Board Exam Desk

Dentistry Reviewer

Dentistry Licensure Examination | PRC | 120 original questions

2026 Edition | Updated November 2026

Original board-style practice questions with an answer key.

Practice questions

General and Oral Anatomy and Physiology

1. After excision of a mass in the right submandibular region, the patient's tongue deviates to the right when protruded. Which nerve was most likely injured?

A. Right hypoglossal nerve
B. Right lingual nerve
C. Left hypoglossal nerve
D. Right glossopharyngeal nerve

2. Which muscle mainly pulls the condyle forward onto the articular eminence during protrusion of the mandible?

A. Medial pterygoid
B. Posterior fibers of temporalis
C. Deep head of masseter
D. Lateral pterygoid

3. A patient notices a small papilla on the buccal mucosa opposite the maxillary second molar that releases watery fluid when the cheek is massaged. Which gland drains through this opening?

A. Parotid gland
B. Submandibular gland
C. Sublingual gland
D. Buccal minor salivary glands only

4. A patient has lost taste on the anterior two-thirds of the tongue but general sensation there is normal. The damaged taste fibers travel in which nerve branch?

A. Lingual branch of the glossopharyngeal nerve
B. Hypoglossal nerve
C. Chorda tympani of the facial nerve
D. Superior laryngeal branch of the vagus

5. The cusp of Carabelli, when present, is found on which cusp of the maxillary first molar?

A. Distolingual cusp
B. Mesiolingual cusp
C. Mesiobuccal cusp
D. Distobuccal cusp

6. Which permanent premolar typically has a large, pointed buccal cusp and a small, often nonfunctional lingual cusp?

A. Mandibular first premolar
B. Mandibular second premolar
C. Maxillary first premolar
D. Maxillary second premolar

7. Under resting (unstimulated) conditions, which gland contributes the largest share of whole saliva?

A. Parotid gland
B. Sublingual gland
C. Von Ebner glands
D. Submandibular gland

8. For a conventional inferior alveolar nerve block, the needle penetrates the mucosa just lateral to which soft-tissue landmark?

A. Anterior tonsillar pillar
B. Retromolar pad
C. Pterygomandibular raphe
D. External oblique ridge

9. Which primary tooth most closely resembles the permanent mandibular first molar in crown form?

A. Primary mandibular first molar
B. Primary maxillary second molar
C. Primary maxillary first molar
D. Primary mandibular second molar

10. When the posterior pharyngeal wall is touched, the sensory (afferent) limb of the resulting gag reflex is carried mainly by which nerve?

A. Vagus nerve
B. Mandibular division of the trigeminal
C. Glossopharyngeal nerve
D. Facial nerve

Oral Histology and Embryology

11. Odontoblasts that form the dentin of a developing tooth differentiate from cells of which structure?

A. Dental papilla
B. Dental follicle
C. Stellate reticulum
D. Outer enamel epithelium

12. Cementum, periodontal ligament, and alveolar bone proper are all derived from which developmental structure?

A. Dental papilla
B. Enamel organ
C. Dental lamina
D. Dental follicle

13. Epithelial cell clusters remaining in the adult periodontal ligament, which can proliferate to form a radicular cyst, are called

A. Epithelial rests of Malassez
B. Rests of Serres
C. Reduced enamel epithelium
D. Epstein pearls

14. A unilateral cleft of the upper lip results from failure of fusion between which embryonic processes?

A. Lateral nasal process and maxillary process
B. Both mandibular processes
C. Medial nasal process and maxillary process
D. Palatal shelves of the maxillary processes

15. In sections of primary teeth, a pronounced incremental line separating enamel formed before and after birth is known as the

A. Neonatal line
B. Line of Owen
C. Perikymata
D. Hunter-Schreger band

16. Beneath a slowly advancing carious lesion, the pulp deposits irregular dentin with few, disorganized tubules. This dentin is classified as

A. Primary dentin
B. Secondary dentin
C. Tertiary dentin
D. Mantle dentin

17. On a fully formed root, cellular cementum is usually found predominantly in which region?

A. Cervical third near the CEJ
B. Apical third and furcation areas
C. Only on the coronal enamel
D. Evenly over the entire root surface

18. The junctional epithelium attaches to the tooth surface by means of

A. Desmosomes and keratin
B. Sharpey's fibers inserted into enamel
C. Hemidesmosomes and an internal basal lamina
D. Tight junctions with odontoblasts

19. Which cell type is the most numerous in healthy dental pulp?

A. Fibroblasts
B. Odontoblasts
C. Macrophages
D. Undifferentiated mesenchymal cells

20. Which lingual papillae are the most numerous yet characteristically lack taste buds?

A. Fungiform papillae
B. Filiform papillae
C. Circumvallate papillae
D. Foliate papillae

General and Oral Pathology

21. A 35-year-old has painless expansion of the posterior mandible. Radiographs show a multilocular soap-bubble radiolucency with root resorption of adjacent molars. Which lesion is most likely?

A. Radicular cyst
B. Ameloblastoma
C. Stafne bone defect
D. Condensing osteitis

22. A 20-year-old has multiple jaw cysts lined by parakeratinized epithelium, palmar pits, and early basal cell carcinomas. Which condition is suggested?

A. Cleidocranial dysplasia
B. Peutz-Jeghers syndrome
C. Nevoid basal cell carcinoma syndrome
D. Gardner syndrome

23. A well-defined unilocular radiolucency surrounds the crown of an impacted mandibular third molar and attaches at the cementoenamel junction. The most likely diagnosis is

A. Lateral periodontal cyst
B. Residual cyst
C. Dentigerous cyst
D. Traumatic bone cyst

24. Which oral mucosal lesion, at biopsy, most often shows severe dysplasia or invasive carcinoma?

A. Homogeneous leukoplakia
B. Erythroplakia
C. Frictional keratosis
D. Leukoedema

25. Within the oral cavity proper, which site is most commonly affected by squamous cell carcinoma?

A. Hard palate
B. Dorsum of the tongue
C. Posterior lateral and ventral tongue
D. Attached gingiva of the maxilla

26. Bilateral lacy white striae on the buccal mucosa show, on biopsy, a band-like subepithelial lymphocytic infiltrate and saw-tooth rete ridges. The diagnosis is

A. Oral lichen planus
B. Pemphigus vulgaris
C. Candidal leukoplakia
D. White sponge nevus

27. A teenager has a bluish, fluctuant swelling on the lower labial mucosa that appeared after biting the lip and has burst and recurred. What is it most likely?

A. Mucocele
B. Ranula
C. Hemangioma
D. Fibroma

28. The most common benign salivary gland tumor, usually found in the parotid, is the

A. Warthin tumor
B. Canalicular adenoma
C. Basal cell adenoma
D. Pleomorphic adenoma

29. A middle-aged patient has fragile oral blisters that leave ragged erosions, and gentle rubbing of normal mucosa causes sloughing. Biopsy shows suprabasal acantholysis. Which disease fits?

A. Mucous membrane pemphigoid
B. Pemphigus vulgaris
C. Erythema multiforme
D. Bullous lichen planus

30. A 3-year-old has fever, irritability, and many small vesicles and ulcers on the gingiva, tongue, and lips with generalized fiery red gingiva. The most likely cause is

A. Recurrent aphthous stomatitis
B. Hand, foot and mouth disease limited to the palate
C. Acute necrotizing ulcerative gingivitis
D. Primary herpes simplex virus infection

Dental Pharmacology and Anesthesiology

31. How many milligrams of lidocaine are delivered by two 1.8 mL cartridges of 2% lidocaine?

A. 36 mg
B. 40 mg
C. 144 mg
D. 72 mg

32. A cardiac patient's epinephrine dose is limited to 0.04 mg per appointment. Using 1.8 mL cartridges with 1:100,000 epinephrine, what is the maximum number of full cartridges?

A. 1 cartridge
B. 4 cartridges
C. 2 cartridges
D. 6 cartridges

33. Articaine differs from other amide local anesthetics because it

A. Is metabolized only by the kidneys without change
B. Has a thiophene ring and an ester group allowing plasma hydrolysis
C. Contains no amide linkage in its structure
D. Cannot be combined with a vasoconstrictor

34. A patient reports an allergy to para-aminobenzoic acid (PABA). Which topical anesthetic should be avoided?

A. Benzocaine
B. Lidocaine
C. Prilocaine
D. Mepivacaine

35. Excessive doses of which local anesthetic are most associated with methemoglobinemia?

A. Mepivacaine
B. Prilocaine
C. Bupivacaine
D. Lidocaine

36. For an adult needing antibiotic prophylaxis before an invasive dental procedure and not allergic to penicillin, the standard oral regimen is

A. Amoxicillin 250 mg three times daily for a week after
B. Metronidazole 500 mg the evening before
C. Amoxicillin 2 g taken 30 to 60 minutes before the procedure
D. Tetracycline 1 g immediately after the procedure

37. Ibuprofen relieves postoperative dental pain chiefly by

A. Binding mu opioid receptors in the spinal cord
B. Blocking voltage-gated sodium channels in nerves
C. Inhibiting cyclooxygenase and reducing prostaglandin synthesis
D. Antagonizing histamine H1 receptors

38. Tetracycline antibiotics are generally avoided in pregnant women and young children mainly because they

A. Cause gingival overgrowth in developing gums
B. Arrest eruption of the primary dentition
C. Produce enamel pitting through fluoride binding
D. Bind to calcifying teeth and cause intrinsic discoloration

39. Before extracting a molar in a patient taking warfarin, which laboratory value best indicates the level of anticoagulation?

A. Platelet count
B. Bleeding time
C. International normalized ratio
D. Hemoglobin level

40. Using Clark's rule, what dose should a child weighing 45 lb receive if the adult dose is 500 mg?

A. 100 mg
B. 150 mg
C. 225 mg
D. 300 mg

Oral Surgery

41. Three days after a mandibular molar extraction, a patient has severe radiating pain, a foul odor, and an empty socket with exposed bone. Appropriate management is

A. Gentle irrigation and placement of a medicated dressing
B. Immediate re-curettage to induce heavy bleeding
C. Incision and drainage of the buccal vestibule
D. Prescribing antibiotics alone without local care

42. Which universal extraction forceps is designed for mandibular incisors, canines, and premolars?

A. No. 150
B. No. 151
C. No. 88R
D. No. 23 cowhorn

43. After extracting a maxillary first molar, a 1 to 2 mm oroantral communication is detected. Besides promoting a clot, the patient should be told to

A. Avoid blowing the nose and sneeze with the mouth open
B. Rinse forcefully every hour
C. Use a straw for all liquids
D. Perform nasal irrigation with pressure daily

44. The classification that describes an impacted third molar as mesioangular, distoangular, vertical, or horizontal is

A. Pell and Gregory classification
B. Kennedy classification
C. Winter's classification
D. Le Fort classification

45. For impacted mandibular third molars, which angulation is generally considered the most difficult to remove?

A. Mesioangular
B. Vertical
C. Buccoversion with full eruption
D. Distoangular

46. A patient with an infected mandibular molar develops brawny bilateral swelling of the submandibular, sublingual, and submental spaces with an elevated tongue. The priority concern is

A. Airway obstruction
B. Facial nerve palsy
C. Trismus from temporalis spasm
D. Cavernous sinus thrombosis via the angular vein

47. A horizontal fracture of the maxilla above the root apices that allows the tooth-bearing segment and palate to move freely is classified as

A. Le Fort II
B. Le Fort I
C. Le Fort III
D. Zygomaticomaxillary complex fracture

48. Which clinical finding is the main indication that an odontogenic swelling is ready for incision and drainage?

A. Mild erythema only
B. Low-grade fever without swelling
C. Tooth tender to percussion
D. Fluctuance on palpation

49. When designing a mucoperiosteal flap, the base should be

A. Narrower than the free margin for easier closure
B. Placed directly over the bony defect
C. Positioned within the attached gingiva only
D. Wider than the free margin to preserve blood supply

50. A patient calls 2 hours after an extraction because the socket is oozing. The first measure the dentist should advise is

A. Rinsing vigorously with warm salt water
B. Taking aspirin to relieve the discomfort
C. Applying a warm compress to the cheek
D. Biting firmly on a folded gauze pad over the socket for about 30 minutes

Restorative Dentistry and Dental Materials

51. A carious lesion is confined to the cervical third of the buccal surface of a mandibular premolar. Under G.V. Black's system it is

A. Class I
B. Class III
C. Class VI
D. Class V

52. A lesion on the proximal surface of a maxillary central incisor that includes the incisal angle is classified as

A. Class IV
B. Class III
C. Class II
D. Class V

53. High-copper dental amalgams have improved corrosion resistance mainly because they

A. Contain no mercury after setting
B. Eliminate or greatly reduce the tin-mercury gamma-2 phase
C. Increase the silver-mercury gamma-1 phase only
D. Have a higher zinc content

54. In a deep posterior composite preparation, placing the resin in small increments mainly helps to

A. Increase the filler content of the resin
B. Reduce polymerization shrinkage stress
C. Eliminate the need for a bonding agent
D. Raise the coefficient of thermal expansion

55. In the total-etch technique, enamel is typically etched with phosphoric acid at about what concentration?

A. 5 to 10 percent
B. 35 to 37 percent
C. 50 to 60 percent
D. 85 to 90 percent

56. Glass ionomer cement adheres chemically to tooth structure through

A. Micromechanical resin tags only
B. Covalent bonds with collagen
C. Ionic bonding of carboxyl groups with calcium
D. Mercury-silver alloy formation

57. For dies used in fabricating cast crowns, the most suitable gypsum product is

A. Type IV high-strength, low-expansion die stone
B. Type I impression plaster
C. Type II model plaster
D. Type III dental stone for diagnostic casts

58. An alginate impression left on the bench for an hour before pouring will most likely be inaccurate because of

A. Continued polymerization producing expansion
B. Absorption of gypsum into the impression
C. Syneresis and water loss causing shrinkage
D. Release of hydrogen gas

59. The aspect of cavity preparation that prevents a restoration from being displaced by tipping or lifting forces is

A. Resistance form
B. Convenience form
C. Outline form
D. Retention form

60. Zinc phosphate cement is mixed on a cool glass slab in small increments over a wide area mainly to

A. Dissipate the heat of the exothermic reaction and extend working time
B. Increase the acidity of the final cement
C. Speed up setting for faster cementation
D. Prevent moisture from the slab entering the mix

Prosthodontics

61. A mandibular arch has natural teeth from the right first premolar to the left first premolar, with all molars and second premolars missing on both sides. The Kennedy classification is

A. Class II
B. Class III
C. Class I
D. Class IV

62. According to Applegate's rules, which Kennedy class cannot have modification spaces?

A. Class I
B. Class II
C. Class III
D. Class IV

63. Ante's law states that for a fixed partial denture, the

A. Crown length of each abutment must be twice its root length
B. Pontic width must equal the combined abutment width
C. Root surface area of the abutments should equal or exceed that of the teeth replaced
D. Span should never exceed one missing tooth

64. For an abutment tooth, what crown-to-root ratio is considered the minimum acceptable under normal circumstances?

A. 2:1
B. 1:1
C. 3:1
D. 1:3 maximum

65. A patient's vertical dimension at rest measures 70 mm and the freeway space is 3 mm. What is the vertical dimension of occlusion?

A. 73 mm
B. 64 mm
C. 70 mm
D. 67 mm

66. The posterior palatal seal of a maxillary complete denture is placed along the

A. Incisive papilla region
B. Vibrating line between the hard and soft palate
C. Midpalatal raphe over the torus
D. Buccal vestibule near the second molar

67. An elderly patient who wears an upper denture continuously has diffuse erythema of the palatal mucosa confined to the denture-bearing area. The most likely contributing organism is

A. Candida albicans
B. Streptococcus mutans
C. Treponema denticola
D. Staphylococcus epidermidis

68. For a mandibular removable partial denture where the floor of the mouth lies only 5 mm below the lingual gingival margins, the preferred major connector is a

A. Lingual bar
B. Lingual plate
C. Palatal strap
D. Labial bar

69. The primary purpose of a rest on a removable partial denture is to

A. Provide vertical support and direct forces along the abutment's long axis
B. Provide esthetic contour to the abutment
C. Engage undercuts for retention
D. Act as the major connector

70. When restoring an endodontically treated tooth, a ferrule of about 1.5 to 2 mm of sound tooth structure encircled by the crown mainly

A. Increases fracture resistance of the tooth
B. Improves the seal of the root canal filling
C. Eliminates the need for a core
D. Increases the bond strength of the post cement

Orthodontics and Pediatric Dentistry

71. A 12-year-old has a Class II molar relationship, retroclined maxillary central incisors, flared lateral incisors, and a deep overbite. The classification is

A. Class II division 1
B. Class III
C. Class I with crowding
D. Class II division 2

72. The difference in mesiodistal width between the primary canine and primary molars and their permanent successors is called the

A. Primate space
B. Freeway space
C. Leeway space
D. Diastema

73. In the primary maxillary arch, the primate space is located between the

A. Canine and first molar
B. Lateral incisor and canine
C. Central and lateral incisors
D. First and second molars

74. A 6-year-old loses a primary mandibular first molar to caries on one side; the permanent first molar has erupted. The most appropriate appliance is a

A. Band and loop space maintainer
B. Lingual holding arch
C. Distal shoe appliance
D. Rapid palatal expander

75. In a primary molar, a carious pulp exposure shows bright red bleeding from the coronal pulp that stops within a few minutes after amputation. The appropriate treatment is

A. Pulpotomy
B. Extraction and space maintainer
C. Indirect pulp capping only
D. Pulpectomy with an apical plug

76. A parent calls 10 minutes after a 10-year-old knocked out a permanent maxillary central incisor; the tooth is intact and only slightly dirty. The best advice is to

A. Scrub the root clean and wrap it in dry tissue
B. Hold the tooth by the crown, rinse briefly, and replant it immediately
C. Store it in tap water and come in tomorrow
D. Discard it, since replantation rarely succeeds

77. A 3-year-old avulses a primary maxillary central incisor. The recommended management is

A. Replant and splint for two weeks
B. Replant after soaking in milk
C. Replant and start endodontic treatment
D. Do not replant the tooth

78. Which primary tooth is usually the first to erupt?

A. Maxillary central incisor
B. Mandibular central incisor
C. Mandibular first molar
D. Maxillary lateral incisor

79. Approximately how many ppm fluoride does a 5% sodium fluoride varnish contain?

A. 5,000 ppm
B. 12,300 ppm
C. 22,600 ppm
D. 50,000 ppm

80. With an anxious 5-year-old, the dentist names an instrument in simple words, demonstrates it on the child's finger, then uses it in the mouth. This technique is

A. Voice control
B. Tell-show-do
C. Protective stabilization
D. Aversive conditioning

Periodontics

81. On a mandibular molar, the probing depth is 6 mm and the gingival margin is 2 mm apical to the CEJ. What is the clinical attachment level?

A. 4 mm
B. 6 mm
C. 8 mm
D. 2 mm

82. A probing depth of 5 mm is recorded where the gingival margin lies 1 mm coronal to the CEJ. What is the clinical attachment level?

A. 5 mm
B. 6 mm
C. 1 mm
D. 4 mm

83. Which finding distinguishes periodontitis from plaque-induced gingivitis?

A. Bleeding on probing
B. Gingival redness and edema
C. Presence of supragingival plaque
D. Loss of clinical attachment

84. A probe passes completely through the furcation of a mandibular molar, but the opening remains covered by gingiva. In Glickman's classification this is

A. Grade I
B. Grade III
C. Grade II
D. Grade IV

85. A stressed college student who smokes has painful, bleeding gingiva, punched-out interdental papillae covered by gray pseudomembrane, and foul breath. The diagnosis is

A. Desquamative gingivitis
B. Necrotizing gingivitis
C. Plasma cell gingivitis
D. Chronic marginal gingivitis

86. A crown margin placed deep into the attachment apparatus causes persistent inflammation. The dimension violated, roughly 2 mm in height, is the

A. Supracrestal tissue attachment (biologic width)
B. Width of attached gingiva
C. Gingival sulcus depth
D. Mucogingival junction height

87. Which Gracey curette is designed for the distal surfaces of posterior teeth?

A. Gracey 13/14
B. Gracey 11/12
C. Gracey 1/2
D. Gracey 7/8

88. A 16-year-old has deep pockets limited to the first molars and incisors despite little plaque. Which bacterium is classically associated with this pattern?

A. Streptococcus sanguinis
B. Aggregatibacter actinomycetemcomitans
C. Actinomyces naeslundii
D. Lactobacillus casei

89. A hypertensive patient taking amlodipine has firm overgrowth of the interdental gingiva. The drug class responsible is

A. ACE inhibitors
B. Thiazide diuretics
C. Calcium channel blockers
D. Beta blockers

90. Which site is most commonly used as the donor tissue for a free gingival graft?

A. Buccal alveolar mucosa
B. Floor of the mouth
C. Dorsum of the tongue
D. Masticatory mucosa of the hard palate

Endodontics

91. A molar produces sharp pain to a cold test that lingers for about 30 seconds after the stimulus is removed, with no apical radiographic change. The pulpal diagnosis is

A. Reversible pulpitis
B. Pulp necrosis
C. Normal pulp
D. Symptomatic irreversible pulpitis

92. A tooth does not respond to cold or electric testing, is not tender, and shows a periapical radiolucency. The periapical diagnosis is

A. Symptomatic apical periodontitis
B. Acute apical abscess
C. Asymptomatic apical periodontitis
D. Condensing osteitis

93. The working length for root canal instrumentation is commonly set at about

A. 2 mm beyond the radiographic apex
B. Exactly at the CEJ
C. 0.5 to 1 mm short of the radiographic apex
D. Halfway along the root length

94. Calcium hydroxide is used as an intracanal medicament mainly because of its

A. High pH that is antibacterial
B. Ability to seal permanently as an obturating material
C. Strong anesthetic effect on periapical tissues
D. Radiolucency that aids diagnosis

95. During irrigation, a patient suddenly feels intense pain followed by rapid facial swelling and bruising. The most likely cause is

A. Allergy to gutta-percha
B. Fracture of a rotary file
C. Extrusion of sodium hypochlorite beyond the apex
D. Overdose of local anesthetic

96. Which canal is most frequently missed during root canal treatment of a maxillary first molar?

A. Palatal canal
B. Distobuccal canal
C. Distolingual canal
D. Second mesiobuccal canal (MB2)

97. The outline form of the endodontic access cavity in a maxillary central incisor is typically

A. Triangular, with the base toward the incisal edge
B. Oval and buccolingually elongated
C. Rhomboidal toward the distal
D. Circular at the cervical third

98. An ISO size 25 file with a 0.02 taper and 16 mm of cutting flutes has what diameter at the end of the flutes (D16)?

A. 0.27 mm
B. 0.41 mm
C. 0.57 mm
D. 0.82 mm

99. An 8-year-old fractures a permanent incisor with an immature open apex, exposing a vital pulp. Treatment aimed at preserving pulp vitality so the root can continue forming is

A. Apexification
B. Apexogenesis
C. Conventional pulpectomy and obturation
D. Extraction and space maintainer

100. A patient reports sharp pain on a molar specifically when releasing biting pressure, while radiographs are normal. Which condition is most suspected?

A. Chronic apical abscess
B. Cracked tooth
C. Internal resorption
D. Hypercementosis

Oral Diagnosis and Dental Radiology

101. A periapical exposure of 0.25 s is correct at a 20 cm source-to-image distance. What exposure time is needed at 40 cm to keep the same density?

A. 1.0 s
B. 0.5 s
C. 0.125 s
D. 2.0 s

102. Compared with the bisecting angle technique, the paralleling technique is preferred because it

A. Requires a shorter source-to-image distance
B. Produces less dimensional distortion
C. Needs no film holder
D. Always uses a smaller receptor

103. Two periapical images are taken; when the tube head is shifted mesially, an impacted canine also appears to move mesially. The canine lies

A. Buccal to the reference teeth
B. In the same plane as the roots
C. Inside the maxillary sinus
D. Lingual (palatal) to the reference teeth

104. Elongated images of teeth on a periapical radiograph using the bisecting technique result from

A. Excessive vertical angulation
B. Incorrect horizontal angulation
C. Too long an exposure time
D. Insufficient vertical angulation

105. A round radiolucency near the apex of a mandibular second premolar disappears from the apex when imaged at a different angle, and the tooth tests vital. It most likely represents

A. The mental foramen
B. A radicular cyst
C. The incisive canal
D. A lingual foramen

106. On a panoramic image, the occlusal plane forms an exaggerated upward curve like a smile and the lower incisors look blurred and short. The patient's head was most likely

A. Tipped chin-up
B. Rotated to the left
C. Positioned too far back
D. Tipped chin-down

107. When no barrier is available, an operator exposing an intraoral radiograph should stand

A. At least 6 feet away at 90 to 135 degrees to the primary beam
B. Directly behind the patient's head
C. In line with the primary beam
D. Within arm's reach holding the receptor

108. Pressing a glass slide on a red-purple lip lesion makes it blanch. This diagnostic procedure, which indicates a vascular lesion, is called

A. Exfoliative cytology
B. Transillumination
C. Diascopy
D. Toluidine blue staining

109. During extraoral examination, which lymph node characteristic is most suggestive of metastatic malignancy?

A. Soft, mobile, and tender
B. Hard, fixed, and nontender
C. Small, rubbery, and movable
D. Tender and enlarged during a sore throat

110. A middle-aged woman has small radiolucencies at the apices of several vital mandibular incisors, with no symptoms. The most likely diagnosis is

A. Multiple radicular cysts
B. Periapical abscesses
C. Periapical cemento-osseous dysplasia
D. Central giant cell granuloma

Community Dentistry, Jurisprudence and Ethics

111. The law that governs the practice of dentistry, dental hygiene, and dental technology in the Philippines is

A. Republic Act No. 9173
B. Republic Act No. 8981
C. Republic Act No. 10912
D. Republic Act No. 9484

112. A 12-year-old has 3 decayed teeth, 2 teeth extracted because of caries, and 4 filled teeth. What is the DMFT score?

A. 7
B. 5
C. 11
D. 9

113. In a school survey, 50 children have a combined DMFT of 135. What is the mean DMFT?

A. 1.35
B. 3.7
C. 5.0
D. 2.7

114. Of 400 children examined in a barangay screening, 260 had at least one carious tooth. What is the caries prevalence?

A. 35 percent
B. 54 percent
C. 26 percent
D. 65 percent

115. Dental fluorosis develops when excess fluoride is ingested

A. Only after all permanent teeth have erupted
B. While the enamel of the teeth is still forming
C. Through topical varnish once a year
D. During adulthood from toothpaste use

116. Before treatment, a dentist explains the diagnosis, the proposed procedure, its risks, alternatives, and the consequences of no treatment. This fulfills the requirement for

A. Informed consent
B. Professional indemnity
C. Implied consent in emergencies
D. Fee disclosure only

117. Placing pit and fissure sealants on newly erupted, caries-free molars is an example of

A. Primary prevention through specific protection
B. Secondary prevention through early treatment
C. Tertiary prevention through rehabilitation
D. Disability limitation

118. A dentist perforates a root during treatment and promptly tells the patient exactly what happened. This action best reflects which ethical principle?

A. Justice
B. Veracity
C. Autonomy
D. Beneficence

119. A steam autoclave used for dental instruments typically operates at about

A. 60 degrees C at atmospheric pressure
B. 160 degrees C dry heat
C. 121 degrees C at 15 psi
D. 100 degrees C boiling water

120. After a needlestick from a source patient, which bloodborne virus carries the highest risk of transmission if the healthcare worker is unvaccinated?

A. Hepatitis C virus
B. Human immunodeficiency virus
C. Hepatitis B virus
D. Hepatitis A virus

Answer key

Dentistry

1. A. Right hypoglossal nerve

The genioglossus of the intact side pushes the tongue toward the paralyzed side, so a right hypoglossal lesion causes deviation to the right.

2. D. Lateral pterygoid

The inferior head of the lateral pterygoid draws the condyle and disc forward, producing protrusion and assisting opening.

3. A. Parotid gland

Stensen's (parotid) duct pierces the buccinator and opens opposite the maxillary second molar.

4. C. Chorda tympani of the facial nerve

Taste from the anterior two-thirds is carried by the chorda tympani (CN VII), while general sensation travels in the lingual nerve (V3).

5. B. Mesiolingual cusp

The cusp of Carabelli is a fifth cusp or tubercle on the lingual surface of the mesiolingual cusp.

6. A. Mandibular first premolar

The mandibular first premolar resembles a canine buccally and has a markedly smaller lingual cusp that usually does not occlude.

7. D. Submandibular gland

The submandibular gland produces the majority of unstimulated saliva; the parotid output rises sharply only with stimulation.

8. C. Pterygomandibular raphe

The insertion point lies lateral to the pterygomandibular raphe and medial to the coronoid notch, at the level of the mandibular foramen.

9. D. Primary mandibular second molar

The primary mandibular second molar has three buccal cusps of nearly equal size, mirroring the permanent mandibular first molar.

10. C. Glossopharyngeal nerve

CN IX supplies sensation to the oropharynx and forms the afferent limb, while CN X provides the motor (efferent) limb.

11. A. Dental papilla

Peripheral cells of the dental papilla, induced by the inner enamel epithelium, differentiate into odontoblasts.

12. D. Dental follicle

The dental (follicular) sac gives rise to the tooth's supporting tissues: cementum, PDL, and alveolar bone proper.

13. A. Epithelial rests of Malassez

Rests of Malassez are remnants of Hertwig's epithelial root sheath and line most radicular (periapical) cysts.

14. C. Medial nasal process and maxillary process

The upper lip forms when the medial nasal process merges with the maxillary process; failure gives cleft lip.

15. A. Neonatal line

The neonatal line is an accentuated stria of Retzius reflecting the physiologic disturbance at birth.

16. C. Tertiary dentin

Tertiary (reactionary or reparative) dentin is laid down locally in response to an external stimulus such as caries.

17. B. Apical third and furcation areas

Acellular cementum covers the cervical portion, while cellular cementum accumulates apically and in furcations to compensate for tooth movement.

18. C. Hemidesmosomes and an internal basal lamina

Junctional epithelium is nonkeratinized and adheres to enamel through an internal basal lamina and hemidesmosomes.

19. A. Fibroblasts

Fibroblasts predominate in the pulp core and produce its collagen and ground substance.

20. B. Filiform papillae

Filiform papillae are keratinized projections serving a mechanical role and contain no taste buds.

21. B. Ameloblastoma

Ameloblastoma typically presents in adults as a slow, expansile multilocular radiolucency in the molar-ramus area with root resorption.

22. C. Nevoid basal cell carcinoma syndrome

Multiple odontogenic keratocysts with palmar pits and basal cell carcinomas are hallmarks of Gorlin (nevoid basal cell carcinoma) syndrome.

23. C. Dentigerous cyst

A dentigerous cyst encloses the crown of an unerupted tooth and is attached at its CEJ.

24. B. Erythroplakia

Most erythroplakias show severe dysplasia, carcinoma in situ, or invasive carcinoma, a far higher rate than leukoplakia.

25. C. Posterior lateral and ventral tongue

The posterolateral and ventral tongue is the most frequent intraoral site of squamous cell carcinoma.

26. A. Oral lichen planus

Wickham striae with a band of lymphocytes and basal cell degeneration are classic for lichen planus.

27. A. Mucocele

Trauma severing a minor salivary gland duct spills mucin into tissue, forming a mucocele, most often on the lower lip.

28. D. Pleomorphic adenoma

Pleomorphic adenoma is the most frequent salivary neoplasm and occurs mostly in the superficial parotid.

29. B. Pemphigus vulgaris

Intraepithelial (suprabasal) acantholysis with a positive Nikolsky sign characterizes pemphigus vulgaris; pemphigoid splits below the epithelium.

30. D. Primary herpes simplex virus infection

Primary herpetic gingivostomatitis affects young children with fever, widespread vesicles, and acute generalized gingivitis.

31. D. 72 mg

A 2% solution has 20 mg/mL; 20 x 1.8 = 36 mg per cartridge, so two cartridges give 72 mg.

32. C. 2 cartridges

1:100,000 = 0.01 mg/mL, so each cartridge has 0.018 mg; 0.04 / 0.018 = 2.2, allowing 2 full cartridges.

33. B. Has a thiophene ring and an ester group allowing plasma hydrolysis

Articaine's thiophene ring and ester side chain let plasma esterases inactivate much of it rapidly despite its amide classification.

34. A. Benzocaine

Benzocaine is an ester anesthetic; esters are metabolized to PABA, the usual allergen.

35. B. Prilocaine

Prilocaine is metabolized to o-toluidine, which oxidizes hemoglobin to methemoglobin.

36. C. Amoxicillin 2 g taken 30 to 60 minutes before the procedure

A single 2 g oral dose of amoxicillin 30 to 60 minutes before the procedure is the accepted adult prophylactic regimen.

37. C. Inhibiting cyclooxygenase and reducing prostaglandin synthesis

NSAIDs block COX enzymes, lowering prostaglandins that sensitize nociceptors and drive inflammation.

38. D. Bind to calcifying teeth and cause intrinsic discoloration

Tetracyclines chelate calcium in mineralizing tooth tissues, leaving permanent gray-brown banding.

39. C. International normalized ratio

Warfarin's effect is monitored by the INR, a standardized prothrombin time.

40. B. 150 mg

Clark's rule: (weight in lb / 150) x adult dose = (45/150) x 500 = 150 mg.

41. A. Gentle irrigation and placement of a medicated dressing

Alveolar osteitis is managed palliatively by irrigating the socket and placing a soothing medicated dressing.

42. B. No. 151

The No. 151 is the mandibular universal forceps; the No. 150 is its maxillary counterpart.

43. A. Avoid blowing the nose and sneeze with the mouth open

Small communications usually close spontaneously if sinus pressure changes that dislodge the clot are avoided.

44. C. Winter's classification

Winter's classification is based on angulation; Pell and Gregory relates the tooth to the ramus and occlusal plane.

45. D. Distoangular

The distoangular path of withdrawal runs into the ramus, making these mandibular impactions the hardest to remove.

46. A. Airway obstruction

This is Ludwig's angina; tongue elevation and spreading edema can rapidly compromise the airway.

47. B. Le Fort I

Le Fort I runs horizontally above the apices, producing a mobile floating palate; II is pyramidal and III is craniofacial separation.

48. D. Fluctuance on palpation

Fluctuance indicates a localized pus collection that can be drained.

49. D. Wider than the free margin to preserve blood supply

A broad base maintains vascular supply to the flap and reduces necrosis.

50. D. Biting firmly on a folded gauze pad over the socket for about 30 minutes

Sustained direct pressure is the first step in controlling postextraction bleeding.

51. D. Class V

Class V lesions occur on the gingival third of facial or lingual surfaces of any tooth.

52. A. Class IV

Class IV involves a proximal surface of an anterior tooth with the incisal angle; Class III does not include the angle.

53. B. Eliminate or greatly reduce the tin-mercury gamma-2 phase

Copper preferentially binds tin, so the weak, corrosion-prone gamma-2 (Sn-Hg) phase is minimized.

54. B. Reduce polymerization shrinkage stress

Thin increments cure fully and limit shrinkage stress at the bonded interface.

55. B. 35 to 37 percent

Phosphoric acid gels of roughly 35 to 37% give an effective enamel etch pattern.

56. C. Ionic bonding of carboxyl groups with calcium

Polyacrylic acid carboxyl groups chelate calcium in enamel and dentin, giving a true chemical bond.

57. A. Type IV high-strength, low-expansion die stone

Type IV die stone offers high strength, abrasion resistance, and low setting expansion for accurate dies.

58. C. Syneresis and water loss causing shrinkage

Hydrocolloids lose water by syneresis and evaporation on standing, so they should be poured promptly.

59. D. Retention form

Retention form resists dislodgment; resistance form helps the tooth and restoration withstand fracture under occlusal load.

60. A. Dissipate the heat of the exothermic reaction and extend working time

The reaction is exothermic; spreading and cooling slow setting and allow more powder to be incorporated.

61. C. Class I

Bilateral edentulous areas located posterior to the remaining natural teeth define Kennedy Class I.

62. D. Class IV

Any additional edentulous area would become the determining space, so Class IV has no modifications.

63. C. Root surface area of the abutments should equal or exceed that of the teeth replaced

Ante's law compares periodontal support: abutment root surface area should be at least that of the replaced teeth.

64. B. 1:1

An ideal ratio is about 2:3, while 1:1 is the minimum acceptable for an abutment.

65. D. 67 mm

VDO = VDR - freeway space = 70 - 3 = 67 mm.

66. B. Vibrating line between the hard and soft palate

The seal is placed at the junction of the movable and immovable palate to maintain a peripheral seal.

67. A. Candida albicans

Denture stomatitis is commonly linked to Candida colonizing the denture base, aggravated by overnight wear.

68. B. Lingual plate

A lingual bar needs about 8 mm of vertical space; with less depth a lingual plate is indicated.

69. A. Provide vertical support and direct forces along the abutment's long axis

Rests resist tissueward movement and transmit occlusal load along the long axis of the abutment.

70. A. Increases fracture resistance of the tooth

The ferrule braces the remaining tooth against wedging forces from the post and core, improving fracture resistance.

71. D. Class II division 2

Class II division 2 features retroclined maxillary centrals and a deep bite with a distal molar relationship.

72. C. Leeway space

The successor canine and premolars are smaller in total, and the surplus is the leeway space used for molar adjustment.

73. B. Lateral incisor and canine

Maxillary primate space is mesial to the canine; mandibular primate space is distal to the canine.

74. A. Band and loop space maintainer

A band and loop is the standard fixed appliance for unilateral loss of a single primary molar.

75. A. Pulpotomy

Controllable hemorrhage after coronal pulp removal indicates healthy radicular pulp suitable for pulpotomy.

76. B. Hold the tooth by the crown, rinse briefly, and replant it immediately

Immediate replantation preserves periodontal ligament cells; touch only the crown and avoid scrubbing the root.

77. D. Do not replant the tooth

Primary teeth are not replanted because of risk of damage to the developing permanent successor.

78. B. Mandibular central incisor

The mandibular central incisors are typically the first primary teeth to erupt, at about 6 to 10 months.

79. C. 22,600 ppm

Fluoride is 19/42 of NaF by mass: 0.05 x 0.452 x 1,000,000 = about 22,600 ppm.

80. B. Tell-show-do

Tell-show-do explains, demonstrates, and then performs the procedure to reduce fear of the unknown.

81. C. 8 mm

With recession, CAL = probing depth + recession = 6 + 2 = 8 mm.

82. D. 4 mm

When the margin is coronal to the CEJ, CAL = probing depth - distance to CEJ = 5 - 1 = 4 mm.

83. D. Loss of clinical attachment

Gingivitis is reversible inflammation without attachment loss; periodontitis involves attachment and bone loss.

84. B. Grade III

Grade III is a through-and-through defect still occluded by soft tissue; Grade IV is clinically visible.

85. B. Necrotizing gingivitis

Necrotic, cratered papillae with pain and fetor, linked to stress and smoking, characterize necrotizing gingivitis.

86. A. Supracrestal tissue attachment (biologic width)

The junctional epithelium and connective tissue attachment together span about 2 mm; invading this zone provokes inflammation and bone loss.

87. A. Gracey 13/14

Gracey 11/12 adapts to mesial posterior surfaces, while 13/14 is for distal posterior surfaces.

88. B. Aggregatibacter actinomycetemcomitans

The molar-incisor pattern of rapid periodontitis in young people is classically linked to A. actinomycetemcomitans.

89. C. Calcium channel blockers

Calcium channel blockers such as amlodipine and nifedipine are well-known causes of drug-influenced gingival enlargement.

90. D. Masticatory mucosa of the hard palate

Keratinized palatal mucosa in the premolar-molar region is the usual free gingival graft donor site.

91. D. Symptomatic irreversible pulpitis

Pain that lingers after removal of the stimulus indicates irreversible pulpal inflammation.

92. C. Asymptomatic apical periodontitis

A periapical radiolucency without symptoms in a nonvital tooth is asymptomatic apical periodontitis.

93. C. 0.5 to 1 mm short of the radiographic apex

Ending 0.5 to 1 mm short approximates the apical constriction and avoids overinstrumentation.

94. A. High pH that is antibacterial

Its pH of about 12.5 kills many bacteria and helps neutralize endotoxin between appointments.

95. C. Extrusion of sodium hypochlorite beyond the apex

Forcing hypochlorite into periapical tissues causes immediate pain, swelling, and ecchymosis.

96. D. Second mesiobuccal canal (MB2)

The mesiobuccal root often has a second canal located palatal to MB1 that is easily overlooked.

97. A. Triangular, with the base toward the incisal edge

The access mirrors the pulp chamber, which is triangular with its base incisally.

98. C. 0.57 mm

D16 = tip diameter + taper x length = 0.25 + 0.02 x 16 = 0.57 mm.

99. B. Apexogenesis

Apexogenesis maintains vital radicular pulp so root lengthening and apical closure continue.

100. B. Cracked tooth

Pain on release of biting is a classic sign of a cracked tooth.

101. A. 1.0 s

By the inverse square law, doubling distance requires 4 times the exposure: 0.25 x (40/20)^2 = 1.0 s.

102. B. Produces less dimensional distortion

Placing the receptor parallel to the tooth with a perpendicular beam minimizes distortion.

103. D. Lingual (palatal) to the reference teeth

By the buccal object rule (SLOB), an object moving in the same direction as the tube is lingual.

104. D. Insufficient vertical angulation

Too little vertical angulation elongates the image; too much causes foreshortening.

105. A. The mental foramen

The mental foramen can superimpose over premolar apices; an angle change separates it from the PDL space.

106. D. Tipped chin-down

Chin-down positioning produces an exaggerated smile line and distorted mandibular anterior teeth.

107. A. At least 6 feet away at 90 to 135 degrees to the primary beam

Distance and position at 90 to 135 degrees to the beam minimize scatter exposure.

108. C. Diascopy

Diascopy compresses vessels; blanching suggests blood within vascular channels rather than extravasated pigment.

109. B. Hard, fixed, and nontender

Malignant nodes tend to be hard, matted or fixed, and painless, whereas inflammatory nodes are tender and mobile.

110. C. Periapical cemento-osseous dysplasia

Early periapical cemento-osseous dysplasia appears as apical radiolucencies on vital mandibular anteriors, typically in middle-aged women.

111. D. Republic Act No. 9484

RA 9484, the Philippine Dental Act of 2007, regulates dentists, dental hygienists, and dental technologists.

112. D. 9

DMFT = D + M + F = 3 + 2 + 4 = 9.

113. D. 2.7

Mean DMFT = 135 / 50 = 2.7.

114. D. 65 percent

Prevalence = 260 / 400 = 0.65, or 65%.

115. B. While the enamel of the teeth is still forming

Fluorosis is a developmental enamel defect caused by excessive systemic fluoride during amelogenesis.

116. A. Informed consent

Valid informed consent requires disclosure of diagnosis, nature of treatment, risks, alternatives, and outcomes of refusal.

117. A. Primary prevention through specific protection

Sealants protect sound teeth from disease onset, which is specific protection under primary prevention.

118. B. Veracity

Veracity is the duty of truthfulness, including honest disclosure of treatment complications.

119. C. 121 degrees C at 15 psi

Standard gravity steam sterilization runs at about 121 degrees C and 15 psi for a set holding time.

120. C. Hepatitis B virus

Percutaneous transmission risk is roughly 30% for HBV versus about 3% for HCV and 0.3% for HIV.

Topics to review

• Oral anatomy and pathology

• Dental materials and restorative principles

• Periodontics, prevention and radiographic interpretation

• Treatment planning and practical preparation

Online question banks and study resources

Dentist written exam - Pass Harbor (Question bank)

Dental hygienist written exam - Pass Harbor (Question bank)

Dental technologist written exam - Pass Harbor (Question bank)

Official PRC board information

Current PRC exam programs

Independent study material prepared by Board Exam Desk.