

Name _____



RESTORATIVE DENTISTRY V (D553)

Quiz #2 October 28, 2011 Correct answers in RED

1. In their review of clinical studies related to the partial removal of caries lesions, Thompson *et al* (JADA 2008) observed that teeth in which restorations were placed directly over residual carious dentin frequently exhibit these outcomes (CIRCLE **ALL** THAT APPLY):

- a. **reduced counts of viable bacteria several months later**
- b. fractured restorations
- c. **hardening of the residual carious dentin and little or no evidence of lesion progression**

2. The RCT by Mertz-Fairhurst *et al* (*Ultraconservative and cariostatic sealed restorations: results at year 10*. JADA. 1998), a landmark study in cariology, tracked the progression of large dentin lesions sealed into restored teeth using (CIRCLE **ONE**)

- a. **conventional bite-wing radiography**
- b. digital subtractive radiography
- c. serial tomography

3. Is this a reasonable clinical application of the findings of the Mertz-Fairhurst clinical trial (*Ultraconservative and cariostatic sealed restorations: results at year 10*. JADA. 1998)?

Use amalgam and flowable resin-based composite in combination for Class I PRRs.

Circle one: **Yes** No

4. The self-etching resin adhesive systems are distinguished from the total-etch (etch and rinse) systems in that SE materials may retain some of the "smear layer". Circle one: **T** F

5. Prime&Bond-NT, the adhesive used in the Phase 1 clinic, is a _____ system. (CIRCLE **ONE**)

- a. **one-bottle, total-etch**
- b. two-bottle-total etch
- c. one-bottle, self-etch
- d. two-bottle, self-etch

6. The primary source of adhesion between a resin bonding agent and dentin is **the hybrid layer or collagen/resin hybrid zone.**

7. Glass ionomer materials release fluoride to the surrounding tooth structure, which results in a scientifically-proven reduction in the incidence of secondary caries around these restorations.

Circle one: T **F**

8. A list of risk factors that are relevant in the determination of periodontal prognosis includes (CIRCLE **ALL** THAT APPLY)

- a. **bleeding upon probing**
- b. **periodontal attachment loss**
- c. **furcation involvement**

9. If an evaluation of the structural integrity of a tooth requiring a crown reveals an inadequate ferrule, a possible solution might be **crown-lengthening surgery (or orthodontic extrusion).**

10. Which of the following are common risks or disadvantages of tooth replacement using a conventional PFM fixed partial denture? (CIRCLE **ALL** THAT APPLY.)

- a. **adverse short- and long-term effects on the periodontium**
- b. low patient satisfaction ratings
- c. **adverse effects on the natural abutment teeth**
- d. unpredictable esthetics

11. High caries risk patients who cannot comply with hygiene and medical management recommendations are NOT good candidates for conventional FPDs with natural tooth abutments.

Circle one: **T** F

12. The single greatest advantage of replacing a missing tooth with a crown on an implant, instead of a FPD, is **conservation of natural tooth structure.**

13. Significant mesial tilting of a molar abutment for a FPD tends to result in excessive total occlusal convergence of the tooth preparation. Circle one: **T** F
14. The primary reason for using a shoulder in a tooth preparation for a crown is to make room for the restorative materials (metal and porcelain).
15. The principal reason for using a sloping shoulder or heavy chamfer finish line for the facial margin of an anterior PFM crown instead of a traditional beveled shoulder is to (CIRCLE **ONE**)
- reduce the risk of porcelain fracture
 - conserve tooth structure
 - eliminate the metal collar for better esthetics**
 - improve resistance and retention
16. According to lecture, the very first instrument that should be used in the process of “protective tooth preparation” for a PFM crown is the perio probe.
17. According to Goodacre *et al* (*Tooth preparations for complete crowns: an art form based on scientific principles*, J Prosth Dent, 2001), the axial walls of molars prepared for crowns with a total occlusal convergence of 10-20° should be at least ____ mm long occlusogingivally for adequate resistance and retention. (CIRCLE **ONE**)
- 3
 - 4**
 - 5
 - 6
18. Which of the following are possible outcomes of flexure (elastic deformation) of a PFM fixed partial denture substructure? (CIRCLE **ALL THAT APPLY**)
- fracture of the veneering porcelain**
 - fracture of the prosthesis**
 - failure of the cement seal of the abutment crowns**
19. The most reliable way to compensate for molar crown preparations that are short occlusogingivally, and therefore offer little resistance to dislodgement of the restoration, is to use a glass ionomer luting agent. Circle one: T **F**
20. When replacing existing crowns in the maxillary anterior area, it is usually reasonable and prudent to remove the defective crowns, install provisional crowns, and postpone the final impression to a subsequent appointment. Circle one: **T** F
21. In their discussion of restoration overhangs (“Interactions between the gingiva and the margins of restorations”, J Clin Perio, 2003), Padbury *et al* present evidence that overhanging margins are associated with a plaque mass that contains an unusually large proportion of periodontal pathogens. Circle one: **T** F
22. If a tooth to receive a crown is broken off at the base of the gingival sulcus, which of the following desirable attributes is missing? (CIRCLE **ALL THAT APPLY**)
- a ferrule for the crown**
 - the biological width
 - a “buffer zone” between the planned margin of the crown and the gingival attachment**
23. According to guidelines given by Chiche and Harrison (*Impression considerations in the maxillary anterior region*, Compendium 1994), if the margins of a PFM crown must be placed sub-gingival strictly for esthetic purposes, they should be extended no farther than half the depth of the sulcus, to a maximum of 0.5-0.7 (will accept any answer within the range 0.5-1.0) mm.
24. The most appropriate way to manage chronic gingival inflammation associated with anterior teeth prepared for crowns is to apply an astringent at the time of impression-making. Circle one: T **F**
25. Which of the following qualities of an impression for a PFM crown can be assessed readily at the time of impression-making, *i.e.*, by examining the impression? (CIRCLE **ALL THAT APPLY**)
- three-dimensional accuracy (absence of distortion)
 - available space for occlusal porcelain
 - completeness of the impression (entire preparation is recorded)**