corrected Answers circled

RESTORATIVE DENTISTRY D262
PROGRESS EXAMINATION #2
April 17, 2009

NAME: [redacted]

PRECLINIC SEAT NUMBER: [redacted]

EXAMINATION NUMBER AND LETTER: [redacted] B 26

1. Please read all directions before starting the examination.
2. Your examination booklet should contain 4 pages with a total of 30 questions. Please check to verify you have all of the examination.
3. Write your name and preclinic seat number on the cover of the examination booklet.
4. Write your name and Temple ID number on the computerized answer sheet in the appropriate boxes. Blacken the corresponding letters and digits below the boxes.
5. In the box labeled optional codes write your test number above the word TEST and circle A or B depending on your exam.
6. On the reverse side of the computerized answer sheet sign your name and write the number **and** letter (A or B) of your exam booklet in the box labeled identification information.
7. Be sure to 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.
8. Choose the best answer for each question. No questions will be answered during the examination.
9. Return the computerized answer form **AND** the entire examination booklet to the proctor.

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1. A chamfer margin is formed as the negative image of a round-end tapered diamond; therefore a chamfer should not be wider than half the diameter of the bur used, otherwise a lip of unsupported enamel results.

(a) both statements are true
b. both statements are false
c. statement one is true; statements two is false
d. statement one is false; statement two is true

2. In a full gold crown preparation, the purpose of the seating groove is to

a. prevent any rotational tendencies during cementation
b. help guide the casting to place during cementation
c. provide resistance and retention form
d. two of the above
(e) all of the above

3. Which of the following is a true characteristic of the chamfer margin preparation?

a. The chamfer margin design has shown experimentally to exhibit the most stress along the finish line.
b. The chamfer has an acute edge at the finish line to allow for accurate seating of the restoration.
(c) The chamfer has sufficient depth at the margins to provide for an adequate thickness of gold.
d. The chamfer offers an effective "slip joint" margin.

4. A 90 degree angle is the angle that

1. enamel prisms make with the outer surface of the tooth
2. dentinal tubules make with the DEJ
3. an amalgam restoration should make with the cavity wall at the cavosurface margin of the cavity preparation

(a) All of the above
b. one of the above
c. two of the above

5. Before inserting amalgam into an MOD cavity preparation, a matrix is placed around the tooth. Which of the following procedures should be accomplished next?

1. The band should be burnished into contact with the adjacent tooth ✓
2. The matrix retainer should be tightened as much as possible and reinforced facially and lingually with compound
3. Tapered wedges should be placed interproximally to obtain close adaptation of the matrix at the gingival margins ✓
4. Tapered wedges should be placed carefully to hold the band in close adaptation to the gingival margin without separating the teeth ✗

a. 1, 2, 3 (b) 1, 3 c. 1, 3, 4 d. 1, 4 e. 2, 3

6. It is more difficult to bond to dentin than to enamel because:

a. dentin contains more mineralized tooth structure ✗
b. dentin contains more water ✓
c. the presence of the smear layer makes it harder for the adhesive to wet the dentin ✓ Have to modify it.
(d) two of the above
e. all of the above

7. Resistance to proximal displacement in the ideal Class II restoration is provided by

1. the adjacent tooth
2. occlusal dovetail ✓
3. converging proximal walls
4. retention grooves in the proximoaxial line angles ✓

a. all of the above b. 1, 2, 4 c. 1, 3 d. 2, 3 (e) 2, 4

8. Bond strengths for superficial dentin close to the dentinoenamel junctions are greater than those for deep dentin because in deep dentin the greater number of tubules and the larger diameter of tubules reduce the amount of intertubular dentin available for bonding.

(a) both statements are true c. statement one is true; statement two is false
b. both statements are false d. statement one is false; statement two is true.

9. According to material presented in the Shillingburg text, to minimize stress in the cement interface between the preparation and the restoration, an axial wall taper of _____ degrees has been suggested as optimum; however research by Mack estimates that a minimum taper of _____ degrees is necessary just to insure the absence of undercuts.

a. 2 – 6 ; 18 b. 3 – 5; 15 – 20 c. 6; 8 (d) 2 – 6; 12

10. According to material presented in the Shillingburg text, a taper or total convergence of ____ degrees has been proposed as being achievable clinically while still affording adequate retention.

a. 9 b. 12 (c) 16 d. 20 e. 25

11. Teeth with intrinsic staining sometimes require restorations because of patient esthetic concerns. These teeth can be restored using direct composite veneers. Which of the following statements are true concerning direct composite veneer restorations.

1. Tetracycline-stained teeth are much more difficult to veneer, especially if dark staining occurs in the gingival third of the tooth ✓
2. Multiple layers of opaque materials should be applied in thin layers and cured independently ✓
3. Allowing opaque material to remain at the cavosurface margin will not affect the esthetics of the restoration
4. Using a brush to obtain a stippled surface on the opaque material results in diminished esthetics because it interferes with the reflection of light rays through the veneer

a. All statements are true b. 1, 2, 4 c. 2, 3, 4 (d) 1, 2 e. 1 only

12. In normal healthy circumstances, the oral flora capable of colonizing the teeth is not capable of causing disease. However, an active carious lesion can serve as a reservoir of Mutans Streptococci and lactobacilli, providing the large threshold dose necessary to establish infections on other tooth surfaces.

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

13. Which of the following factors contributes the greatest amount of retention to a cast gold crown restoration
    a. proximal cavosurface margin chamfer
    b. uniform occlusal reduction
    c. rounded occlusal line angles
    d. properly placed functional cusp bevel
    e. near parallel axial walls

14. Which of the following are true regarding caries originating on the root surface
    1. it has a comparatively rapid progression
    2. it is often asymptomatic
    3. it is more difficult to restore
    4. it is closer to the pulp than pit and fissure caries

    a. all of the above b. all of the above except one c. all of the above except two

Careful

15. Gavelis *et al* found that tooth preparations with _____ permitted the most complete marginal sealing of a crown.
    a. parallel bevels b. shoulders c. chamfers d. reverse bevels

complete seating = shoulders
marginal sealing = 11 bevels.

16. All of the following are true regarding the use of the knife edge finish line for cast gold restorations :
    1. the axial reduction may fade out instead of terminating in a definite finish line
    2. difficulty in identification may make waxing of the restoration difficult
    3. it is more susceptible to distortion under occlusal forces
    4. can result in undercontoured restorations

    a. all of the above b. 1, 2, 4 c. 2, 4 d. 1, 2, 3 e. 1, 4

17. The words "overcarved" and "undercarved", "overcontoured" and "undercontoured" are used frequently by your laboratory instructors. Some of them are included in the criteria for evaluation of the restorations done in your exercises and practical examinations. If a surface is overcarved, the surface is left
    a. overcontoured b. undercontoured c. also undercarved d. none of the above

18. Twenty-four hours after cementing your first crown the patient calls and complains of sensitivity to heat, cold and pressure. The preparation dimensions were ideal. The most likely cause of this sensitivity is
    a. occlusal trauma
    b. improper cementation
    c. impingement on the marginal gingival
    d. failure to desensitize the abutment teeth

19. The "wet bonding" technique has been shown to enhance bond strengths because water preserves the porosity of collagen networks available for monomer interdiffusion. If the dentin surface is dried with air, the collagen undergoes immediate collapse and prevents resin monomers from penetrating.
    a. both statements are true
    b. both statements are false
    c. statement one is true; statements two is false
    d. statement one is false; statement two is true

20. A preparation on a tooth with a large diameter resists pivoting movements better than a preparation of equal length on a tooth of smaller diameter.
    a. True b. false

21. Which of the following are true statements concerning the placement of gingival finish lines for full gold crowns
    1. Finish lines should be placed in enamel when it is possible to do so.
    2. Finish lines must be placed so that they can be duplicated by the impression, without tearing or deforming the impression when it is removed from the mouth.
    3. In a caries prone individual, it is best to place the finish line subgingival because the gingival sulcus is caries-free.
    4. The finish line should extend beyond existing restorations onto sound tooth structure.
    5. The deeper the finish line (restoration margin) resides in the gingival sulcus, the greater the inflammatory response of the periodontium.

    a. all of the above b. 1, 2, 3, 4 c. 1, 2, 4, 5 d. 2, 4 and 5 only e. 1, 4 and 5 only

22. Non-working side interferences generally occur on the inner aspects of which teeth?
    1. facial cusps of mandibular molars
    2. facial cusps of maxillary premolars
    3. lingual cusps of maxillary molars
    4. facial cusps of maxillary molars.

Maxi: L
Mand: B/F

a. 2 and 4 (b. 1 and 3) c. 2 and 3 d. 3 and 4

08 #34 23. Which of the following statements regarding quadrant dentistry (is) are true
    1. it is recommended to restore the most posterior tooth first ✓
    2. If proximal boxes differ in size, teeth with smaller boxes should be restored first. ✓
    3. When restoring a quadrant of Class II amalgam tooth preparations, it is permissible to apply matrix bands on alternate preparations in the quadrant and restore the teeth two at a time. ✓
    4. using a finishing strip between newly placed contacting amalgam restorations may lighten or eliminate the proximal contact. ✓

(a.) all of the above are true b. 1 and 2 c. 2, 3, 4 d. 3, 4 e. 4

08 #35 24. The copal resin varnish that is placed in the cavity preparation before the amalgam is placed is condensed provides
    a. sealing of the margins for the lifetime of the restoration
    b. long-term sealing of several years duration
    (c.) short-term sealing of the margins
    d. no sealing of the margins

25. Force applied to the occlusal surface of a crown at an oblique angle can produce a line of action that passes outside the supporting tooth structure. The point on the margin closest to the line of action is the fulcrum point or center of rotation. If a line is drawn from the center of rotation perpendicular to the cement film on the opposite wall of the prep, the point where this line intercepts the cement film is called the tangent point. Apical to the tangent point of a crown preparation the forces have a component of _____

a. compression (Incisal) b. shear (Tangent) (c.) tension. (Apical)

26. The linear coefficient of thermal expansion of currently used composites is approximately _____ times that of tooth structure
    a. 1.5X b. 2.0X c. 2.5X (d.) 3.0X e. 3.5X

27. When preparing tooth # 30 for a full gold crown, the buccal cusps are reduced _____ for proper structural durability
    a. 0.5 mm b. 1.0 mm (c.) 1.5 mm d. 2.0 mm

28. Flowable resin composites generally have a _____ percentage filler content than other types of resin composites.
    (a.) lower b. higher

29. Which of the following statements is true concerning the use of bevels in Class III composite resin preparations?
    1. Bevels improve bonding strength by increasing the surface area available for bonding.
    2. Bevels provide for improved esthetics by allowing for a gradual blending of tooth and composite.
    3. Bevels can vary in length depending on the need for retention.
    4. Bevels can be placed using round or flame shaped diamond burs.
    5. Bevels improve marginal seal and decrease microleakage and are equally effective above and below the CEJ.

a. all of the above b. 1, 2, 4 and 5 c. 1, 2 and 3 (d.) 1, 2, 3 and 4

30. When cementing an indirect composite veneer, the bonding agent is applied to the tooth surface of the veneer and cured before placing the veneer on the tooth to ensure complete polymerization of the bonding agent.
    a. True (b.) False