

Test Bank for Foundations of Periodontics for the Dental Hygienist 6th Gehrig

Multiple Choice

1. Two neighboring epithelial cells in the gingival epithelium are attached to one another by which type of cell junction?

- A. Polymosome
- B. Desmosome
- C. Hemidesmosome
- D. Unidesmosome

Answer: B

Subject: Chapter 02: Microscopic Anatomy of the Periodontium

A-head: Section 1: Histology of the Body's Tissues

Bloom's: Comprehension

Complexity: Easy

2. Which type of cell junction allows a gingival epithelial cell to attach to the basal lamina?

- A. Polymosome
- B. Desmosome
- C. Hemidesmosome
- D. Unidesmosome

Answer: C

Subject: Chapter 02: Microscopic Anatomy of the Periodontium

A-head: Section 1: Histology of the Body's Tissues

Bloom's: Comprehension

Complexity: Easy

3. What effect does keratinization have on epithelial cells?

- A. Makes them weaker and more permeable
- B. Makes them weaker and waterproof
- C. Makes them stronger and more permeable
- D. Makes them stronger and waterproof

Answer: D

Subject: Chapter 02: Microscopic Anatomy of the Periodontium

A-head: Section 1: Histology of the Body's Tissues

Bloom's: Comprehension

Complexity: Moderate

4. What is the mesh-like material that surrounds the cells and provides a framework?

- A. Mast cell
- B. Extracellular matrix
- C. Nucleus
- D. Collagen fiber bundle

Answer: B

Subject: Chapter 02: Microscopic Anatomy of the Periodontium

5. A dental hygienist gently inserts a calibrated periodontal probe slightly into a sulcus. One side of the working end of the probe touches the tooth surface as the probe is inserted. During the process of insertion, the other side of the probe is touching which anatomical structure?

- A. Junctional epithelium
- B. Sulcular epithelium
- C. Basal epithelium
- D. Oral epithelium

Answer: B

Subject: Chapter 02: Microscopic Anatomy of the Periodontium

A-head: Section 2: Histology of the Gingiva

Bloom's: Application

Complexity: Difficult

6. A dental hygienist inserts a periodontal probe into a deep 6-mm periodontal pocket until it reaches the base of the pocket. Which anatomical structure is the probe touching at the base of the periodontal pocket?

- A. Junctional epithelium
- B. Sulcular epithelium
- C. Basal epithelium
- D. Oral epithelium

Answer: A

Subject: Chapter 02: Microscopic Anatomy of the Periodontium

A-head: Section 2: Histology of the Gingiva

Bloom's: Application

Complexity: Difficult

7. A patient has a healthy periodontium. If the hygienist could see the microscopic structures of this patient's periodontium, how would the interface of the *junctional* epithelium with the gingival connective tissue appear?

- A. It would have a smooth interface.
- B. It would have a parallel interface.
- C. It would have a sloping interface.
- D. It would have a wavy interface.

Answer: A

Subject: Chapter 02: Microscopic Anatomy of the Periodontium

A-head: Section 2: Histology of the Gingiva

Bloom's: Comprehension

Complexity: Moderate

8. The mat of extracellular matrix that separates epithelial sheets from underlying connective tissue is called the:

- A. basal lamina.
- B. stratified squamous epithelium.

9. Epithelium does not contain blood vessels. Epithelium is a nonvital tissue that does not require nourishment to maintain cells.

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.

Answer: C

Subject: Chapter 02: Microscopic Anatomy of the Periodontium

A-head: Section 1: Histology of the Body's Tissues

Bloom's: Comprehension

Complexity: Moderate

10. Which statement about keratinization is *false*?

A. Keratinized epithelial cells have no nuclei.

B. The heaviest keratinized epithelium of the body is found on the palms of hand and soles of feet.

C. Keratinized cells are waterproof.

D. Although keratinized tissue is very strong, it is also very flexible.

Answer: D

Subject: Chapter 02: Microscopic Anatomy of the Periodontium

A-head: Section 1: Histology of the Body's Tissues

Bloom's: Comprehension

Complexity: Moderate

11. The difference between a desmosome and hemidesmosome is that:

A. a desmosome connects two cells together, and a hemidesmosome connects a cell to the basal lamina.

B. a desmosome is found in the gingival epithelium, and a hemidesmosome is found in connective tissue.

C. a desmosome connects a cell to the basal lamina, and a hemidesmosome connects one cell to another.

D. a desmosome is found in connective tissue, and a hemidesmosome is found in gingival tissue.

Answer: A

Subject: Chapter 02: Microscopic Anatomy of the Periodontium

A-head: Section 1: Histology of the Body's Tissues

Bloom's: Comprehension

Complexity: Moderate

12. What gives connective tissue the strength to withstand mechanical forces?

A. Extracellular matrix

B. Macrophages

C. Lymphocytes

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Test Bank

D. Basal lamina

Answer: A

Subject: Chapter 02: Microscopic Anatomy of the Periodontium

A-head: Section 1: Histology of the Body's Tissues

Bloom's: Comprehension

Complexity: Moderate

13. Epithelium *always* meets connective tissue in a smooth pattern. The strong adhesion of epithelium allows skin to resist mechanical forces.

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.

Answer: D

Subject: Chapter 02: Microscopic Anatomy of the Periodontium

A-head: Section 1: Histology of the Body's Tissues

Bloom's: Comprehension

Complexity: Moderate

14. The epithelium that joins the gingiva to the tooth surface at the base of the sulcus is the:

A. sulcular epithelium.

B. junctional epithelium.

C. oral epithelium.

D. basal cell layer of epithelium.

Answer: B

Subject: Chapter 02: Microscopic Anatomy of the Periodontium

A-head: Section 2: Histology of the Gingiva

Bloom's: Knowledge

Complexity: Easy

15. In most places in the body, the interdigitation of the epithelial layer and the underlying connective tissue most closely resembles:

A. interlocked grasped hands.

B. two swirled colors.

C. books on a bookshelf.

D. a long, steep curve.

Answer: A

Subject: Chapter 02: Microscopic Anatomy of the Periodontium

A-head: Section 1: Histology of the Body's Tissues

Bloom's: Comprehension

Complexity: Moderate

16. In health, the junctional epithelium has a wavy tissue interface with connective tissue. The junctional epithelium provides a protective barrier between plaque biofilm and connective tissue.

A. Both statements are true.

B. Both statements are false.

C. The first statement is true; the second is false.

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D. The first statement is false; the second is true.

Answer: D

Subject: Chapter 02: Microscopic Anatomy of the Periodontium

A-head: Section 2: Histology of the Gingiva

Bloom's: Comprehension

Complexity: Moderate

17. All of the following are functions of gingival fibers, *except*:

A. they connect adjacent teeth to one another to control tooth position.

B. they prevent plaque biofilm from entering the gingival connective tissue.

C. they provide the gingiva with the rigidity needed to withstand frictional forces during chewing.

D. they connect the gingiva to the underlying cementum and alveolar bone.

Answer: B

Subject: Chapter 02: Microscopic Anatomy of the Periodontium

A-head: Section 2: Histology of the Gingiva

Bloom's: Comprehension

Complexity: Moderate

18. Which group of fibers encircles the tooth in a ring-like manner?

A. Alveologingival

B. Circular

C. Intergingival

D. Transgingival

Answer: B

Subject: Chapter 02: Microscopic Anatomy of the Periodontium

A-head: Section 2: Histology of the Gingiva

Bloom's: Comprehension

Complexity: Easy

19. Which groups of fibers attach the gingiva to bone?

A. Alveologingival, periosteogingival

B. Intergingival, transgingival

C. Alveologingival, intergingival

D. Circular, intercircular

Answer: A

Subject: Chapter 02: Microscopic Anatomy of the Periodontium

A-head: Section 2: Histology of the Gingiva

Bloom's: Comprehension

Complexity: Moderate

20. All of the following are functions of the periodontal ligament, *except*:

A. it attaches the tooth to the bony socket.

B. it provides sensory and nutritive functions.

C. it unites free gingiva with cementum.

D. it contains osteoclasts that can resorb bone.

Answer: C

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A-head: Section 2: Histology of the Gingiva

Bloom's: Comprehension

Complexity: Moderate

21. The ends of periodontal ligament fibers that embed in bone and cementum are known as:

A. interradicular fibers.

B. Sharpey's fibers.

C. rete pegs.

D. endpoint fibers.

Answer: B

Subject: Chapter 02: Microscopic Anatomy of the Periodontium

A-head: Section 2: Histology of the Gingiva

Bloom's: Knowledge

Complexity: Easy

22. All of the following are functions of cementum, *except*:

A. it seals (covers) the dentinal tubules.

B. it attaches periodontal fibers to the tooth.

C. it lines the bony sockets and protects the roots of teeth.

D. it compensates for loss of tooth tissue caused by attrition.

Answer: C

Subject: Chapter 02: Microscopic Anatomy of the Periodontium

A-head: Section 3: Histology of Root Cementum and Alveolar Bone

Bloom's: Comprehension

Complexity: Moderate

23. Which statement about the cementum/enamel relationships is *false*?

A. The relationships are collectively abbreviated as OMG.

B. All of the various arrangements can be present in any one tooth.

C. The arrangement that leaves a gap may cause discomfort during instrumentation.

D. When the cementum overlaps enamel, it causes a periodontal pocket.

Answer: D

Subject: Chapter 02: Microscopic Anatomy of the Periodontium

A-head: Section 3: Histology of Root Cementum and Alveolar Bone

Bloom's: Comprehension

Complexity: Moderate

24. One of the differences between cementum and alveolar bone is that:

A. cementum has no blood vessels and nerves; alveolar bone does have blood vessels and nerves.

B. after bone is resorbed, it can reform, but after cementum is removed, it cannot reform.

C. Sharpey's fibers attach periodontal fibers to alveolar bone, but do not attach periodontal fibers to cementum.

D. bone is mineralized, and cementum is not.

Answer: A

Subject: Chapter 02: Microscopic Anatomy of the Periodontium

A-head: Section 3: Histology of Root Cementum and Alveolar Bone

Bloom's: Comprehension

25. Which structure is the part of the maxilla and mandible that forms and supports the sockets of the teeth?

- A. Cementum
- B. Basal lamina
- C. Basement membrane
- D. Alveolar process

Answer: A

Subject: Chapter 02: Microscopic Anatomy of the Periodontium

A-head: Section 3: Histology of Root Cementum and Alveolar Bone

Bloom's: Knowledge

Complexity: Easy

26. Osteoblasts are cells that initiate mineralization of bone. Osteoclasts remove mineral materials from bone.

- 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.

Answer: A

Subject: Chapter 02: Microscopic Anatomy of the Periodontium

A-head: Section 3: Histology of Root Cementum and Alveolar Bone

Bloom's: Comprehension

Complexity: Moderate

27. Without cementum, there can be no tissue reattachment after scaling and root smoothing. For enhanced healing, it is necessary to remove bacteria-laden cementum during subgingival instrumentation.

- 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.

Answer: C

Subject: Chapter 02: Microscopic Anatomy of the Periodontium

A-head: Section 3: Histology of Root Cementum and Alveolar Bone

Bloom's: Comprehension

Complexity: Moderate

28. A(n) _____ locks a cell and its cytoskeleton to its neighboring cell or to the basal lamina.

- A. connective tissue
- B. cell junction
- C. alveolar process
- D. hemidesmosome

Answer: B

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Bloom's: Knowledge

Complexity: Easy

29. Which principal fiber group of the periodontal ligament is located closest to the crown of a tooth?

- A. Apical fibers
- B. Interradicular fibers
- C. Alveolar crest fibers
- D. Horizontal fibers

Answer: C

Subject: Chapter 02: Microscopic Anatomy of the Periodontium

A-head: Section 3: Histology of Root Cementum and Alveolar Bone

Bloom's: Comprehension

Complexity: Moderate

30. Which structure separates the gingival fibers from the enamel of a tooth?

- A. Desmosome
- B. Cementum
- C. Internal basal lamina
- D. External basal lamina

Answer: B

Subject: Chapter 02: Microscopic Anatomy of the Periodontium

A-head: Section 2: Histology of the Gingiva

Bloom's: Comprehension

Complexity: Moderate