

RESTORATIVE DENTISTRY D260
PROGRESS EXAMINATION #1
February 18, 2010

NAME: [REDACTED]

PRECLINICAL SEAT NUMBER [REDACTED]

EXAMINATION NUMBER: [REDACTED] A

SA -6
mc
(16 x 3) + 28
+1
SA
19%

1. Please read all directions before starting the examination.
2. Your examination booklet should contain 3 pages. The exam contains 22 multiple choice questions and 9 short answer questions. Please check to verify you have all of the examination.
3. Write your name and preclinical seat number on the cover of the examination and on the short answer page (page 3).
4. Write your name, your Temple ID number and the exam number and letter on the computerized answer sheet in the appropriate boxes. Blacken the corresponding letters and digits below the boxes.
5. On the reverse side of the computerized answer sheet sign your name and write the number and letter (A or B) of your test booklet in the box labeled identification information.
6. Darken all circles on the answer sheet before the end of the examination. Extra time will not be given at the end of the examination for this purpose.
7. Choose the best answer for each question using the information available. No questions will be answered during the examination.
8. Return the computerized answer form AND the entire examination booklet to the proctor.

1. The earliest clinical evidence of incipient caries on smooth surfaces is called a white spot lesion. Drying the tooth surface causes this lesion to partially or totally disappear from vision.

- a. Both statements are true. c. Statement one is true and statement two is false.
b. Both statements are false. d. Statement one is false and statement two is true.

2. Incipient lesions may be reversed by remineralization, restoring the enamel to a sound state. When fluoride ion is part of the remineralization process, the enamel not only is restored to soundness, but also has increased resistance to further caries attacks.

- a. Both statements are true. c. Statement one is true and statement two is false.
b. Both statements are false. d. Statement one is false and statement two is true.

3. A favorable prognosis for the pulp after direct pulp capping may be expected if which of the following criteria are met:

1. The exposure is small (< 0.5mm in diameter) ✓
2. Tooth sensitivity to a cold stimulus lasts longer than 10 - 15 seconds after stimulus removal ✓
3. The invasion of the pulp was traumatic with moderate physical irritation to the pulp ✓ #4
4. Preparation was prepared under the rubber dam ✓
5. There is excessive hemorrhage from the exposure site

- a. all of the above b. none of the above c. two of the above d. three of the above

4. The powder component of IRM is essentially

- a. EBA with methyl methacrylate
b. Zinc oxide with EBA
c. Zinc oxide and aluminum oxide
d. Zinc oxide and methyl methacrylate
e. Zinc oxide and ethyl methacrylate

5. According to the material presented in the Sturdevant text, remaining old restorative material on the internal walls of a preparation should be removed if which of the following condition(s) is (are) present:

1. The old material is judged to be thin, non-retentive or both. ✓
2. There is evidence of caries under the material (radiographic and/or visual) ✓
3. The pulp was asymptomatic preoperatively
4. The periphery of the remaining restorative material is intact

- a. all of the above b. none of the above c. one of the above d. two of the above e. three of the above

6. According to material presented in the Sturdevant text, when caries is extensive, reduction of one or more of the cusps for capping may be indicated. Complex amalgam restorations with one or more capped cusps have documented longevity of _____.

- a. 44% after 5 years b. 50% after 9 years c. 62% after 12 years d. 72% after 15 years

7. Remineralization of damaged tooth structure first begins to occur as the local pH increases to greater than

- a. 4.0 b. 4.5 c. 5.0 d. 5.5

Slide 31
Treatment of LCL - 104m1

liquid is Eugenol

8. The reason for using traditional liners or bases is to either protect the pulp or to aid pulpal recovery or both. The remaining thickness of dentin is a key determining factor in material choice.

- A
- a. Both statements are true.
 - b. Both statements are false.
 - c. Statement one is true; statement two is false.
 - d. Statement one is false; statement two is true.

9. Pin retention is used more frequently in preparations with few or no vertical walls. Slots are particularly indicated in short clinical crowns and in cusps that have been reduced 2-3mm for amalgam.

- A
- a. Both statements are true.
 - b. Both statements are false.
 - c. Statement one is true; statement two is false.
 - d. Statement one is false; statement two is true.

C

10. In the hand instrument formula, 13-80-8-14, the number 14 represents the

- a. width of the blade
- b. blade length
- c. blade angle
- d. primary cutting edge angle

A

11. Initial pulpal inflammation is thought to be evident clinically by production of sharp pains. A short, painful response to cold with each pain lingering only a few seconds (<10 seconds) in response to the thermal stimulus is suggestive of

- a. reversible pulpitis
- b. irreversible pulpitis
- c. necrotic pulp

A

12. Color differences in the dentin cannot be used as a reliable index for complete caries removal. In rapidly advancing lesions the softened dentin may show little or no color change while more slowly advancing lesions may have more discoloration.

- a. Both statements are true.
- b. Both statements are false.
- c. Statement one is true; statement two is false.
- d. Statement one is false; statement two is true.

B

13. When placing a base on the pulpal floor, it is important to cover the entire floor of the preparation with the base; because it is better to have the base rather than dentin bear the compressive load of mastication

- a. Both statements are true.
- b. Both statements are false.
- c. Statement one is true and statement two is false.
- d. Statement one is false and statement two is true.

A

14. A percussion test is performed by gently tapping the occlusal or incisal surfaces of the suspected tooth and adjacent teeth with the end of the handle of a mouth mirror to determine the presence of tenderness. Pain on percussion suggests possible injury to the periodontal membrane from pulpal or periodontal inflammation.

- a. Both statements are true.
- b. Both statements are false.
- c. Statement one is true and statement two is false.
- d. Statement one is false and statement two is true.

C

15. In a Class II cavity prepared for dental amalgam, the facial and lingual proximal walls should be formed

- a. approximately parallel to each other
- b. at right angles to the gingival floor
- c. slightly diverging as the walls approach the proximal surface
- d. slightly diverging as the walls approach the occlusal surface

C

16. Whenever dentin has been cut or abraded, a thin (only a few micrometers thick) altered layer is created on the surface. This layer is called?

- a. sclerotic dentin
- b. reparative dentin
- c. smear layer
- d. hybrid layer

C

17. The ICDAS caries detection system uses visual clues to assess caries development and codes the lesions on a scale from 0 to 6. In the treatment planning clinic you are asked to evaluate a tooth and code it according to the ICDAS system. This tooth when wet, shows a white opaque lesion that is wider than the natural fissure. When dry, you observe there is carious loss of tooth structure but no visible dentin. This tooth would be coded as a

- a. Code 1
- b. Code 2
- c. Code 3
- d. Code 4

D

18. A dentist is preparing Tooth # 30 for an occlusal amalgam restoration. Once the ideal outline form and depth have been established, the dentist notes that caries remains in a small area of the pulpal wall of the preparation. The next step in treatment is to

- a. extend the outline form
- b. deepen the entire pulpal floor
- c. remove the caries with a large round bur on high speed
- d. remove the caries with a large round bur on slow speed

According to material presented in lecture and the Sturdevant text, identify the following statements (questions 19 - 22) as true or false. Darken (a) on your answer sheet if the statement is true. Darken (b) on your answer sheet if the statement is false.

- a. True
- b. False

T X

19. The retention potential differences between pins and slots are not significant.

F F

20. Dentin bonding agents are not recognized as beneficial for dentinal sealing under amalgam restorations.

F F

21. The pH of hard-set calcium hydroxide is about 7 (neutral).

F

22. Enamel permeability increases with age because of changes in the enamel matrix.

Short Answer Questions: (34 points)

1. Location of the gingival cavosurface margin (clinically) must satisfy two criteria; these are

(2 points)

Break contact with adjacent tooth

(2 points)

Go to sound tooth structure

2. (2 points) A Class II cavity preparation involving the mesial surface of a maxillary first premolar requires special attention because the mesiofacial embrasure is esthetically important. How should the facial wall of the mesial box be prepared (relative to the long axis of the tooth) to minimize an unaesthetic display of amalgam in the faciogingival corner of the restoration.

Prepared Parallel to long axis

The wall is placed perpendicular to the occlusal table. You should not be able to see the facial axial gingival point angle. This protects the pulp and esthetics.

3. (4 points) After placing the Tofflemire matrix band for restoration of a Class 2 preparation, the operator should test with an explorer in a press-scrape motion along the gingival cavosurface margin. What is the purpose of this procedure? (Give two reasons)

Remove Rubber Dam DebrisRemove Tissue DebrisCheck for Gaps4. (2 points) What is the main reason "pilot holes" are used when preparing pin holes? To prevent Drillbit crawling5. (6 points) If a small pulpal exposure occurs during cavity preparation, in a clean operating field under a rubber dam, a layer of Dycal can be placed over the exposure site to stimulate reparative dentin across the exposure site. This procedure is called Direct pulp capping6. (2 points) Name the hand instrument which can most effectively round the axiopulpal line angle and remove unsupported enamel rods at the gingival cavosurface margin of a Class II cavity prepared for amalgam Gingival Margin Trimmer

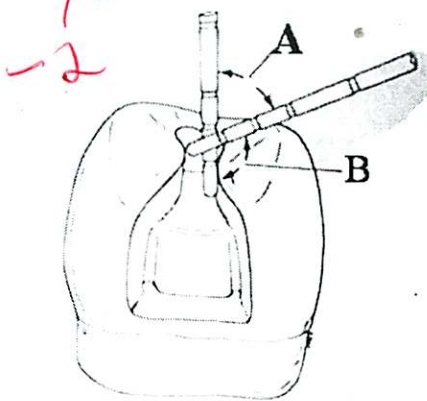
7. (4 points) Give two causes of postoperative sensitivity associated with newly placed amalgam restorations.

Conductive nature of AmalgamLack of varnish use to seal dentinal tubules

8. (6 points) Give three causes of marginal ridge fractures with newly placed amalgam restorations.

Marginal Ridge placed too highLack of contact w/ Adjacent TeethPoor Condensation.

9. (4 points) In the diagram below, angle A is called the

Cavosurface AngleMinimum Restorative Material Angleand angle B is called Cavosurface Angle

- 8) Axiopulpal line angle not rounded
 Hyperocclusion / ridge too high
 Occlusal embrasure form incorrect
 Overzealous carving
 Improper removal of matrix band