RESTORATIVE DENTISTRY D262 PROGRESS EXAMINATION # 2 April 15, 2010

NAME:

PRECLINIC SEAT NUMBER.

EXAMINATION NUMBER:

- 1. Please read all directions before starting the examination.
- 2. Your examination booklet should contain 6 pages with a total of 70 questions. Check to verify you have all of the examination.

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65+1

- 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. 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. 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.
- 7. Choose the best answer for each question. No questions will be answered during the examination.
- 8. Return the computerized answer form AND the entire examination booklet to the proctor.

1. It is more d a. d b. d c. tr d. tr e. o	ifficult to bond entin contains entin contains the presence of wo of the above one of the above	to dentin than to enamel becaus more mineralized tooth structure more water the smear layer makes it harder e e	e: e ≺ for the adhesive to w	et the dentin		
2. What is the recommended application for a # 14 rubber dam retainer?						
a. primary molars						
b. g	gingival retraction	on for a Class V lesion	d. 'small pre	molars	а т	
3. The current consensus is that dentin bonding agents bond primarily to tooth structure. a. chemically brechanically c. via hydrogen bonding						
A Trans illumination is a valuable diagnostic aid for detection of						
a. interproximal caries on posterior teeth d. pulpal involvement						
b.	fissure caries		e. interproxir	mal caries on anterior teeth		
С.	proximal resto	oration overhangs	\mathcal{O}			
5 The perce	ntana fillar cont	tent affects the resin composite'	e.			
a. s	helf life	b. level of fluoride release	c. settina tim	d physical	properties	
			e. eetang an		or operade	
6. Microfill resin composites generally have a percentage filler content than other types of resin composites.						
a.k		D. Ingrier				
7. Because of their relatively high degree of flexibility and polishability, resin composites are good cho						
restoring Clas	s V abfraction	lesions	2			
a. n	nacofilled	b microfilled	c. hybrid	d. conventional		
8 Acid etching of enamel does which of the following?						
a. creates micropores for micromechanical retention						
b. increases wetting						
c-increases surface energy						
d'all of the above.						
e. t	NO OF THE ADOVE	B				
9. The most deleterious effect of polymerization shrinkage of a resin composite is:						
a. ir	ncreased wear	b.microgap formatic	on C.	decreased stiffness		

10 Non-supporting cusps in a human Class 1 occlusal relationship are:

- a. the buccal cusps of the maxillary and mandibular arches
- D. the buccal cusps of the mandibular arch and the lingual cusps of the maxillary arch
- c. the incisal edges of the anterior teeth since they are involved in incisal function
- d. the buccal cusps of the maxillary arch and lingual cusps of the mandibular arch

11. A teen-aged patient presents with numerous proximal carious lesions that undermine the occlusal enamel. Which of the following is the treatment of choice?

- a. restore involved teeth with full coverage gold crowns
- b. restore involved teeth as rapidly as possible using dental amalgam or composite
- c. Place the patient on a prevention regimen and delay treatment until the effectiveness of home care is evaluated.
- Perform microbiological testing to determine the type of cariogenic bacteria present and delay treatment until antibiotics can be given for the offending bacteria.

12. Which of the following statements is true concerning the preparation for a composite veneer

- 1. Mesial and distal contact should be broken for improved esthetics 🗸
- 2. The preparation should penetrate 1/2 the thickness of the enamel

b. 1, 2, 5

- 3. The margin should always extend subgingival $\, imes \,$
- 4. Reduce the incisal edge to minimize the occurrence of protrusive interferences ×
- 5. The desired margin configuration is the chamfer 🗸

a. all of the above

c. 2, 4, 5

e. 4, 5

13. Streptococcus mutans is considered to be a principle etiologic agent of caries because it produces organic acids and it a metabolizes substrate form saliva c. derives energy from enamel constituents

c shear

forms a gelatinous matrix

d. lives symbiotically with Lactobacillus acidophilus

2.5

14. At point P1 (shown in the diagram to the right) the arc of rotation is tangent to the surface of the preparation and the cement film is subject only to ______ forces.

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a. compression b. tension
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15. At point P2 (occlusal to P1) shown in the diagram to the right the cement film is subject only to ______ forces.

a. compression

b. tension c. shear

16. At point P3 (apical to P1) shown in the diagram to the right the cement film is subject only to forces.

)tension

a. compression

17. 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.

c. shear

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

18. In selecting a dental base, the dentist should give greatest consideration to which of the following

- a. the biocompatibility of the base
- b. the strength of the base

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C the thickness of the remaining dentin

19. 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; statements two is false
b. both statements are false	d. statement one is false; statement two is true

20. 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

		21. 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 on the facial, pulpal, and lingual walls of the preparation. The next step in treatment is to
6		(a) extend the outline formc. remove the caries with a large round bur on high speedb. remove the caries with a spoon excavatord. remove the caries with a large round bur on slow speed
		22. The rubber dam retainer that should be used for isolation of a Class V lesion? a. 212 b. W56 c. 14A d. W2
		23. A tooth requires a large amalgam pin buildup as a foundation restoration. When pins are included in an amalgam buildup, the strength of the amalgam is a. increased c. unchanged
1	~	24. The reduction of which of the following represents the <u>most</u> significant advantage of the acid-etch technique a. pulpal irritation c. polymerization shrinkage of the matrix b. microleakage d. coefficient of thermal expansion
		 25. 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
		Concerning questions 26 – 38 . Mark (A) on the computerized answer sheet for true, mark (B) for false. a. True b. False
1		 A full coverage cast gold restoration should be used in a mouth with uncontrolled caries because the full veneer crown is a restoration that replaces lost tooth structure and protects the tooth against the biological causes of the caries. 27. Gingival Class 2 cavomargins ideally terminate gingival to both the contact and the Certics 28. 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. 29. The path of insertion of a preparation must parallel the adjacent proximal contacts or it will be prevented from seating. 30. A crosscut bur at low speed produces the roughest surface. 31. Inadequate isthmus depth is the most likely cause for isthmus fracture of Class 2 amalgam. 32. Cross-cut burs can be used for removal of old restorations, but the horizontal ridges they produce on tooth structure make them unacceptable for crown preparation. 33. The level to which a base is built should never compromise the desired cavity preparation depth resulting in inadequate restorative material thickness. 34. If a cavity is of ideal depth, no liner or base is indicated. However, cavity varnish or dentin adhesive should be used prior to amalgam placement to reduce microleakage and seal the dentinal tubules. 35. Mature plaque is primarily anaerobic. 36. When examining a patient for caries, care must be exercised to distinguish white spots of incipient caries from developmental white spot hypocalcifications of enamel. Incipient caries will partially or totally disappear visually when the enamel is hydrated (wet), while hypocalcified enamel is unaffected by drying and wetting. 37. A rrested (remineralized) lesions can be observed clinically as intact, but discolored, brown or black spots. These discolored, remineralized, arrested caries areas are intact and are more resistant to subsequent caries attack than the adjacent unaffected enam
		 39. A large carious lesion on the distal surface of a maxillary central incisor involving the incisal angle is a 1. Class I lesion 2. Class II lesion 3. Class IV lesion
		a. 1 only b. 2 and 5 c. 3 and 5 d. 3 only e. 4 only
		40. Clinical interpretation of pain from pulpal inflammation (hyperemia) is somewhat empiric, but nonetheless important to the successful practice of operative dentistry. If an irritant, such as touching ice to the tooth, causes pain that lingers more than 15 seconds after removal of the irritant, the condition of the pulp is called and resolution of the condition is possible by a. reversible pulpitis: root canal therapy b. reversible pulpitis; immediate restorative treatment (operative dentistry) c. Irreversible pulpitis; root canal therapy d. irreversible pulpitis; immediate restorative treatment (operative dentistry)

\$

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F?



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

e. 1 only



59. Soft tissue responds negatively to margins placed in the gingival crevice. Therefore, margins for full gold crowns should be placed in a supragingival location whenever possible.

Both statements are true a.

Both statements are false b.

c. Statement one is true; statement two is false

d. Statement one is false; statement two is true

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

- prevent any rotational tendencies during cementation a.
- b. help guide the casting to place during cementation
- provide resistance and retention form C.

d two of the above

e, all of the above

61. All of the following are true regarding the use of the knife edge finish line for cast gold restorations except:

a. the axial reduction may fade out instead of terminating in a definite finish line

b. difficulty in identification may make waxing of the restoration difficult

c. it is more susceptible to distortion under occlusal forces

d can result in undercontoured restorations

62. After the dentist has completed an etching procedure on a Class III composite preparation, the preparation becomes contaminated with saliva. In response, the dentist should do which of the following?

Blow away the saliva with air, then proceed a.

Rinse away the saliva with water, dry the preparation, then proceed b.

Wipe away the saliva with a cotton pellet, rinse the preparation with water, dry it with air, then proceed

Rinse away the saliva with water, dry the preparation with air, then repeat the etching procedure /d.

63. What is the C-factor for a Class IV restoration (one bonded surface and 4 unbonded surfaces) (b.0.25 a. 4 c. 0.4 d. 2.5

64. 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 degrees is necessary just to insure the absence of undercuts. that a minimum taper of b. 3 - 5; 15 - 20 d 2-6; 12 a. 2-6;18 c. 6; 8

65. To achieve proper shade matching it may be necessary to clean the operating site prior to performing the operative procedure to remove superficial stains. Prophy paste containing flavoring agents, glycerine and fluoride are best suited for this purpose.

- both statements are true a.
- Ostatement one is true; statement two is false
- both statements are false b. d. statement one is false; statement two is true.

66. Internal stresses can be reduced in restorations subject to potentially high disruptive contraction forces (e.g. Class | preps with a high C-factor) by using which of the following techniques?

1. "soft-start" polymerization instead of high-intensity light curing

2. incremental additions to reduce the effects of polymerization shrinkage

3. a stress-breaker liner, such as filled dentinal adhesive, flowable composite, or resin modified glass ionomer,

all of the above a.

b one of the above

c. two of the above

67. A composite restoration is wider than the diameter of the light tip of the curing unit. In this situation, the restoration is cured by moving the tip over the surface for the required time

placing the tip stepwise over each area and exposing each area for the required time D.

positioning the tip far enough from the surface to illuminate the entire surface C.

centering the tip on the surface and curing the entire restoration from this position d.

68. The preferred gingival finish line for a full gold crown is a a. feather edge b. shoulder c, chamfer

d. shoulder with a bevel

69. The critical pH at which enamel dissolution first begins to occur is a. 6.5 c. 4.5 d. 7.5 b. 5.5

70. The matrix phase of most composite resins is composed of

a. epoxy resin

d. an inorganic filler material e. a coupling agent

acrylic resin b. **BIS-GMA** resin