

Materials

1. Marginal leakage in dentin bonding is caused by:
 - a. Differences in coefficients of thermal expansion of resin and tooth structure
 - b. Polymerization shrinkage
 - c. Lack of a self sealing mechanism
 - d. Occlusal loading
 1. a & b
 2. a, b, & c
 3. a, b,& d
 4. all above

2. Weaker bonds to dentin are caused by:
 - a. dentin contains more mineralized tooth structure than enamel
 - b. dentin contains more water than enamel
 - c. the smear layer makes wetting by adhesive more effective
 - d. fluid in the dentin tubules reduces the stability of the composite resin to dentin bond
 1. a, b
 2. b, d
 3. a, c
 4. a, d

3. The use of DBA's (dentin bonding agents) when dentin is exposed in a preparation prior to cementation of a cast ceramic restoration or the placing of a composite restoration
 - a. Increase bond strength
 - b. Reduce micro leakage
 - c. Reduce post operative sensitivity
 - d. Increase possibility of fracture of restoration
 1. a, c, d
 2. a, b, d
 3. a, b, c
 4. a, b, c, d

4. In the use of current generation DBA's
 - a. They decrease dentin sensitivity
 - b. film thickness is not a factor in successful bonding
 - c. mixes with the smear layer to produce the best bond strength
 - d. don't use conditioners
 1. a, b
 2. a, b, c

- 3. c, d
- 4. d

5. There are essentially only minor differences between 1st, 2nd, and 3rd dentin bonding systems

- True
- False

6. 3rd, 4th, and 5th generation dentin bonding systems all use a conditioner, primer and adhesive

- True
- False

7. 5th generation dentin bonding agents

- a. combine conditioner (etching) and primer
 - b. combine conditioner, primer and adhesive
 - c. require separate etching of dentin and enamel
 - d. mix adhesive with the smear layer to form a hybrid layer
- 1. a, c
 - 2. a, d
 - 3. b
 - 4. all of above

8. The procedure of etching both enamel and dentin the same length of time is now standard for current DBA's

- True
- False

1. Current generations of dentin bonding agents:

- a. Bond to minerals in the smeared layer of dentin.
- b. Remove the smeared layer of dentin.
- c. Form a chemical bond to interbulular dentin.
- d. Form a micro-mechanical bond to intertubular dentin
- e. Use hydrophilic monomers.

A. a,c,e B. b,c,e C. b,d,e D. a,c,d E. b,c,d

2. Porcelain laminate veneers are optimally cemented with:

- a. Resin-modified glass-ionomer cement.
- b. Dual-cure resin cement.
- c. Light-cure resin cement.
- d. Chemical-cure resin cement.
- e. Glass-ionomer cement.

3. Metal castings, including Type III gold and metal-ceramics are optimally cemented with:

- a. Resin-modified glass-ionomer cement.
 - b. Light-cure resin cement.
 - c. Chemical-cure resin cement.
 - d. Zinc-phosphate cement.
 - e. Polycarboxylate cement.
4. All-ceramic crowns are optimally cemented with:
- a. Resin-modified glass-ionomer cement.
 - b. Light-cure resin cement.
 - c. Chemical-cure resin cement,
 - d. Dual-cure resin cement.
 - e. Glass-ionomer cement.
5. Based on the research of H.O. Heymann, cervical abfraction lesions are optimally restored using:
- a. Macrofilled composite resin.
 - b. Microfilled composite resin.
 - c. Compomer material.
 - d. Resin-modified glass-ionomer.
 - e. Hybrid composite resin.
1. Irreversible hydrocolloid impressions should be poured:
- a. Within 10 minutes.
 - b. Within 1 hour.
 - c. Within 24 hours.
 - d. As soon as possible
 - e. At the operator's convenience.
2. The most important manipulative variable with gypsum products is:
- a. Water temperature.
 - b. Correct water/power ratio.
 - c. Spatulation time.
 - d. Vacuum mixing.
 - e. Use of special liquid.
3. Removable partial denture frameworks are fabricated with:
- a. Gypsum bonded investments.
 - b. Phosphate bonded investments.
 - c. Ethyl-silicate investments.
 - d. Pyroplastic investments.
 - e. Hygroscopic investments.
4. The catalyst with addition reaction silicone materials is:
- a. Lead peroxide
 - b. Lead dioxide

- c. Copper oxide
- d. BIS-GMA
- e. Chloroplatinic acid

5. Which of the following materials would exhibit the property of syneresis?

- a. polysulfide rubber
- b. impression compound
- c. irreversible hydrocolloid
- d. reversible hydrocolloid
- e. polyether rubber

A. a,c,e B. a,c,d C. c,d,e D. b,c E. b,d

6. The optimum cross-sectional thickness for an elastomeric impression materials is:

- a. 0.5 mm.
- b. 1.0 mm.
- c. 2.0 mm.
- d. 4.0 mm.
- e. 6.0 mm.

7. A cast metal removable partial denture framework would be fabricated with:

- a. Type I gold.
- b. Type II gold.
- c. Type III gold.
- d. Type IV gold.
- e. Gold foil.

8. Which of the following metals is considered non-noble?

- a. gold
- b. platinum
- c. palladium
- d. ruthenium
- e. silver

9. Which of the following is true regarding acrylic resin custom trays for use with elastomeric impression materials?

- a. They should be made 24 hours in advance.
- b. Occlusal stops should be provided on functioning cusp tips.
- c. Occlusal stops should be provided on non-functioning cusp tips.

- d. Adhesive should be painted on the tray just before making the impression.
- e. Adhesive should be painted on the tray at 8-15 minutes prior to making the impression.

A. a,b,d B. a,c,d, C. a,b,e, D. a,ce, E. c,e

10. In order to effectively heat-treat a gold onlay, the restoration is:

- a. Adjusted in the mouth as a solid solution and cemented as in intermetallic compound.
- b. Adjusted in the mouth as a eutectic and cemented as a solid solution.
- c. Adjusted in the mouth as an intermetallic compound and cemented as a eutectic.
- d. Adjusted in the mouth as an intermetallic compound and cemented as a solid solution.
- e. Adjusted in the mouth as a solid solution and cemented as a eutectic.

1. The matrix with most composite resin restorative materials is:

- a. TEG-DMA
- b. PMM
- c. BIS-GNA
- d. HEMA
- e. Poly-ethyl-methacrylate

2. The most common agent for etching enamel is:

- a. 10% polyacrylic acid
- b. 37% polyacrylic acid
- c. 10% phosphoric acid
- d. 37% phosphoric acid
- e. 8% oxalic acid

3. Which of the following cements are biocompatible with the pulp?

- f. zinc-phosphate
- g. glass-ionomer
- h. polycarboxylate
- i. resin-modified glass-ionomer
- j. silico-phosphate

A. b,c B. c,d C. a,b,c D. a,b E. All of the above

4. Which of the following are true regarding opaque porcelains?

- a. They are tetra-valent oxides.
- b. They are di-valent oxides
- c. They form a true chemical bond with certain metals.
- d. They are smoother than enamel porcelains.
- e. They fire at a lower temperature than enamel porcelains.

A. a,c,d B. b,c,d C. a,d,e D. b,e E. a,c

5. The casting shrinkage of base-metal alloy is:

- a. 0.05%
- b. 1.2%
- c. 1.4%
- d. 1.8%
- e. 2.4%

6. The ideal thickness of the oxide layer for metal-ceramic bonding is:

- a. 25 microns
- b. 50 microns
- c. 75 microns
- d. 100 microns
- e. Monomolecular

7. A patient presents with small, well-defined, root caries lesions on teeth #22 and #27. The optimum restorative material for the situation is:

- a. Hybrid composite resin.
- b. Directo gold.
- c. Compomer.
- d. Resin-modified glass-ionomer.
- e. Silicate

8. The 2 major problems with posterior composite resin materials are:

- a. wear resistance
- b. bulk fracture due to lack of tensile strength
- c. difficulty in attaining a good proximal contact
- d. difficulty in sealing the gingival margin of a class II preparation
- e. precise color matching

A. a,c,e B. b,d C. c,d D. a,c,d,e E. a,e

9. A patient present with incipient pit and fissure caries on tooth #30. The optimum restorative procedure would be:

- a. A minimal Class I silver amalgam
 - b. Directo gold
 - c. A pit and fissure sealant
 - d. A preventive resin restoration
 - e. A Type II gold inlay
10. Which of the following are factors regarding wear of posterior composite resin restorations?
- a. Location in the dental arch.
 - b. Surface area.
 - c. Type of material.
 - d. Parafunctional habits of the patient.
 - e. Chemistry of the co-monomer.
- A. All of the above B. a,b,c,d C. a,b,c D. C only E. c,d
5. What “direct” restorative material is the “fillup of choice” for a Class V lesion on tooth #18?
- a. amalgam
 - b. composite
 - c. glass ionomer
 - d.
1. The optimum bulk of alginate impression material to reduce distortion and to obtain the most accurate reproduction of a patient’s oral tissues is:
- A. 1-2 mm
 - B. 2-4 mm
 - C. 4-6 mm
 - D. 6-8 mm
 - E. As thin as possible
2. The most important element of mixing both alginate impression materials as well as gypsum products is:
- A. sterilized instruments
 - B. accurate water/powder ratios
 - C. accurate alcohol/powder ratios
 - D. proper mixing time
 - E. proper setting time
3. Impression plaster is an example of which type of gypsum product?
- A. Type I

- B. Type II
- C. Type III
- D. Type IV
- E. Type V

4. What dental material wears at the same rate (attrition) as that of tooth enamel?

- A. amalgam
- B. gold
- C. composite resin
- D. porcelain
- E. zinc-phosphate cement

5. What is the proper amount of time to wait before separating a gypsum cast from an alginate impression?

- A. 5-10 minutes
- B. 10-20 minutes
- C. 20-45 minutes
- D. 45-60 minutes
- E. 24 hours

6. In the classification of gypsum products which has the greatest compressive strength?

- A. Type I
- B. Type II
- C. Type III
- D. Type IV
- E. Type V

7. Which type of gypsum product do you use to pour a diagnostic cast of your patients?

- A. Type I
- B. Type II
- C. Type III
- D. Type IV
- E. Type V

8. Alginate impressions must be poured within _____ to minimize distortion and preserve accuracy.

- A. one hour
- B. 24 hours

- C. 45 minutes
- D. 30 minutes
- E. 10 minutes

9. A set impression of alginate is _____ percent water. (by weight)

- A. 20
- B. 40
- C. 60
- D. 80
- E. 90

10. The most important property of a dental restorative material is:

- A. the ease of handling by RDA and DDS
- B. the ability to seal the cavity preparation
- C. the ability to decrease thermal sensitivity
- D. its cost
- E. all of the above

11. The proper term for an artificial substance which replaces lost tooth structure and form, function, and esthetics is:

- A. amalgam
- B. inlay
- C. onlay
- D. filling
- E. restoration

12. If you separated a gypsum stone cast from an alginate impression beyond the optimum time interval, you could expect the cast to be:

- A. slightly larger due to expansion
- B. less dense due to water absorption
- C. more dense due to expansion
- D. more dense due to loss of water
- E. less dense due to loss of calcium sulfate hemihydrate

15. Which of the following are true statements about PVS impression materials?

- a. PVS has no by products.
- b. The catalyst is lead dioxide.
- c. Requires the use of tray adhesive.
- d. Can be contaminated by the powder on latex gloves.
- e. Has greater tear strength than alginate.

A) a,c,d,e B) a,c,e C) a,b,d,e D) c,d,e E) all of the above

45. The proper use of the Whaledent Pindex system requires:

- a. The base to be flush with the die for accuracy.
- b. The sleeve in the base be flush with the die.
- c. That all long pins be exposed at least 3 mm for access and to allow for debris to escape.
- d. The short pins to be exposed to allow for debris to escape.
- e. Where the diameter of the tooth permits, the pins should be placed within the circumference of the prepared teeth and approximately 4 mm from the center of one pin to the center of the other pin.

A) a,b,c,e B) a,c,e C) b,c,d,e D) a,b,e E) c,d

9. When testing a cemented restoration for retention the cement is placed under what type(s) of stress?

- a. tensile
- b. compressive
- c. shear
- d. a combination of compressive and shear
- e. a combination of shear and tensile

13. Which of the following might result in having fins on your casting?

1. The investment had an improper water/powder ratio .
2. Entrapment of air when investing the wax pattern.
3. Improper placement of the liner in the casting ring.
4. Roughness at the junction of the wax pattern and the sprue

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

22. Why is it necessary to wait 24 hours for complete polymerization of a custom acrylic tray?

- a. To allow the tray to achieve maximum dimensional stability.
- b. To allow the tray to achieve maximum strength.
- c. To allow the tray to achieve maximum rigidity.
- d. a, b, & c
- e. a, b

1. The hybrid layer (zone) is:

- a. the interface between the filler and resin in a hybrid composite
- b. responsible for the high strength of the hybrid composite

- c. junction between the bonding agent and the composite
 - d. the interface between the bonding agent and the enamel
 - e. none of the above
2. Which of the following acids is indicated for etching porcelain?
- a. phosphoric acid
 - b. nitric acid
 - c. hydrofluoric acid
 - d. citric acid
 - e. sulfuric acid
3. Which of the following acids is indicated for etching enamel?
- a. 20% phosphoric acid
 - b. 37% phosphoric acid
 - c. hydrofluoric acid
 - d. citric acid
 - e. sulfuric acid
4. Which of the following composite materials is the least polishable?
- a. Hybrid
 - b. Micro-hybrid
 - c. Macrofilled
 - d. Microfilled
5. Which of the following composite materials is not indicated to restore the incisal edge of a tooth?
- a. Micro-hybrid
 - b. Macrofilled
 - c. Hybrid
 - d. Microfilled
6. Which of the following cements would be the cement of choice for the cementation of a porcelain inlay/onlay?
- a. Light cured resin
 - b. Zinc phosphate
 - c. Dual cured resin
 - d. Glass ionomer
 - e. Dual cured modified glass ionomer
7. Which of the following statements is true concerning OptiBond Solo?
- a. It is a dual cured bonding agent
 - b. It should be lightly air dried to evaporate the solvent.
 - c. It is used as a surface sealant for a completed posterior restoration.
 - d. It will polymerize in the presence of moisture.
 - e. b & d

8. Point 4 composite would be classified as what type of composite.
- Microfilled
 - Large particle
 - Hybrid
 - Micro-hybrid

9. Permalute A & B:
- Is a dual cured bonding agent.
 - Should be air dried to evaporate its solvents
 - Is used only with microfilled composites.
 - Is mixed together and then applied to the tooth.

A) a,b B) c,d C) a,d D) a,b,d E) b,c

10. Adjusting or modifying the color of a porcelain veneer can best be accomplished by?
- Staining the surface with porcelain stains.
 - Using different colors of luting composite.
 - Adjusting the surface texture to create a match with the adjacent teeth.
 - The shade of the porcelain cannot be altered and the veneer needs to be remade.

2. An impression made with which of the following materials will distort the least if you are not able to pour the impression for one day?

- Reversible hydrocolloid
- Polyether
- alginate
- Poly-vinyl siloxane
- polysulfide rubber

11. All cements exhibit their greatest strength under what type of forces?

- Compression
- Shear
- Tension
- Combination of shear and compression
- Combination of compression and tension

18. The width of the blade of the 6 1/2 - 2 1/2 -9 hoe is:

- .5 mm
- 1 mm
- 1.5 mm
- 6.5 mm
- .65 mm

19. The chloroplatinic acid catalyst in poly vinyl siloxane impression materials is inhibited by:

1. Some vinyl gloves
 2. Some latex gloves
 3. Sulfur
 4. 2 & 3
 5. All of the above
20. Which of the following materials exhibits the property of syneresis?
1. Polysulfide rubber
 2. Polyether rubber
 3. Condensation silicone
 4. Addition reaction silicone
 5. None of the above
17. When examining the PVS impression you made of your preparations you notice that the surface of the impression is irregular and the material on the surface is not polymerized. The rest of the material is properly polymerized. What is/are the possible causes of this problem?
- A. Powder on the gloves
 - B. Chloroplatinic acid in the impression material was old
 - C. Moisture on gloves
 - D. A,C
 - E. None of the above
34. All cements exhibit their greatest strength under what type of forces?
- A. Compression
 - B. Shear
 - C. Tension
 - D. Combination of compression and shear
 - E. Combination of shear and tension
41. Which of the following might result in fins on your casting?
- a. The investment had an improper water/powder ratio .
 - b. Entrapment of air when investing the wax pattern.
 - c. Improper placement of the liner in the casting ring.
 - d. Roughness at the junction of the wax pattern and the sprue
- A. a, b, c,d A. a,b,c C. c,d D. a,b E. a,c
42. Which of the following might result in a defective margin on your casting?
- A. Margin of the wax pattern breaks during investing.
 - B. Roughness at the junction of the sprue and the crater former.
 - C. Entrapment of air when investing the wax pattern.

- D. A & C
- E. A,B, & C

43. What effect could a nodule left on the internal axial surface of a cast restoration have on the restoration at the time of the try-in in the patient's mouth? Assume the casting was adjusted properly on accurately mounted stone casts.

- a. The casting will be in hyper-occlusion.
- b. The casting will have open margins.
- c. The casting will be in hypo-occlusion.
- d. The casting will be tight.

- A. a b) b c) a,b,d d) b,c e) b,c,d

40. When waxing adjacent contacts areas you should:

- a. Add wax to both contact areas before investing.
- b. Contour both contact areas ideally.
- c. Contour one contact area ideally and add a small amount of wax to the adjacent contact before investing.
- d. Over-contour one contact area and under-contour the other.
- e. none of the above

16. When testing a casting for retention, the cement on the occlusal surface of the preparation is mostly subjected to what type of stress?

- A) Compressive B) Shear C) Tensile D) A & B E) A & C

33. When treating a patient in the clinic you notice that the surface of the PVS impression you made is slightly different than the surface of the patient's teeth. Which of the following statements accurately explains the problem and explains why the problem occurred.

- a. The surface is distorted due to excessive polymerization shrinkage of the impression material.
- b. The surface of the teeth may be contaminated by the powder on your gloves.
- c. The surface of the teeth may be contaminated by the rubber dam you placed to do the cleanout procedure.
- d. The surface is distorted due to a lack of polymerization of the impression material.

- A) b, d B) c,d C) a,b D) d E) b,c

43. Which of the following are true statements about PVS impression materials?

- a. They will not polymerize in the presence of moisture.
- b. The catalyst is chloroplatinic acid.
- c. It is most accurate when confined to a custom tray with 3-4 mm of spacer.
- d. They have good dimensional stability as it has no byproducts.

e. They have greater tear strength than polyether impression materials.

A) a,c,e B) a,b,e C) b,d,e D) b,c,d,e E) b,d

4. Which all ceramic crown systems advocates utilizing a three unit fixed partial denture restoration in some limited situations.
- a. Procera; Nobel Biocare
 b. In Ceram; Vita
 c. Empress 1; Ivoclar
 d. Dicor; Dentsply
 e. Porcelain Jacket Crown
39. Which facts listed below is ideal for maximum bond strength in a porcelain fused to metal restoration?
- a. Mono-molecular oxide layer.
 b. Bivalent-molecular oxide layer.
 c. Multi-molecular oxide layer.
 d. Negative electron charged oxide layer.
 e. Positive electron charged oxide layer.
40. The ideal gap distance for a post-ceramic solder joint is:
- a. 0.1 mm
 b. 0.15 mm - 0.3mm
 c. 0.3 mm - 0.5 mm
 d. 0.5 mm
 e. 0.5 mm - 0.75 mm
41. The ideal gap distance for a pre-ceramic solder joint is:
- a. 0.1 mm
 b. 0.15 mm - 0.3mm
 c. 0.3 mm - 0.5 mm
 d. 0.5 mm
 e. 0.5 mm - 0.75 mm
5. Which of the following statements is/are not true regarding the impression making and model pouring procedures?
1. It is critical that the temperature of the water to be mixed with the alginate powder must be room temperature and should not be altered to maximize the strength of the impression material.
 2. It is preferable to pour your diagnostic impressions in impression plaster to expedite the process.
 3. The impression tray must be removed in a vertical direction in order to avoid tearing of the material as alginate has poor tear strength.
 4. You cannot assume that the stock trays are adequately extended for all patients to make excellent impressions of the necessary anatomical structures.
 5. The impression tray must be seated in a vertical direction in order to avoid trapping air bubbles within the impression material.

- a. 1, 2, & 5 *
- b. 3 & 5
- c. 1, 3, 4, & 5
- d. 2 & 4
- e. 1, 2 & 4

1. Shear stress is:
- A. Two forces directed parallel to each other but in opposite directions.
 - B. Two forces in line directed toward each other.
 - C. Two forces in line directed away from each other.
 - D. Diagonal forces
3. The two basic stresses on dental materials are:
- A. Axial and shear
 - B. Compression and axial
 - C. Tension and Compression
 - D. Shear and horizontal.
6. Photocuring lights do not affect the direction in which the composite shrinks.
- A. True
 - B. False
9. Caries disclosing dyes act by staining:
- A. Bacteria
 - B. Protein
 - C. Infected dentin only.
 - D. Demineralized enamel.
13. Which statement about color is true?
- a. Chroma can be considered the name of the color.
 - b. Value refers to the relative amount of brightness.
 - c. Hue refers to the saturation of color.
 - d. Metamerism is the phenomenon of an object's appearing to be different colors when viewed under different light sources.
- a & c
 - c & d
 - b only
 - b & d
 - All of the above
17. When matching a shade, the clinician should stand between the patient and the light source.
- A. True
 - B. False

18. The material of choice for a cooperative 82-year-old patient presenting with multiple recurrent root caries is:

- A. spherical amalgam
- B. light cured composite
- C. glass ionomer
- D. reinforced zinc oxide-eugenol.

21. Inadequate polymerization of composites can cause:

- 1. compromised strength
- 2. microleakage
- 3. discoloration
- 4. post operative sensitivity

- A. (1) and (2)
- B. (1) and (3)
- C. (1), (2), and (3)
- D. All of the above.

23. In bonding composite to dentin, (1) air-thinning primer will not adversely affect the bond strength while (2) air-thinning the resin will have an adverse effect on bond strength.

- statement (1) is true, statement (2) is false
- statement (1) is false, statement (2) is true
- both statements are true
- D. both statements are false

26. Materials that contain eugenol inhibit setting of various resin cements and composites.

- A. True
- B. False

27. Dehydration of dentin causes expansion of collagen meshwork thereby allowing the hydrophobic primer to infiltrate the collagen mesh.

- A. True
- B. False

35. If properly placed, an amalgam restoration will exhibit less microleakage over time due to the buildup of corrosion products at the interface between the tooth and the restoration.

- A. True
- B. False

36. The presence of larger filler particles in hybrid composites make it more wear resistant. The more resin in the matrix of composite, the lower the coefficient of thermal expansion and polymerization shrinkage.

- A. the first statement is true, the second statement is false
- B. the first statement is false, the second statement is true
- C. both statements are true
- D. both statements are false

2. According to the law of beams a fixed partial denture with a three pontic span will flex ____ times as much as a single pontic span

- a. 8 times
- b. 20 times
- c. 16 times
- d. 27 times
- e. 2 times

18. The polymerization expansion of polymethyl methacrylate is?

- a. 7%
- b. 14%
- c. 10%
- d. 35%
- e. None of the above

19. The connectors of a provisional fixed partial denture are often purposely over contoured to

- a. Provide Esthetics
- b. Protect the pulp
- c. Prevent enamel fracturing
- d. To improve strength
- e. Maintain the opposing occlusion relationship.

20. The following are disadvantages of using Poly Methyl Methacrylate as a provisional material.

- 1. High exothermic heat increase
 - 2. Low abrasion resistance
 - 3. Free monomer toxic to the pulp
 - 4. High Volumetric shrinkage
-
- a. 1,2
 - b. 1,2,3
 - c. 2,4
 - d. 2,3

e. 1,2,3,4.

22. The best material to have in contact with the tissue on the gingival surface of the pontic of a fixed partial denture is?

- a. Gold
- b. Polished Gold
- c. Polished Porcelain
- d. Acrylic resin
- e. Material does not matter it's the polish of the material surface that does.

27. The main advantage of using Poly Vinyl siloxane as an impression material in fixed prosthodontics is

- a. It is hydrophilic
- b. Long working time
- c. Low cost
- d. Dimensional stability
- e. Easier to pour than other impression materials

28. 1. A custom tray improves the accuracy of an elastomeric impression
2. It does this by limiting the volume of material

- a. 1 is true 2 is false
- b. 1 is false 2 is false
- c. 1 is false 2 is true
- d. 1 is true 2 is true and 2 is the correct explanation for 1
- e. 1 is true 2 is true but 2 is not the correct explanation for 1

29. Why is it necessary to wait 24 hours for complete polymerization of a custom acrylic tray?

- a. To allow the tray to achieve maximum dimensional stability
- b. To allow the tray to achieve maximum strength
- c. To allow the tray to achieve maximum rigidity
- d. a,b,c
- e. a,b.

30. What is the name of the catalyst in PVS impression materials

- a. Palladium
- b. Chlorplatinic acid
- c. Sulfur
- d. Silica
- e. barium

31. Which of the following is the most important pre-requisite of a custom tray?

- a. Fabrication 24 hours in advance.
- b. Rigidity
- c. Well extended
- d. Placement of adhesive 15 minutes in advance.
- e. Smooth

32. Which of the following is a hydrophilic impression material?

- a. Alginate
- b. PVS
- c. Polyether
- d. Condensation silicone
- e. Polysulfide

34. The purpose of soaking the retraction cord in an astringent is to

- a. Stop bleeding
- b. Cause transient ischaemia to shrink the tissue.
- c. Improve the health of the gingiva
- d. To anaesthetize the gingival prior to making the impression
- e. To improve the handling of the retraction cord.

35. Why should epinephrine be used with caution?

- 1. Dosage control is a problem
- 2. It causes tachycardia
- 3. It is not a good hemostatic agent
- 4. It causes tissue damage more than other chemical agents
- 5. It discolors the gingival

- a. 1,2,3
- b. 2,3,5
- c. 1,4,5
- d. 1,2
- e. 3,5

36. Banthene or Probanthene as an antisialogogue is contraindicated in patients with

- 1. glaucoma
- 2. asthma
- 3. congestive heart failure
- 4. lactating females
- 5. kidney stones

- a. 2,3,4.
- b. 1,2,3,4.
- c. 2,5.
- d. 3,5
- e. 3.

37. 1. Prior to taking an impression the retraction cord must be soaked with water before removal from the gingival sulcus.

2. This prevents tearing of the sulcular epithelium and consequent bleeding.

- a. 1 is true 2 is true and is a correct explanation for 1
- b. 1 is false 2 is false.
- c. 1 is true 2 is true but it is not a correct explanation for 1.
- d. 1 is false 2 is true.
- e. 1 is true 2 is false.

44. 1. Vacuum mixing of gypsum products results in a decrease in porosity

2. This decrease in porosity results in a concomitant increase in strength.

- a. 1 is true 2 is true but is not a correct explanation of 1
- b. 1 is false 2 is false
- c. 1 is false 2 is true
- d. 1 is true 2 is true and is a correct explanation of 1.
- e. 1 is false 2 is false and is a correct explanation of 1.

45. The gypsum material you would use for mounting casts would be

- a. Impression plaster
- b. Model plaster
- c. Dental Stone
- d. High strength dental stone
- e. High expansion stone.

46. According to ADA specification 19, type IV and type V gypsum products are capable of reproducing a _____ micron wide line

- a. 5
- b. 15
- c. 20
- d. 50
- e. 100

1. What impression material is dimensional stable and can withstand multiple pour-ups?

- A. Polysulfide
- B. Polyether
- C. Alginate
- D. Condensational silicone
- E. None of the above

2. What is the ideal thickness for alginate when making an alginate impression?

- A. 0.5-1mm
- B. 1-2mm
- C. 2-3mm
- D. 4-6mm
- E. 6-8mm

3. What is the ideal thickness for elastomeric impression materials?

- A. 0.5-1.5mm
- B. 1.5-2.5mm
- C. 2.5-4mm
- D. 4-6mm
- E. 6-8mm.

4. What is the maximum time you can wait after impression before you pour up a polysulfide impression?

- A. Need to pour up ASAP
- B. 15 minutes
- C. 45 minutes
- D. 2 hours
- E. Indefinitely .

3. Proper tissue retraction is accomplished by using

- a. two #1 cords
- b. two #0 cords
- c. one #0 cord and one #1 cord
- d. one #1 cord and one #2 cord

2. In anticipating taking an impression of an indirect preparation, you should always have prepared

- a. 2 custom full arch impression trays
- b. 1 custom full arch impression tray
- c. no custom trays as it is bet to make them after the preparation is completed
- d. sectional trays only

4. Retraction cord:

- a. Allows the completion of a preparation while minimizing gingival trauma
- b. Establishes the proper gingival extension
- c. Provides visualization of subgingival areas of the preparation
- d. A & B
- e. B & C
- f. A & C

8. The active ingredient in Hemodent is:

- a. aluminum sulfate
- b. poly vinyl siloxane
- c. aluminum chloride
- d. potassium chloride
- e. None of the above

9. A custom tray must:

- a. Extend 2 mm apical to the crest of the free gingival margin.
- b. be rigid
- c. be made the same day
- d. have adequate time to polymerize (approx. 24 hours)
- e. have adhesive placed at least 15 minutes before use

A) a,b,c B) a,c C) a,b,d,e D) b,d,e E) all of the above

19. Which statement(s) on margination of a wax pattern are true?

- a. The wax should be slightly overcontoured to allow for proper contouring in gold.
- b. After margination of the wax pattern it should be removed from the die to evaluate for proper internal adaptation and then replaced on the die to verify marginal fit.
- c. The proper way to evaluate for marginal seal is to look closely at the margin under good light, viewing the margin parallel to the surface of the die.
- d. When marginating, the wax should be re-adapted by first heating the wax with a hot instrument so that the wax becomes soft but not molten.

A) a,b,c B) b,c C) b,c,d D) c E) None of the above

50. When evaluating your final wax pattern prior to margination you should verify the following are correct:

- a. The internal duplicates the die and is free of voids, folds or irregularities
- b. The external surface of the pattern is free of irregularities and is smooth.
- c. The contact area is concaved and rough to allow for finishing in gold.
- d. Verify that the wax pattern is not in hyperocclusion by placing the articulator pin on zero and closing the articulator several times to insure the pin hits the incisal table.
- e. The proximal contact areas are the proper dimension.

A) a,b,d,e B) a,b,e C) a,c,d D) a,b,d E) c,d

11. The primary advantage of the Palodent Matrix band for the class II composite restoration is:

- a. Excellent matrix for restorations with deep gingival extensions as it does not require a wedge.
- b. Thinner than other available matrix material.
- c. The clear matrix material allows for better light polymerization.
- d. The material is malleable therefore it is more easily burnished.
- e. a & d

12. Which of the following will help eliminate the air inhibited layer at the margin of a restoration bonded with a composite luting material?

- a. Remove all of the excess luting material from the margins prior to light curing.
- b. Cover the margins with a water-soluble jell like Triad lubricant.
- c. Leave a small amount of excess luting material at the margins prior to light curing.
- d. b & c
- e. a & b

13. The contact lens effect makes it possible to place a porcelain veneer finish line at or above the crest of the free gingival margin and still maintain an almost imperceptible junction between the restoration and the tooth.

Which of the statements are true regarding the contact lens concept?

- a. The porcelain at the gingival should be opaque.
- b. The porcelain at the gingival should be translucent.
- c. The luting cement should be opaque.
- d. The luting cement should be translucent.
- e. The body of the porcelain should be translucent.

A) a,d B) b,c C) b,d,e D) a,c,e E) b,d

6. The fabrication of a wax pattern entails which of the following?

- 1. Accurate adaptation of the wax to the die.

2. Smooth and polished external surfaces.
3. Excellent marginal integrity.
4. Stabilizing occlusal contacts.
5. All of the above.