery. Therefore, they have a good prognosis and can be included as key abutments in a fixed prosthesis.
- Both statements are TRUE.
 - Both statements are FALSE.
 - The first statement is TRUE, the second is FALSE.
 - The first statement is FALSE, the second is TRUE.
191. Following flap surgery, new junctional epithelium can form on either cementum or dentin. Junctional epithelium is reestablished as early as one week.
- Both statements are TRUE.
 - Both statements are FALSE.
 - The first statement is TRUE, the second is FALSE.
 - The first statement is FALSE, the second is TRUE.
192. Which of the following systemic disorders can modify the inflammatory reaction?
- Epilepsy
 - Leukemia
 - Hemophilia
 - Hyperparathyroidism

193. A 26-year-old female patient states that for several years, small, red to white oral lesions have occurred irregularly. They are painful but heal in 7 to 10 days. Clinical examination reveals these lesions are located on alveolar nonkeratinized mucosa. The most likely diagnosis is
- recurrent aphthous stomatitis.
 - acute necrotizing ulcerative gingivitis.
 - recurrent herpes labialis.
 - acute herpetic gingivostomatitis.
194. Each of the following describes the experimental gingivitis model EXCEPT one. Which one is this EXCEPTION?
- It demonstrates the relationship between plaque formation and gingivitis.
 - It demonstrates that the bacterial ecology changes as plaque accumulates.
 - It demonstrates that gingivitis is a reversible disease.
 - It proves that gingivitis progresses to periodontitis.
 - It supports the non-specific plaque hypothesis.
195. A 35-year-old patient presents with swelling facial to a mandibular premolar. There is no severe pain, only mild discomfort. The involved teeth are vital and there are no periodontal pockets. Radiograph reveals a round radiolucency in the middle third of the root. Which of the following represents the most likely diagnosis?
- Gingival abscess
 - Lateral periodontal cyst
 - Osteogenic sarcoma
 - Periodontal abscess
 - Root resorption
196. The facial surface of the posterior mandible often presents limiting factors to proper treatment of periodontal defects. Which of the following is primary among these factors?
- Genial tubercles
 - Mentalis muscle
 - External oblique ridge
 - Internal pterygoid muscle
197. Which of the following can be a clinical feature of acute herpetic gingivostomatitis?
- Discrete, spherical vesicles
 - Temperature-sensitive teeth
 - Solitary, localized, edematous gingival lesions
 - Necrotic destruction of interdental gingival tissues
198. New attachment is the reunion of connective tissue and root separated by which of the following?
- Incision
 - Pathology
 - Injury
 - Iatrogenic causes
199. Osteotomy is a procedure that involves the
- use of an autograft.
 - use of an allograft.
 - use of a contiguous graft.
 - removal of tooth-supporting bone.
 - removal of non-tooth supporting tooth.
200. Which of the following landmarks will best guide the most esthetic location of the maxillary anterior artificial teeth on a complete denture?
- Incisive papilla
 - Midline of the nose
 - Median palatal suture
 - Anterior labial frenum
 - Anterior edentulous ridge
201. Addition cured silicones (polyvinyl siloxanes) are often the material of choice for impressions for fixed restorations. Each of the following is true about these materials EXCEPT one. Which one is this EXCEPTION?
- Give off ethyl alcohol during their setting reaction
 - Can be poured more than once and still remain accurate
 - Can be poured after 24 hours and still remain accurate
 - Rebound from undercuts without permanent deformation
 - May release hydrogen gas during setting

202. Which of the following describes the laterotrusive movement (Bennett angle)?
- It is the angle that is formed by the non-working condyle and the sagittal plane during lateral movements.
 - It is the angle that is formed by the condyle and the horizontal plane during protrusive movements.
 - It is the difference in condylar inclination between protrusive and lateral movements.
 - It is the difference between the condylar and incisal inclinations.
203. In selecting an impression tray for a preliminary maxillary impression, how far should the tray extend posteriorly?
- To the tuberosity
 - To the fovea palatina
 - Beyond the vibrating line
 - To the pterygomaxillary notches
204. Occlusal morphology is determined by the height of the cusp and the depth of the fossa. Each of the following is a vertical component of this morphology EXCEPT one. Which one is this EXCEPTION?
- Side shift
 - Intercondylar distance
 - Curve of Spee
 - Horizontal overlap of anterior teeth
205. Why is it advisable to dispense the liquid component of cement immediately before mixing?
- To avoid absorption of moisture from the air
 - To avoid spreading over a large area of the slab
 - To allow tempering of the powder by the mixing slab
 - To reduce the temperature influence of the mixing slab
 - To prevent evaporation of the volatile components
206. Which of the following groups of muscles are influential in molding the lingual border of the final mandibular impression for a complete denture?
- Hyoglossus, mylohyoid, medial pterygoid, digastric
 - Mylohyoid, styloglossus, medial pterygoid, depressor anguloris
 - Palatoglossus, superior pharyngeal constrictor, mylohyoid, genioglossus
 - Genioglossus, mylohyoid, middle pharyngeal constrictor, posterior belly of the digastric
207. Which of the following represents the MOST likely cause of plastic denture teeth being dislodged from the acrylic resin of the denture base?
- Excessive occlusal forces applied
 - Occlusal surfaces adjusted excessively
 - Retentive undercuts not placed in the teeth
 - Residual wax on teeth when processing
208. Which of the following represents the optimal incisal reduction for a metal-ceramic crown preparation?
- 1.0 mm
 - 1.5 mm
 - 2.0 mm
 - 2.5 mm
 - 3.0 mm
209. All-ceramic crowns should NOT be used for patients who are associated with each of the following conditions EXCEPT one. Which one is the EXCEPTION?
- Severe bruxism
 - Previous history of ceramic crown fractures
 - Amalgam restorations with marginal breakdown
 - Extensive wear of tooth structure or restorations
210. A static positional record can be used to adjust posterior articulator controls. In order to set the left condylar inclination and the left sideshift, which of the following are minimally required?
- Protrusive checkbite in incisal edge-to-edge position
 - Protrusive checkbite in extreme protrusive position
 - Right lateral excursive record
 - Left lateral excursive record

211. The long-term prognosis of a single-abutment cantilever fixed partial denture may be compromised, because forces are best tolerated by the periodontal supporting structures when directed in the long axes of the teeth.
- Both the statement and the reason are correct and related.
 - Both the statement and the reason are correct but NOT related.
 - The statement is correct, but the reason is NOT.
 - The statement is NOT correct, but the reason is correct.
 - NEITHER the statement NOR the reason is correct.
212. A patient with a posterior ridge relationship of a bilateral crossbite will most likely require that the posterior denture teeth be set in which of the following relationships?
- Class I normal horizontal overlap
 - Unilateral crossbite
 - Bilateral crossbite
 - Class II occlusion
213. In determining the psychological prognosis for a complete denture patient, one of the most valuable aids is which of the following?
- A classification of the ridge relation
 - An evaluation of the resorption of the ridges
 - An evaluation of the patient's occupational background
 - An evaluation of the patient's present dentures and attitudes
214. The long axis of a mandibular second molar, Tooth #18, is mesially tipped 30 degrees to the plane of occlusion. A 3-unit fixed partial denture from Tooth #18 to Tooth #20 is treatment planned for this 70-year-old patient. Which of the following complications during preparation of Tooth #18 would most likely affect the restoration's long-term prognosis?
- Short distal axial wall
 - Irreversible pulpitis
 - Latent sensitivity
 - Pulp exposure
215. To obtain the best results when using an elastomeric impression material, the dentist must ensure that the prepared tooth is
- very dry.
 - free of surface moisture.
 - covered thinly with a water soluble lubricant.
 - covered with a surface tension-reducing agent and air dried.
 - lubricated with a petroleum-free gel exhibiting minimal film thickness and low viscosity.
216. Vestibuloplasty is performed by
- using a bone file to smooth projections.
 - reducing buccal bone from the alveolar ridge.
 - reflecting a flap and using rongeurs to remove bone.
 - grafting iliac or rib bone onto the alveolar process.
 - apically repositioning the muscle and mucosal attachments to the jaw.
217. Which of the following groups of muscles influences the molding of the lingual border of the final mandibular impression for an edentulous patient?
- Hyoglossus, mylohyoid, medial pterygoid, digastric
 - Mylohyoid, styloglossus, medial pterygoid, depressor anguli oris
 - Palatoglossus, superior pharyngeal constrictor, mylohyoid, genioglossus
 - Genioglossus, mylohyoid, middle pharyngeal constrictor, posterior belly of the digastric
218. The retentive tip of a clasp arm is placed in an undercut because a flexible arm is best suited for reciprocation.
- Both the statement and the reason are correct and related.
 - Both the statement and the reason are correct but NOT related.
 - The statement is correct, but the reason is NOT.
 - The statement is NOT correct, but the reason is correct.
 - NEITHER the statement NOR the reason is correct.

219. In removable partial denture design, guiding planes serve to
- aid in balancing occlusion.
 - assure predictable clasp retention.
 - form right angles to the occlusal plane.
 - eliminate the necessity for precision attachments.
 - eliminate the necessity for a back-action clasp.
220. An examination of a complete denture patient reveals that the retromolar pad contacts the maxillary tuberosity at the occlusal vertical dimension. To remedy this situation, which of the following should be performed?
- Reduce the maxillary tuberosity by surgery.
 - Cover the tuberosity with a metal base.
 - Increase the occlusal vertical dimension.
 - Reduce the retromolar pad by surgery.
 - Omit coverage of the retromolar pad by the mandibular denture.
221. A patient presents with a restricted floor of the mouth, only 6 mandibular anterior teeth, and diastema between several teeth. Which of the following major connectors is appropriate for this patient?
- A lingual bar
 - A lingual plate
 - A lingual bar with a Kennedy bar
 - A lingual plate with interruptions (spaces) in the plate at the diastemas
222. Patients who have natural dentitions generate the greatest amount of occlusal force during
- swallowing.
 - mastication.
 - centric relation.
 - parafunctional movements.
223. Over a period of years, which of the following is the most likely reason for the breakage of a maxillary denture along the midline?
- Alveolar resorption
 - Porosity of the denture base material
 - Over-relief of the incisive papilla
 - Inadequate extension of the posterior palatal seal
224. Proximal grooves for a partial veneer crown preparation for a maxillary central incisor are placed parallel to the
- long axis of the tooth.
 - long axis of the clinical crown.
 - incisal one-third of the facial surface.
 - incisal two-thirds of the facial surface.
225. Which of the following is the most frequent cause of porosity in a porcelain restoration?
- Moisture contamination.
 - Improper metal degassing.
 - Use of excessive firing temperature.
 - Use of inadequate firing temperature.
 - Inadequate condensation of porcelain.
226. Which of the following is a bactericidal antibiotic used specifically in the treatment of infections caused by *Pseudomonas* species and indole-positive *Proteus* species?
- Penicillin V
 - Tetracycline
 - Dicloxacillin
 - Carbenicillin
227. The ratio of LD₅₀ to ED₅₀ provides information as to the drug's
- safety.
 - efficacy.
 - potency.
 - allergenicity.
 - therapeutic application.
228. A patient's early recovery from an ultrashort-acting barbiturate is related primarily to
- redistribution.
 - breakdown in the liver.
 - excretion in the urine.
 - breakdown in the blood.
 - binding to plasma proteins.
229. Excretion of an acidic drug will be enhanced if the patient is given which of the following?
- Mannitol
 - Aldosterone
 - Sodium chloride
 - Ammonium chloride
 - Sodium bicarbonate

230. Which of the following drugs is administered orally to treat vaginal candidiasis?
- Fluconazole (Diflucan[®])
 - Griseofulvin (Grifulvin[®])
 - Clotrimazole (Mycelex[®] Troche)
 - Miconazole (Monistat[®])
 - Nystatin (Mycostatin[®])
231. Respiratory difficulty due to blockade of the neuromuscular junction can be produced by which of the following?
- Penicillin
 - Sulfonamide
 - Streptomycin
 - Cephalosporin
 - Chloramphenicol
232. Each of the following EXCEPT one is an indication for the use of systemic antibiotics in dentistry. Which one is this EXCEPTION?
- Extraction (under local anesthesia) of a tooth for a patient who has acute periapical abscess
 - Full mouth extractions for a patient who has acute periodontal disease
 - Extraction of a mandibular third molar in a patient who has an acute pericoronitis
 - "Dry socket" developing following the extraction of a mandibular third molar
233. Three carpules (2 ml carpules, 40 mg/ml) of local anesthetic X are required to obtain adequate local anesthesia. To obtain the same degree of anesthesia with local anesthetic Y, five carpules (2 ml carpules, 40 mg/ml) are required. If no other information about the two drugs is available, then it is accurate to say that drug X
- is more potent than Y.
 - is less potent than drug Y.
 - is more efficacious than Y.
 - is less efficacious than drug Y.
 - X&Y are = in potency & efficacy.
234. A patient who has Parkinson's disease is being treated with levodopa. Which of the following characterizes this drug's central mechanism of action?
- It replenishes a deficiency of dopamine.
 - It increases concentrations of norepinephrine.
 - It stimulates specific L-dopa receptors.
 - It acts through a direct serotonergic action.
235. Tardive dyskinesia is a neurological side effect of which of the following classes of drugs?
- Alcohols
 - Tricyclic antidepressants
 - Barbiturate antiepileptics
 - Phenothiazine antipsychotics
 - Monoamine oxidase inhibitors
236. Which of the following penicillin drugs cannot be given orally?
- Ampicillin
 - Cloxacillin
 - Methicillin
 - Penicillin G
 - Penicillin VK
237. Which of the following describes ciprofloxacin (Cipro[®])?
- Inhibits cell wall synthesis.
 - Effective against *Pseudomonas aeruginosa*.
 - Effective only against anaerobic bacteria.
 - An antibiotic-of-choice for treating otitis media in young children.
 - Effective against oral anaerobes.
238. Which of the following statements best describes clindamycin (Cleocin[®])?
- It inhibits cell wall synthesis.
 - It does not penetrate well into bony tissue.
 - It is usually given in combination with erythromycin.
 - It is effective against gram-negative bacteria only.
 - It is effective against most anaerobes.

239. Each of the following drugs produces vasoconstriction of vessels if injected into the gingiva EXCEPT one. Which one is this EXCEPTION?
- Epinephrine (EpiPen[®])
 - Terazosin (Hytrin[®])
 - Levonordefrin (Neo-Nedfrin[®])
 - Phenylephrine (Neo-Synephrine[®])
 - Norepinephrine (Levophed[®])
240. Which of the following drugs is an "irreversible" cholinesterase inhibitor?
- DFP (Isoofluorophate[®])
 - Pilocarpine (pilocar[®])
 - Neostigmine (Prostigmine[®])
 - Physostigmine (Antilirum[®])
241. Each of the following is a symptom of poisoning by an organophosphate insecticide EXCEPT one. Which one is this EXCEPTION?
- Diarrhea
 - Hot, dry skin
 - Excessive salivation
 - Increased lacrimation
 - Skeletal muscle fasciculation
242. DFP and organophosphate insecticides produce their effects by
- blocking nicotinic receptors.
 - blocking muscarinic receptors.
 - competitively inhibiting cholinesterases.
 - non-competitively inhibiting cholinesterases.
243. Gingival overgrowth, hirsutism, coarsening of facial features, lymph gland hypertrophy, cognitive deficits, and fetal abnormalities are side effects associated with which of the following antiepileptic drugs?
- Phenobarbital
 - Carbamazepine (Tegretol[®])
 - Valproate (Depakene[®])
 - Phenytoin (Dilantin[®])
 - Ethosuximide (Zarontin[®])
244. Which of the following is recommended for treating the pain of tic douloureux (trigeminal neuralgia)?
- Oxycodone
 - Ibuprofen
 - Carbamazepine
 - Hydrocortisone
 - Acetylsalicylic acid
245. Cycloplegia can be produced by
- ephedrine.
 - pilocarpine.
 - amphetamine.
 - acetylcholine.
 - homatropine bromide.
246. Which of the following is an irreversible cholinesterase inhibitor?
- Edrophonium
 - Physostigmine
 - Neostigmine
 - Pilocarpine
 - Diisopropylfluorophosphate
247. In a clinical pharmacologic comparison of atropine and its quaternary ammonium derivative methylatropine nitrate, one might expect to observe that
- atropine is more potent than methylatropine nitrate after oral administration.
 - methylatropine nitrate is more potent and effective than atropine in the treatment of Parkinson's disease.
 - the ratio of the effective oral dose to the effective parenteral dose is higher for atropine than for methylatropine nitrate.
 - in doses equieffective in affecting the salivary glands, drowsiness and clouding of consciousness is a more prominent effect with methylatropine nitrate than with atropine.
248. Among cholinergic agents, a quaternary ammonium group in the structure of the drug appears necessary for which of the following actions?
- Nicotinic anticholinesterase
 - Direct nicotinic stimulation
 - Muscarinic anticholinesterase
 - Direct muscarinic stimulation
 - Central nervous system activity

249. The endplate potential of the neuromuscular junction and the excitatory postsynaptic potential of the autonomic ganglion is generated by
- the hydrolysis of acetylcholine.
 - a greater mobility of potassium ions in the postsynaptic membrane.
 - reduction of the resting potential at the postsynaptic area by acetylcholine.
 - a nonspecific increase in the conductances of sodium, chloride and potassium ions at the postsynaptic membrane.
250. Neostigmine is different from physostigmine because neostigmine
- is not a clinically useful drug.
 - is well absorbed from the gastrointestinal tract.
 - has an additional direct effect at the neuromuscular junction.
 - is a reversible cholinesterase inhibitor while physostigmine is an irreversible one.
 - has the specificity to selectively block cholinesterase at the neuromuscular junction.
251. Which of the following statements is true regarding the directly acting cholinomimetics?
- Methacholine has more prominent cardiovascular action than carbachol
 - Carbachol and bethanechol are almost completely resistant to action of ACHE
 - Bethanechol has some degree of selectivity for gastrointestinal and urinary bladder smooth muscle
 - All of these
252. Which of the following statements is true concerning anticholinesterase?
- Agents such as DEP inhibit only plasma cholinesterase.
 - Organophosphates are readily absorbed through the skin.
 - Agents may cause paroxysmal supraventricular tachycardia.
 - Reactivators such as 2-PAM reactivate ACHE which has undergone "aging".
 - Alkaloid physostigmine has the greatest number of side effects unrelated to ACHE inhibition.
253. The relationship of methacholine to acetylcholine is as
- a vehicle.
 - a congener.
 - an isomer.
 - an adjuvant.
 - an antagonist.
254. Compared to codeine, morphine is
- safer.
 - a more potent analgesic.
 - a more efficacious analgesic.
 - ineffective when administered orally.
255. The 1997 American Heart Association recommendations for prevention of bacterial endocarditis includes which of the following dental procedures for antibiotic coverage?
- Placement of rubber dams
 - Orthodontic appliance adjustment
 - Local anesthetic injections (nonintraaligamentary)
 - Subgingival placement of antibiotic fibers or strips
 - Restorative dentistry with or without retraction cord
256. Methylparaben preservative most likely shows cross-sensitivity with which of the following anesthetics?
- Xylidides
 - Ortho-tuluidide derivatives
 - Para-aminobenzoic acid esters
 - Meta-aminobutyric acid esters
257. Antibiotics are obtained from growth of
- fungi and viruses.
 - bacteria and fungi.
 - tissue cell cultures.
 - viruses and mycoplasmas.
 - mycoplasmas and rickettsiae.
258. Which of the following drugs is excreted primarily by renal tubular secretion?
- Benzylpenicillin
 - Streptomycin
 - Tetracycline
 - Bacitracin
 - Polymyxin

259. Nalidixic acid is best described as
- an antiviral agent.
 - an antifungal agent.
 - an antityphoid agent.
 - an antituberculous agent.
 - a urinary tract antiseptic.
260. Ethambutol is
- an antiviral agent.
 - an antifungal agent.
 - an antityphoid agent.
 - an antituberculous agent.
 - a urinary tract antiseptic.
261. Isoniazid is
- an antiviral agent.
 - an antifungal agent.
 - an antityphoid agent.
 - an antituberculous agent.
 - a urinary tract antiseptic.
262. Which of the following drugs may cause renal lithiasis (kidney stones) resulting from its limited solubility in water?
- Streptomycin
 - Erythromycin
 - Acetaminophen
 - Deteriorated tetracyclines
 - Sulfamethoxazole (a constituent of Bactrim DS)
263. Which of the following combinations is appropriate for treatment of uncomplicated respiratory tuberculosis?
- Streptomycin and chloramphenicol, because both are lipid- soluble.
 - Isoniazid (INH) and rifampin, because they have different modes of action.
 - Ethambutol and isoniazid, because both drugs inhibit bacterial folic acid synthesis.
 - Griseofulvin and streptomycin, because both drugs accumulate on bacterial 50S ribosomes.
 - None of these
264. Which of the following is effective for treatment of a penicillinase-producing systemic staphylococcal infection when taken orally?
- Methicillin
 - Penicillin V
 - Streptomycin
 - Moxalactam
 - Oxacillin
265. Which of the following is a "third generation" cephalosporin?
- Cephmandole
 - Moxalactam
 - Amikacin
 - Cephalexin
 - Clavulanic acid
266. Treatment with sulfonamides is less likely to be accompanied by crystalluria if
- a mixture of sulfonamides is used.
 - cortisone is administered concurrently.
 - probenecid is administered concurrently.
 - the urine is acidified with ammonium chloride.
 - para-aminosalicylic acid is administered concurrently.
267. Which of the following is most often associated with sensitivity of the skin to sun's rays?
- Demeclocycline
 - Penicillin V
 - Erythromycin
 - Lincomycin
 - Nystatin
268. Which of the following tetracyclines is most slowly excreted?
- Doxycycline
 - Tetracycline
 - Oxytetracycline
 - Chlortetracycline
269. Each of the following is an endogenous opioid peptide EXCEPT one. Which one is this EXCEPTION?
- Endorphin
 - Dynorphin
 - Bradykinin
 - Enkephalin

270. Which of the following penicillins would be used to treat a *Pseudomonas* infection?
- Nafcillin (Unipen)
 - Amoxicillin (Amoxil)
 - Benzathine penicillin (Bicillin)
 - Phenoxymethyl penicillin (Pen-Vee K)
 - Ticarcillin (Ticar)
271. The chronic use (2 or more weeks) of clindamycin (Cleocin) is not recommended because
- many people develop allergies while on the drug.
 - severe hepatotoxicity frequently occurs.
 - severe renal toxicity frequently occurs.
 - there is a high incidence of blood dyscrasias.
 - there is a high incidence of pseudomembranous colitis.
272. 3.6 ml solution of 4% prilocaine contains how many mg?
- 3.6
 - 36
 - 72
 - 144
 - 360
273. Which of the following statements best describes the action of local anesthetics in inflamed tissue? Local anesthetics
- diffuse or penetrate more rapidly to the nerve due to their ionic charge.
 - diffuse or penetrate more rapidly to the nerve because they are predominantly non-ionized.
 - are less efficacious because of the decreased pH of extracellular fluid.
 - are quickly inactivated by inflammatory mediators.
 - generally have a longer duration of action.
274. A 35-year-old patient who has an acute suppurative pulpitis is scheduled for tooth extraction. Due to this patient's history of rheumatic heart disease, the practitioner administered penicillin chemoprophylaxis. Fifteen minutes later, this practitioner notices that the periorbital tissue and the lips of the patient are edematous. These findings are consistent with a diagnosis of
- hematoma formation.
 - angioneurotic edema.
 - congestive heart failure.
 - an acute anaphylactoid reaction.
275. Postural hypotension is a common complaint of patients who take antihypertensive agents because many of these agents interfere with the
- sympathetic control of vascular reflexes.
 - release of acetylcholine in the ganglia.
 - epinephrine release from the adrenal medulla.
 - parasympathetic control of vascular resistance.
 - neuromuscular transmission in skeletal muscles.
276. Which of the following tetracyclines with a long biological half-life allows once-per-day dosage?
- Doxycycline
 - Oxytetracycline
 - Chlortetracycline
 - Demethylchlortetracycline
277. Which of the following is the preferred pharmacologic treatment for a xerostomia?
- 5 mg Pilocarpine
 - 1 mg Epinephrine
 - 5 mg Levonordefrin
 - 1 mg Malathion
278. Biologic changes in the aging patient affect both pharmacokinetics and pharmacodynamics of drugs, which in turn, are manifested as each of the following EXCEPT one. Which one is this EXCEPTION?
- Decreased renal excretion
 - Increased plasma protein binding
 - Increased half lives of some drugs
 - Decreased rate of biotransformation
 - Altered volume of distribution and sequestration of drug in body fat
279. Which of the following is the treatment of choice for lidocaine-induced seizures?
- Epinephrine (EpiPen[®])
 - Naloxone (Narcan[®])
 - Diazepam (Valium[®])
 - Flumazenil (Romazicon[®])
 - Succinylcholine (Anectine[®])

280. Which of the following penicillins would be used to treat a *Pseudomonas* infection?
- Ticarcillin (Ticar)
 - Ampicillin (Omnipen)
 - Cloxacillin (Tegopen)
 - Phenoxymethyl penicillin (Pen-Vee K)
281. Which of the following erythromycins is both enteric coated and long acting?
- ERYC
 - E.E.S.
 - Erythrocin
 - Ilosone
282. The chronic use (two or more weeks) of clindamycin (Cleocin) is not recommended because it may cause
- blood dyscrasias.
 - hepatotoxicity.
 - renal toxicity.
 - pseudomembranous colitis.
283. Drug interaction resulting in serious adverse cardiovascular events, including death, might occur between erythromycin and which of the following antihistamine drugs?
- Terfenadine (Seldane[®])
 - Promethazine (Phenergan[®])
 - Hydroxyzine (Atarax[®])
 - Diphenhydramine (Benadryl[®])
 - Chlorpheniramine (Chlor-trimenton[®])
284. Hypersensitivity reactions to the penicillin derivatives include which of the following classical types?
- Type I only
 - Types I, II, and IV
 - Type IV only
 - Types I, II, III, and IV
285. Which of the following agents is used for HIV infections?
- Amantadine (Symmetrel[®])
 - Acyclovir (Zovirax[®])
 - Zidovudine (Retrovir[®])
 - Ribavirin (Virazole[®])
 - Isoniazid (Nydravid[®])
286. Which of the following drugs induced the first dramatic remission in acute leukemia in children?
- Mechlorethamine
 - Carmustine
 - Aminopterin
 - Streptozocin
 - Mercaptopurine
287. The ability to "maintain a patient airway independently" is a requirement of
- conscious sedation
 - deep sedation
 - general anesthesia
288. Atropine
- stimulates sweat and saliva secretion.
 - at moderate to high doses usually increases heart rate.
 - relieves ptosis in myasthenia gravis
 - is devoid of central nervous system effects because it does not cross the blood-brain barrier.
289. Which of these opioid analgesics is associated with a serious life threatening drug interaction when administered with an MAO inhibitor?
- meperidine
 - morphine
 - fentanyl
 - propoxyphene
 - codeine
290. Which dietary supplement has been used by the public for weight loss and is considered very dangerous
- Ephedra
 - Ginseng
 - Garlic
 - Gingko
 - Echinacea
291. Which of the following groups of drugs is contraindicated for patients who have glaucoma?
- Adrenergic
 - Cholinergic
 - Anticholinergic
 - Adrenergic blocking

292. Which of the following is classified as an anti-anxiety drug?
- Methohexital
 - Lorazepam
 - Haloperidol
 - Pentazocine
 - Phenylpropanolamine
293. Cholinomimetic drugs can produce which of the following effects?
- Increased salivation
 - Peripheral vasoconstriction
 - Decreased gastric secretions
 - Decreased gastrointestinal peristalsis
 - Increased force of myocardial contraction
294. Grand mal seizure is best treated with which of the following drugs?
- Phenytoin (Dilantin[®])
 - Thioridazine (Mellaril[®])
 - Ethosuximide (Zarontin[®])
 - Trimethadione (Tridione[®])
 - Chlorpromazine (Thorazine[®])
295. Each of the following is a pharmacologic effect of phenothiazines EXCEPT one. Which one is this EXCEPTION?
- Sedation
 - An antiemetic effect
 - Alpha-adrenergic blockade
 - Potential of the action of narcotics
 - An anticonvulsant
296. The extrapyramidal syndrome seen with the antipsychotic agents is due to their action on the
- cerebellum.
 - brain stem.
 - hypothalamus.
 - basal ganglia.
 - cerebral cortex.
297. In which of the following categories are ephedrine, tyramine, and amphetamine classified?
- Anticholinesterases
 - Alpha-adrenergic blocking agents
 - Indirect-acting sympathomimetics
 - Direct-acting parasymphomimetics
298. Which of the following is a beta-adrenergic receptor blocking agent used for the treatment of hypertension?
- Prazosin (Minipress)
 - Clonidine (Catapres)
 - Atenolol (Tenormin)
 - Hydralazine (Aprezoline)
 - Verapamil (Calan)
299. Which of the following compounds is used as an antiviral agent?
- Amantadine (Symmetrel)
 - Novobiocin
 - Miconazole (Monistat)
 - Amphotericin B
300. Which pair of anesthetics is most likely to show cross-allergy?
- Lidocaine - mepivacaine
 - Prilocaine - tetracaine
 - Procaine - mepivacaine
 - Procaine - lidocaine
 - Lidocaine - benzocaine

NATIONAL BOARD PART II Released Case Items

IT IS IMPORTANT TO READ THE FOLLOWING INSTRUCTIONS

1. All of the following test items refer to material presented in the Booklet of Cases.
2. In the Booklet of Cases, each of the 2 cases (A, and B) is presented with:
 - A synopsis of the patient history
 - A clinical examination chart
 - Radiographs, when available
 - Clinical photographs, when necessaryImages have been properly oriented unless otherwise stated. If an image is a mirrored image, it will be labeled as such.

You should review these materials before answering the test items for each case.

3. The clinical examination charts represent each patient's clinical findings. Restorations have not been charted; some (but not all) carious lesions that might be visible on the radiographs/photographs have been charted.
4. The sequencing of items within cases parallels actual practice. Thus, as the treatment proceeds, new information might be given in subsequent items to guide you in making future treatment decisions. When this new information is provided, it should not influence your answers to prior items.

Case A #'s 1- 14

- Which of the following approaches is the most likely to facilitate establishment of consistent toothbrushing behavior?
 - Have the patient's mother brush his teeth at least once a day.
 - Have the mother take away the patient's "sweet snacks" unless he brushes.
 - Have the patient's siblings demonstrate brushing and encourage the patient to join them.
 - Provide the patient with a small candy reward for brushing each time he does it on his own.
 - Establish a self-charting system so that the patient can see the change in his behavior.
- Which of the following represents the most likely source of this patient's anxiety reaction?
 - Experiences of his siblings that they have related to him
 - Prior medical experiences that were painful
 - Patient's reaction to his parents divorce
 - Prior dental experience
 - Child's peer group
- Standard psychological behavior management techniques are unsuccessful in helping this child cope with his mild anxiety. Which of the following would be most appropriate at the next appointment?
 - Physical restraint by the parent
 - Sedation with oral meperidine
 - Sedation with chloral hydrate and hydroxyzine
 - Physical restraint by the dentist (Papoose Board[®])
 - Nitrous oxide-oxygen inhalation sedation
- Which of the following represents the appropriate supplemental fluoride dose for this patient?
 - No supplement required
 - 0.25 mg per day
 - 0.50 mg per day
 - 0.75 mg per day
 - 1.0 mg per day
- Which of the following is the most likely cause of the infra-occlusion of tooth L?
 - Inadequate space between teeth K and M
 - Supra-eruption of Tooth H
 - Previous finger-sucking habit
 - Ankylosis of tooth L
- Which of the following represents the greatest concern when extracting tooth L?
 - Root fracture of tooth L
 - Injury to the succedaneous tooth
 - Fracture of the adjacent tooth
 - Fracture of the mandible
- Which of the following analgesics should be prescribed for postoperative pain?
 - Ibuprofen (Advil[®])
 - Naproxen sodium (Aleve[®])
 - Acetaminophen (Tylenol[®])
 - Diflunisal (Dolobid[®])
 - Propoxyphene (Darvon[®])
- Which of the following best describes the reaction of the pulp in tooth I to the distal caries?
 - Internal resorption
 - Pulp stone formation
 - Pulpal calcification
 - Production of reparative dentin
 - Necrosis
- Removal of caries in tooth S results in pulpal exposure. Which of the following represents the best treatment option for this tooth?
 - Extraction
 - Pulpectomy
 - Direct pulp cap
 - Pulpotomy
- Which of the following represents the most appropriate treatment for tooth A?
 - Stainless steel crown
 - Mesio-occlusal amalgam
 - Mesio-occlusal glass ionomer
 - Mesio-occlusal dentin-bonded composite
 - Extraction

Case B #'s 15 - 25

11. The dentist decides to extract tooth B. Which of the following represents the most appropriate approach to space maintenance?
- A. Band and loop
 - B. Removable Hawley appliance
 - C. Removable Hawley with denture tooth
 - D. No space maintenance is required.
12. Based on the Mixed Dentition Space Analysis, what degree of arch discrepancy is predicted in the mandible when the patient achieves full permanent dentition?
- A. No crowding
 - B. Mild crowding
 - C. Severe crowding
 - D. Mild spacing
 - E. Severe spacing
13. Which of the following represents the orthodontic management of choice after restorative treatment is complete?
- A. Extraction of primary canines
 - B. Fixed appliance orthodontics
 - C. Observation through the mixed dentition
 - D. Interproximal reduction to create space
 - E. Expansion of the maxilla with a rapid palatal expander
14. Which of the following represents the primary reason for the inclination of the permanent maxillary second molars?
- A. Insufficient bony development in the maxillary tuberosity
 - B. Eruption force from the first molar
 - C. Decay in the primary dentition
 - D. Incisor crowding
 - E. Normal eruption
15. To ensure adequate informed consent from this patient for the removal of the impacted teeth, the dentist should discuss each of the following EXCEPT one. Which one is the EXCEPTION?
- A. Alternative possible treatments
 - B. Dentist's relevant training and experience
 - C. Approximate total cost of treatment
 - D. Probable cause of impactions
 - E. Approximate length of treatment time
16. The development, impaction and alignment of teeth in this patient are most indicative of
- A. maxillary hypoplasia.
 - B. cleidocranial dysplasia.
 - C. regional odontodysplasia.
 - D. resolved hypothyroidism.
 - E. hypoplastic amelogenesis imperfecta.
17. Which of the following is the most likely periodontal diagnosis for this patient?
- A. Chronic periodontitis
 - B. Aggressive periodontitis
 - C. Plaque-induced gingivitis
 - D. Necrotizing ulcerative gingivitis
18. Following orthognathic surgery, what is the most appropriate esthetic treatment for teeth #8 and #9?
- A. All-ceramic crowns
 - B. Incisal recontouring
 - C. Lab processed veneers
 - D. Incisal composite resin restorations
 - E. Porcelain fused-to-metal crowns
19. This patient's teeth #5 and #6 are impacted, and the teeth are unlikely to erupt at this time.

This case presents a classic example of primary failure of eruption.

- A. Both statements are true.
- B. Both statements are false.
- C. The first statement is true, the second is false.
- D. The first statement is false, the second is true.

20. Impacted teeth #5 and #6 can be easily exposed surgically, and brought into occlusion with orthodontic treatment.

Maxillary impacted canines are generally extracted via a palatal surgical flap since they are usually found on the palatal side.

- A. Both statements are true.
 - B. Both statements are false.
 - C. The first statement is true, the second is false.
 - D. The first statement is false, the second is true.
21. Which of the following is the most likely contributing factor in the angular bone defect on the distal surface of tooth #12?
- A. Calculus
 - B. Cracked tooth
 - C. Occlusal trauma
 - D. Amalgam overhang
 - E. Foreign body
22. Orthodontic therapy precedes orthognathic surgery in treating this patient's malocclusion.
- Orthognathic surgery to correct this malocclusion can be either a LeFort I advancement osteotomy and/or a bilateral sagittal ramus osteotomy of the mandible.
- A. Both statements are true.
 - B. Both statements are false.
 - C. The first statement is true, the second is false.
 - D. The first statement is false, the second is true.
23. Which of the following is the most appropriate treatment for cervical abrasion on teeth #21 and #22?
- A. Class V amalgams
 - B. Class V compomers
 - C. Class V composite resins
 - D. Use of desensitizing toothpaste

24. The treatment with the best prognosis for the edentulous area #5 and #6 is

- A. four unit fixed partial denture going from teeth #4 to #7.
- B. extraction of impacted teeth with the placement of two implants and implant crowns.
- C. acid-etched retained fixed partial denture with wings on teeth #4, #7 and #8.
- D. a removable partial denture.
- E. no treatment.

25. In light of the alveolar bone contour, what is the most appropriate treatment for teeth #12 and #13?

- A. Periodontal flap surgery and recontour amalgams.
- B. Extraction of tooth #12 and immediate implant placement.
- C. Porcelain fused-to-metal crowns for teeth #12 and #13.
- D. Laboratory processed composite inlays for teeth #12 and #13.
- E. Scaling and root planing.

**NATIONAL BOARD PART II
RELEASED ITEM KEY
RELEASED ITEMS 1-100**

1	D	26	D	51	C	76	E
2	D	27	C	52	E	77	B
3	D	28	B	53	E	78	C
4	E	29	E	54	D	79	D
5	D	30	A	55	A	80	E
6	E	31	B	56	D	81	B
7	A	32	E	57	B	82	D
8	A	33	E	58	A	83	D
9	D	34	C	59	D	84	B
10	B	35	B	60	B	85	D
11	A	36	B	61	D	86	C
12	D	37	A	62	B	87	D
13	C	38	C	63	C	88	B
14	B	39	C	64	C	89	E
15	A	40	E	65	B	90	D
16	D	41	B	66	A	91	C
17	B	42	C	67	C	92	A
18	B	43	A	68	E	93	B
19	D	44	C	69	D	94	C
20	C	45	A	70	B	95	C
21	B	46	C	71	D	96	B
22	E	47	C	72	D	97	B
23	E	48	A	73	A	98	A
24	D	49	A	74	E	99	B
25	A	50	B	75	A	100	A

The above key may be used to determine correct and incorrect answers; however, for this item set, it is not possible to convert a raw score number correct to a standard score or associated pass/fail status.

**NATIONAL BOARD PART II
RELEASED ITEM KEY
RELEASED ITEMS 101-200**

101	C	126	D	151	B	176	C
102	D	127	D	152	B	177	B
103	A	128	B	153	C	178	E
104	A	129	B	154	C	179	B
105	A	130	D	155	C	180	B
106	D	131	A	156	C	181	D
107	B	132	B	157	E	182	C
108	D	133	E	158	D	183	D
109	C	134	B	159	C	184	D
110	A	135	B	160	B	185	D
111	C	136	C	161	B	186	D
112	C	137	D	162	B	186	D
113	B	138	C	163	B	187	D
114	D	139	A	164	C	188	D
115	A	140	E	165	C	189	B
116	B	141	B	166	B	190	B
117	C	142	B	167	C	191	A
118	C	143	E	168	A	192	B
119	E	144	B	169	A	193	A
120	B	145	B	170	A	194	D
121	D	146	E	171	B	195	B
122	D	147	D	172	C	196	C
123	A	148	A	173	B	197	A
124	C	149	A	174	A	198	B
125	D	150	B	175	C	199	D
						200	A

**NATIONAL BOARD PART II
RELEASED ITEM KEY
RELEASED ITEMS 201-300**

201	A	226	D	251	D	276	A
202	A	227	A	252	B	277	A
203	C	228	A	253	B	278	B
204	B	229	E	254	B	279	C
205	E	230	A	255	D	280	A
206	C	231	C	256	C	281	A
207	D	232	D	257	B	282	D
208	C	233	E	258	A	283	A
209	C	234	A	259	E	284	D
210	C	235	D	260	D	285	C
211	A	236	C	261	D	286	C
212	C	237	B	262	E	287	A
213	D	238	E	263	B	288	B
214	A	239	B	264	E	289	A
215	B	240	A	265	B	290	A
216	E	241	B	266	A	291	C
217	C	242	D	267	A	292	B
218	C	243	D	268	A	293	A
219	B	244	C	269	C	294	A
220	A	245	E	270	E	295	E
221	D	246	E	271	E	296	D
222	D	247	A	272	D	297	C
223	A	248	B	273	C	298	C
224	D	249	C	274	B	299	A
225	E	250	C	275	A	300	A

**NATIONAL BOARD PART II
RELEASED CASE ITEM KEY
RELEASED ITEMS 1-25**

CASE A

1	C
2	D
3	E
4	E
5	D
6	B
7	C
8	D
9	D
10	A
11	A
12	B
13	C
14	E

CASE B

15	D
16	A
17	A
18	C
19	C
20	D
21	D
22	A
23	B
24	D
25	C

National Board Part II

RELEASED BOOKLET OF CASES

Many of the radiographs and clinical photographs used in this Examination have been cropped, reduced, or enlarged for the purpose of enhancing the clarity of the structures or the lesions that they represent.

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Case A

SYNOPSIS OF PATIENT HISTORY

Age 7
 Sex M
 Height 4'5"
 Weight 70 lb

VITAL SIGNS

Blood pressure 90/60
 Pulse rate 85
 Respiration rate 15

CASE A

1. Under Care of Physician
 Yes No Condition: Asthma

2. Hospitalized within the last 5 years
 Yes No Reason:

3. Has or had the following conditions:
 Asthma

4. Current medications:
 Proventil® inhaler prn

5. Smokes or uses tobacco products
 Yes No

6. Is pregnant
 Yes No N/A

MEDICAL HISTORY: The patient has had sporadic episodes of asthma brought on by exertion and stress. The patient is sensitive to aspirin.

DENTAL HISTORY: The patient reports that previous dental treatment "hurt a lot." He seems apprehensive about this examination. His mother reports that he frequently snacks on high-sugar foods and does not brush his teeth regularly.

The patient lives in a community with a water fluoride concentration of 0.2 ppm

SOCIAL HISTORY: The patient lives with his divorced mother. He has an older brother and an older sister who have good dental habits and good oral health. He does well in school.

CHIEF COMPLAINT: "One of my lower right back teeth hurts when I eat."

ADULT CLINICAL EXAMINATION

CASE A

CURRENT ORAL HYGIENE STATUS





Poor

SUPPLEMENTAL ORAL EXAMINATION FINDINGS:

Probing depths do not exceed 3 mm but the gingival tissue adjacent to the lower incisors bleeds upon probing.

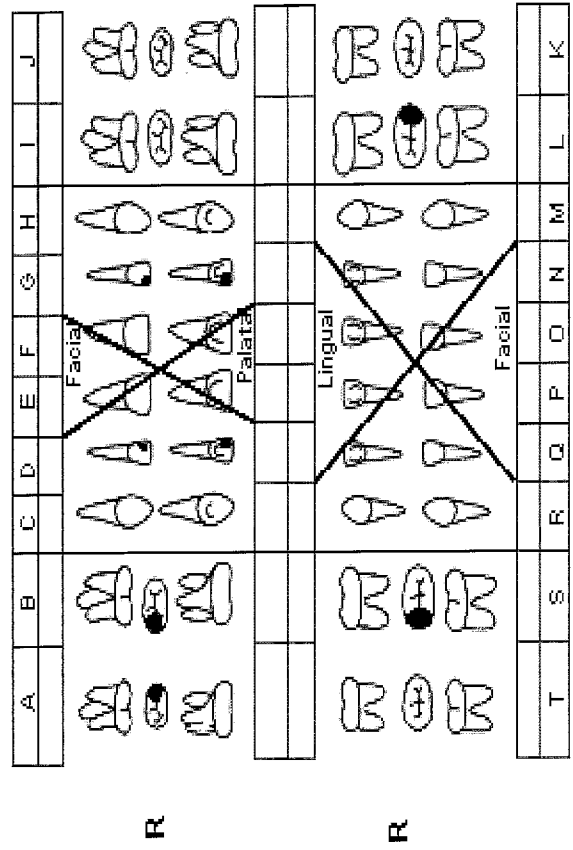
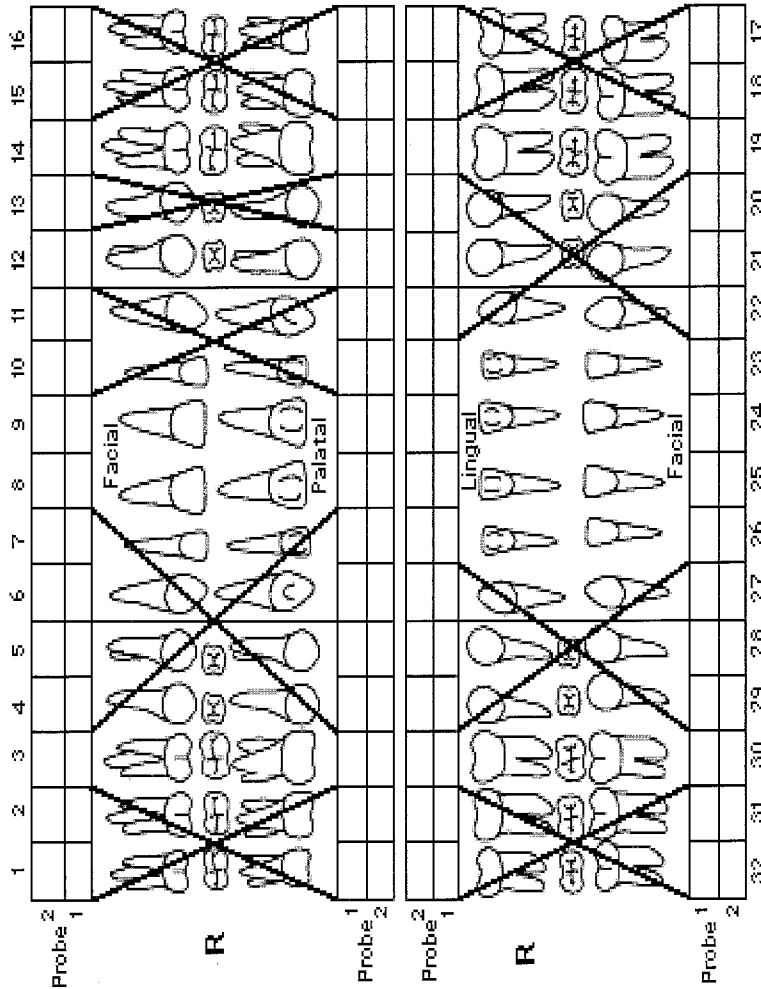
Mixed Dentition Space Analysis Findings:

Lower incisor cumulative width = 22.0 mm
 Predicted sum of mandibular canine and premolar widths at 75% level = 22.6 mm
 Computed amount of arch space available = 63.0mm

-  Clinically visible carious lesion
-  Clinically missing tooth
-  Furcation
-  "Through and through" furcation

Probe 1: initial probing depth

Probe 2: probing depth 1 month after scaling and root planing



CASE A



L



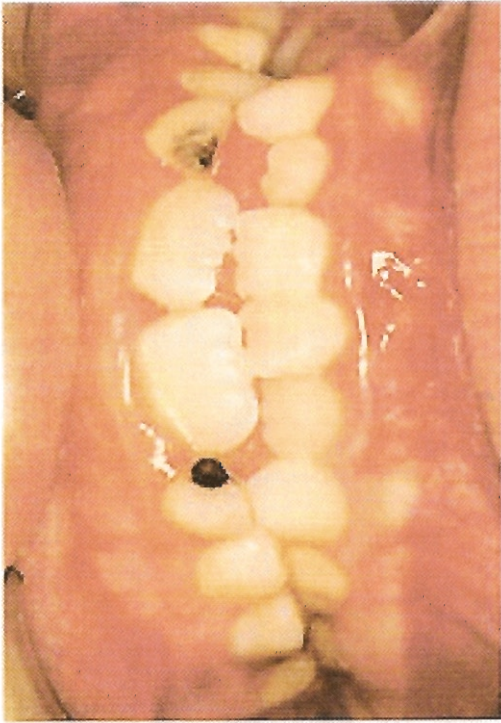
R



L

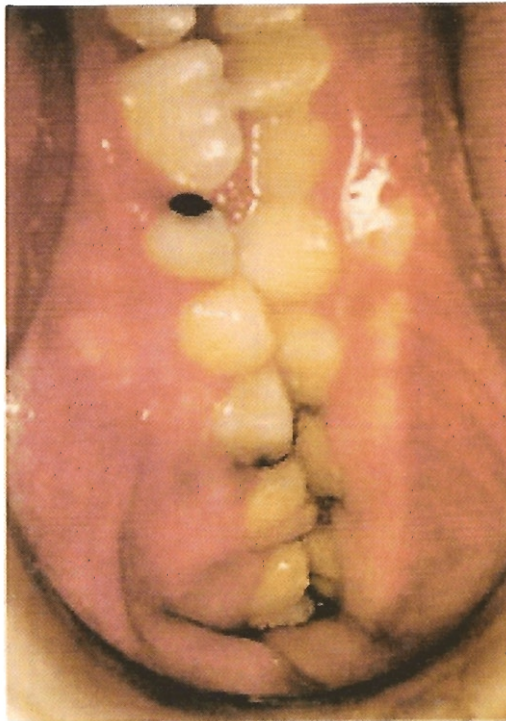
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CASE A

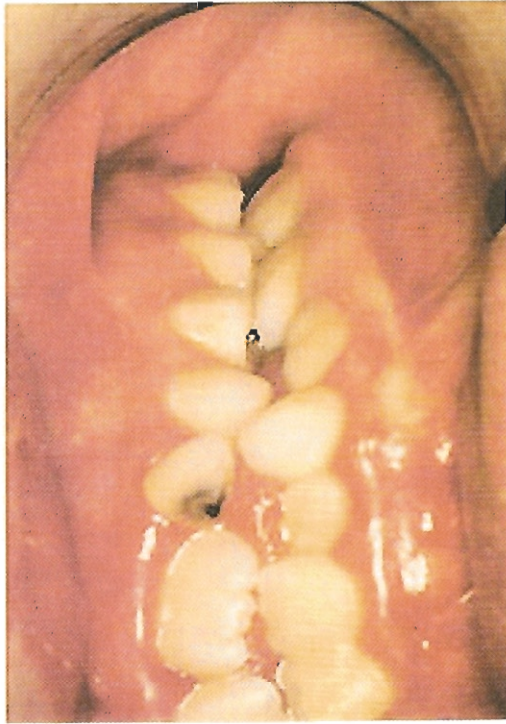


R

L



RIGHT SIDE



LEFT SIDE

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CASE A



L

R



L

R

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CASE B

SYNOPSIS OF PATIENT HISTORY

Age 32
 Sex M
 Height 5'10"
 Weight 170 lbs

VITAL SIGNS

Blood pressure 115/80
 Pulse rate 70
 Respiration rate 16

CASE B

1. Under Care of Physician Condition:

Yes No

MEDICAL HISTORY: The patient is generally healthy.

2. Hospitalized within the last 5 years

Yes No Reason:

3. Has or had the following conditions:

DENTAL HISTORY: The patient received regular dental care as a child but has not seen a dentist for several years.

4. Current medications:

None.

SOCIAL HISTORY: Patient is married and has 2 children. He is a public transit bus driver.

5. Smokes or uses tobacco products

Yes No

6. Is pregnant

Yes No N/A

CHIEF COMPLAINT: "I've always hated the way my teeth fit together and that big gap on the upper right side."

CASE B

ADULT CLINICAL EXAMINATION

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Probe 2																
Probe 1			343	323			533	323	323	333	323	346	644	333	433	

R

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Probe 1			333	323				323	212	232	323	313	356	643	313	323
Probe 2																

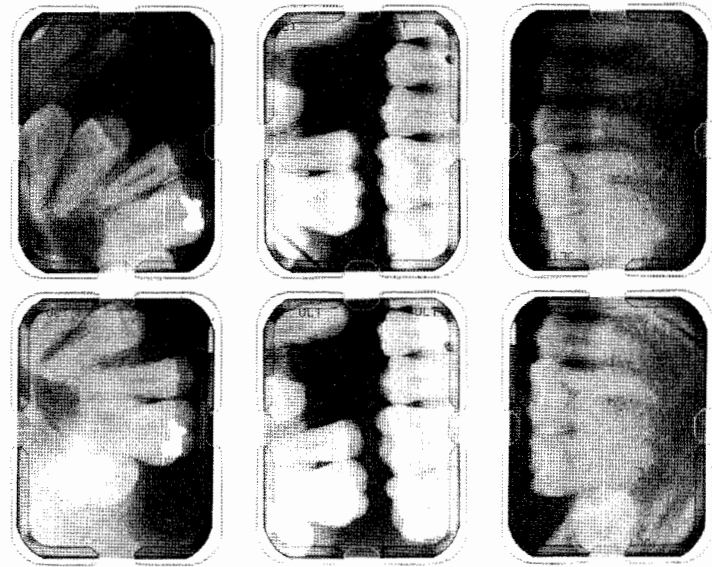
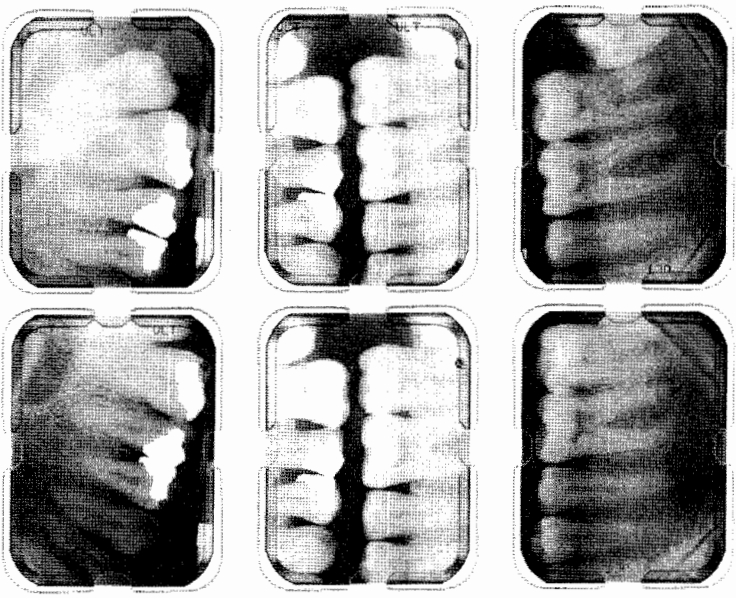
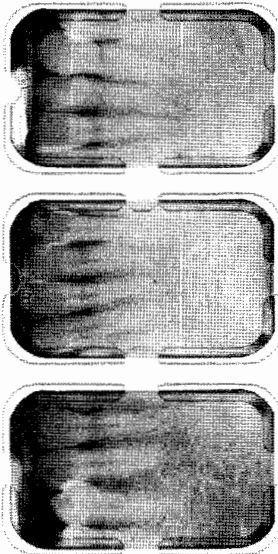
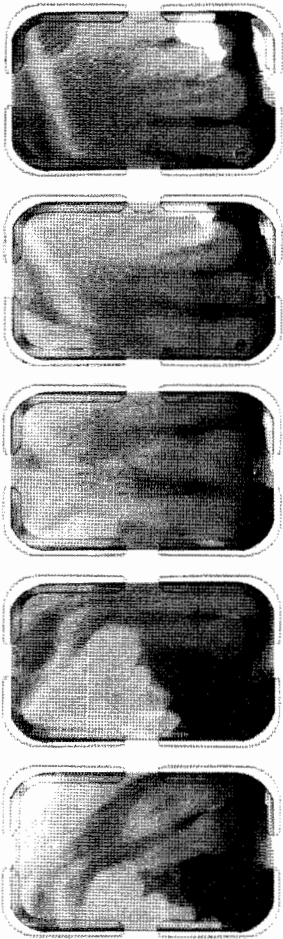
R

Current Oral Hygiene Status
Good.

Supplemental Oral Examination Findings

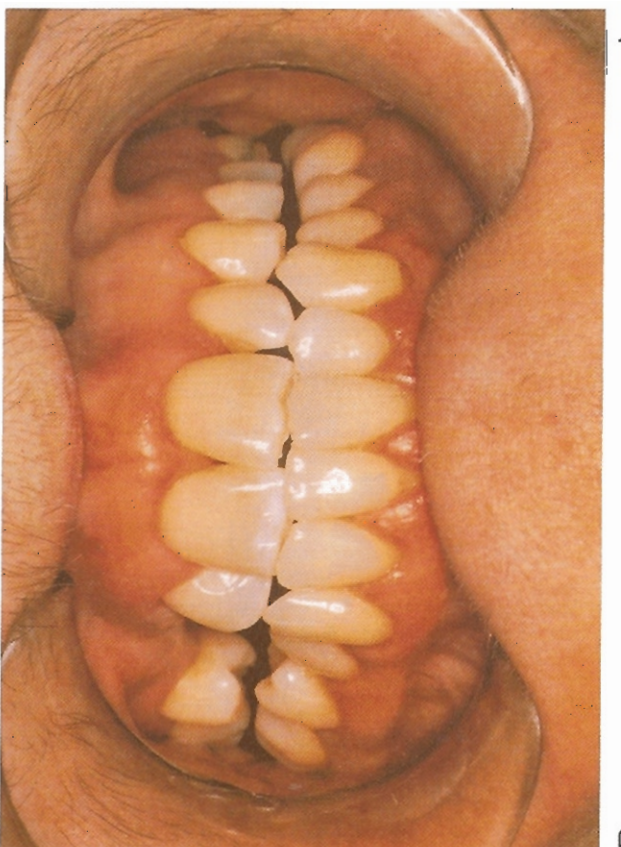
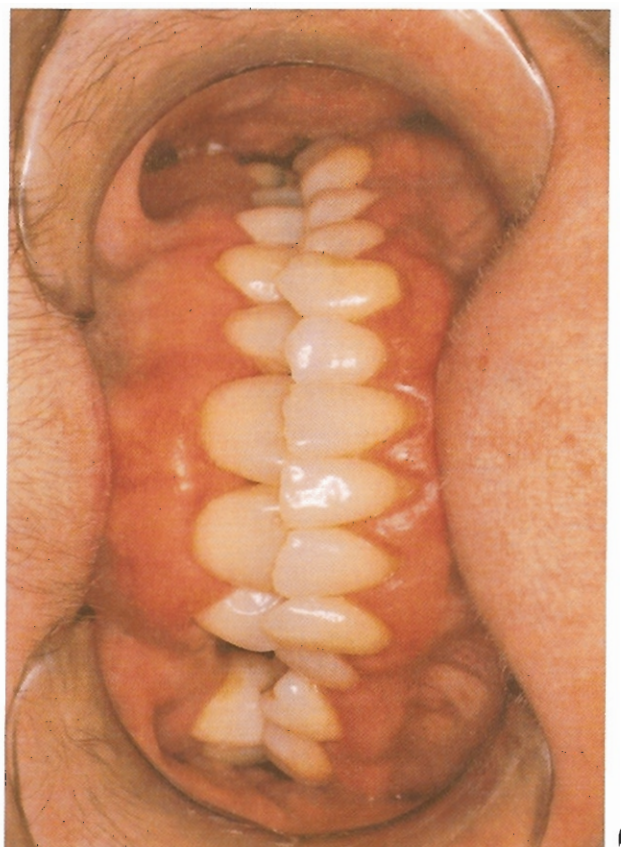
	Clinically visible carious lesion
	Clinically missing tooth
	Furcation
	"Through and through" furcation
Probe 1:	initial probing depth
Probe 2:	probing depth 1 month after scaling and root planing

CASE B

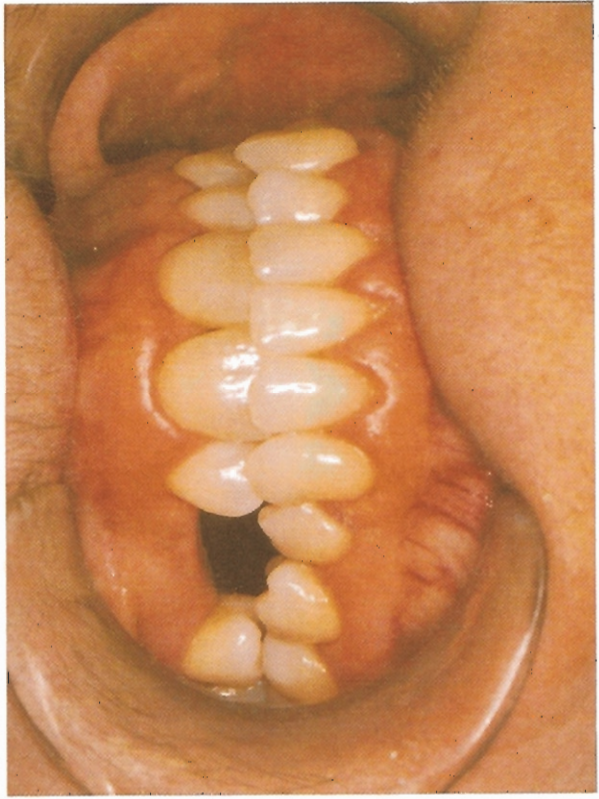


R L R L R L

CASE B



CASE B



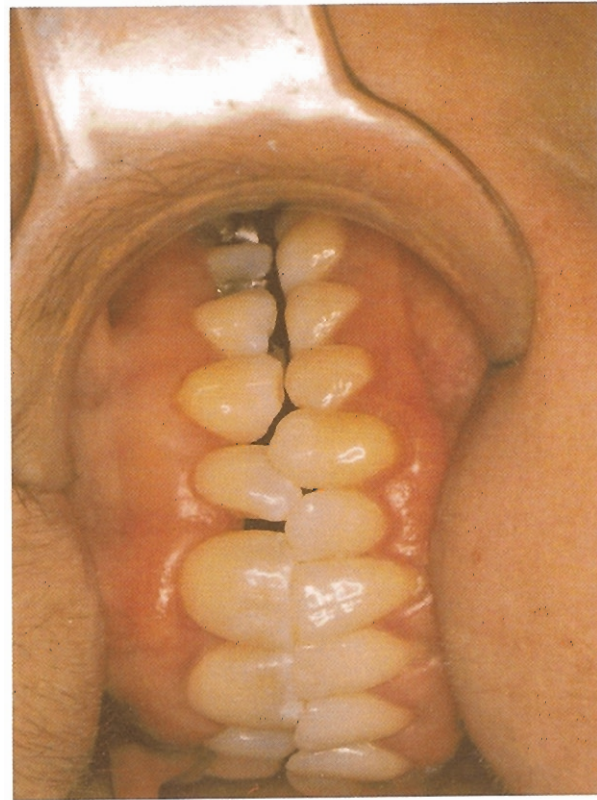
L

R



L

R



L

R

END OF CASE B

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