

## Restorative

1. Occlusal reduction on a PFM full crown should be
  - a. 1 mm
  - b. 1.5 to 2 mm
  - c. as much reduction as possible for strength
  - d. none of the above
  
7. The buccal porcelain margin of a PFM preparation should be
  - a. one mm above the tissue
  - b. one mm below the tissue
  - c. at the tissue level after a 0 cord has been placed
  - d. 1 mm above the tissue after 1 0 cord is placed
  
8. In preparing the abutments for a posterior FPD
  - a. the anterior abutment should be prepared first
  - b. the posterior abutment should be prepared first
  - c. it makes no difference which abutment is prepared first
  - d. none of the above
  
9. The decision to do crown lengthening on a tooth
  - a. can be made from a X-Ray
  - b. can be made based on the probing depths
  - c. can be made based on the length of the clinical crown
  - d. all of the above
  
10. A cast post and core should be used on
  - a. only on anterior teeth
  - b. only on teeth with short roots
  - c. only on teeth with long roots
  - d. none of the above
  
1. The minimum length of a cast post should be:  
2:1 crown-root ratio  
8 mm  
1:2 crown-root ratio  
6 mm  
1:1 crown-root ratio
  
3. Axial grooves and boxes are placed to:

- a. Increase retention
  - b. Increase surface area
  - c. Improve resistance to displacement
  - d. A & B
  - e. A & C
  - f. A, B & C
5. DNA  $\frac{3}{4}$  crown preparation, an occlusal offset
- a. Allows for improved esthetics
  - b. Provides a staple effect
  - c. Is not necessary
  - d. A & B
6. In developing the optimal line of draw for a fixed partial denture, consideration must be given
- a. to the smaller abutment's alignment
  - b. to the arch alignment, including the teeth adjacent to the fixed PD abutments
  - c. to the opposing arch
  - d. to the interproximal contacts of the teeth adjacent to the FPD abutments
  - e. A, B & C
  - f. A, B & D
  - g. A, B, C & D
7. The purpose of a post is to
- a. support and strengthen the remaining tooth structure
  - b. provide retention for a coping or build up
  - c. A & B
8. To maximize retention, the following is not true:
- a. axial walls must be at least 2 mm long
  - b. grooves and boxes should be placed aligned with the line of draw
  - c. occlusal countersinks may be used
  - d. shorter teeth must be prepared more parallel than longer teeth
9. Isolation is required except for:
- a. shade selection
  - b. PVS impressions
  - c. cementation and 2ndPO<sub>4</sub> cement

- d. axial reduction
- e. A & D
- f. A, B & D

10. A post and build up is required if there are:

- a. 3 walls remaining
- b. 2 walls remaining
- c. 1 wall remaining
- d. all the above
- e. B & C

1. The retention of a dowel and core is determined by:

- a. Length of the dowel.
- b. Parallelism.
- c. Placement of an antirotational feature.
- d. A & C.
- e. All of the Above.

2. While retracting tissue, you are experiencing difficulty with one of the proximals. You can:

- a. Change the diameter of the 2<sup>nd</sup> cord.
- b. Pack the tissue with a piece of cotton impregnated with Hemodent.
- c. Use the Electrosurgery unit.
- d. Use a curettage diamond and then apply Viscostat.
- e. Any of the above.

3. When getting ready to take an impression you must isolate the tissue well in order to:

- a. Obtain an uncontaminated impression.
- b. To maximize the effect of Hemodent.
- c. To find and make a correction of the preparation.
- d. A & B
- e. All of the above.

4. Your patient recently had a C1I composite placed on #30. She is now sensitive to pressure and temperature at times. The cause may be:

- a. Hyperocclusion.
- b. Marginal leakage.
- c. Due to the "C" factor.
- d. A & B
- e. All of the above.

5. You cemented a CVC and the patient cannot tolerate cold since that visit. Your course of treatment is:
  - a. Check the occlusion.
  - b. Advise the patient that a RCT is probably going to have to be initiated.
  - c. Advise the patient that symptoms will most likely diminish and resolve completely in approximately 4 to 6 weeks.
  - d. B & D
  
6. Patient presents with an existing MOD amalgam on #18. The restoration was place approximately 6 months ago. It is acutely sensitive to pressure and temperature, mostly cold. Radiographs are negative and you can elicit pain with a bite stick, but not with any consistency. You will now:
  - a. Remove the existing restoration and place an IRM.
  - b. Remove the restoration and replace it with a composite.
  - c. Reduce the occlusion and advise the patient to call back if the symptoms persist or increase in severity.
  - d. Initiate a CVC preparation and place a provisional. Advise the pateient you will contact them then 2 to 3 days.
  
7. Upon removing an existing PFM on tooth #31 you find that the retention is compromised due to occlusal over-reduction, a short distal wall and an overtapered facial wall. The tooth is not amenable to crown lengthening and the patient cannot afford a RCT. You can attempt to gain additional retention by:
  - a. Placing two grooves on the facial.
  - b. Place a groove on the mesial.
  - c. Placing two grooves on the lingual.
  - d. Placing a groove (or two) on the lingual and one on the mesial.
  
8. You remove an existing crown and an underlying MO amalgam. You decide that a build up is not necessary. You continue the restoration and:
  - a. Refill the defect with spherical amalgam.
  - b. Place a GI base, being careful to dry the tooth well prior to placement.
  - c. Do nothing and you will fill the defect with the luting cement.
  
9. A patient presents with a luxated central incisor which was caused by an accident 4 days ago while on vacation. Your restorative operations, in order of preference, are:
  - a. 1 - An implant.
  - b. 4 - A stayplate.

- c. 3 - Using the coronal portion of the tooth and bonding it to the adjacent teeth with composite.
  - d. 2 - A Maryland bridge.
  - e. 5 - A fixed partial denture.
10. Patient presents with a large diastema between #8 and 9 and has always wanted something done about it. The best thing to do is:
- a. Advise orthodontic.
  - b. Use a Hawley to diminish the space, then restore with composite.
  - c. Present a diagnostic wax-up and then discuss options.
  - d. Close the space with veneers, either two or four.
  - e. Close the space with composite and incrementally remove some of the restorations until the patient is pleased with the result.
6. When designing PFM preparations for a 3 unit bridge, it is necessary to utilize the full length of the preps to the tissue whether or not "esthetics" is an issue?
- a. True
  - b. False
7. What are indications for a "soldered joint?"
- a. short teeth
  - b. long teeth
  - c. "angled" or "tripped" teeth
  - d. rotated teeth
  - e. none of the above
8. What is the purpose for "waxing" a design of anterior PFM preparations mounted on an articulator?
- a. to aid the laboratory in fabrication of the restorations
  - b. to have patient approval of shape and size and what can and cannot be altered
  - c. to check occlusal scheme
  - d. to maintain your waxing skills!
  - e. All of the above
9. What is the importance of examining radiographs of root forms.
- a. to assess length and diameter of roots and to help distribute occlusal loads
  - b. to determine proximity of adjacent teeth
  - c. to assess root shapes

- d. all of the above
  - e. none of the above
10. When presenting a complex restorative treatment plan with a patient, which is the least important part of the presentation appointment?
- a. mounted “before” models and radiographs and “waxed” up models of proposed finished case
  - b. discussion with patient as to their financial ability to assume treatment plan presented
  - c. showing patient photographs of completed cases you have treated
  - d. discussion with patient regarding various modalities of treatment and their pros and cons
  - e. discussion with patient regarding time frame of treatment and their responsibility for keeping appointments
1. Which factors are true when designing for preparation of a 3 unit fixed bridge?
- a. Determine which tooth to use as a “quack angle” for draw?
  - b. Where to place grooves if the teeth are short?
  - c. Build of tooth may determine preparation design.
  - d. All of the above
2. A “proximal ½ crown” is useful when the bicuspid (as the anterior abutment for a fixed bridge) is “tripped” mesially?
- a. True
  - b. False
3. “Outline” form for a CI V amalgam preparation utilized the “extension for prevention” rule.
4. When designing a ¾ crown, which factors determine placement of grooves?
- a. bulk tooth
  - b. length of tooth
  - c. anticipated load
  - d. angulation of tooth
  - e. all of the above
1. It is usually easiest to start retraction cord at the area of the transitional angle or the interproximal area because:
- a. The sulcus is usually wider in these areas
  - b. The tissue is usually bulkier in these areas

- c. Initial bleeding occurs in these areas
  - d. It is more difficult to obtain good impression in these areas
3. The interproximal contacts for a provisional should meet all the criteria below except:
- a. Be properly contoured to prevent food impaction.
  - b. Be in visual contact with the adjacent teeth
  - c. Slide the thickness of one mylar
  - d. Allow for flossing by the patient
4. Tooth #19 has been prepared for a DO cast inlay. The pulpal axial wall of the preparation has been built up with a glass ionomer base. Upon removal of the acrylic temporary at the cementation appointment, the base has been loosened. You should:
- a. Try in the casting to see if the retention has been compromised
  - b. Try to bond the base back into place and then seat the casting to see if the fit has been compromised
  - c. Place a new base and take new impressions because the casting has been compromised
  - d. Place a new base and then try in the casting to see if the retention has been compromised
5. All of the following are reasons to extend a crown preparation subgingivally except:
- a. Increase retention
  - b. Inclusion of defects
  - c. Margin placement for esthetics
  - d. Decrease preparation taper
  - e. All of the above
6. You are about to cement a porcelain crown on #19. Prior to removing the temporary, you notice that the occlusal of the temporary is thin. Which of the following might you consider:
- a. The prep is underreduced
  - b. The patient is a heavy bruxer
  - c. The opposing cusps are sharp
  - d. You have to remake the crown
  - e. All of the above
7. Tooth #9 has had root canal therapy and you have used the patient's existing crown as a temporary after you added a temporary post. You just

cemented a new cast post and took final impressions. What is your first option for the temporary?

- a. Make an indirect provisional
  - b. Use the existing crown after the temporary post has been removed
  - c. Make a direct provisional
  - d. Use a pre-fabricated anterior acrylic shell and reline it.
9. Tooth #14 is sensitive. Which of the following is not indicative of root canal pain?
- a. Sensitivity to heat
  - b. Sensitivity to cold
  - c. Sensitivity to biting
  - d. Pain in the ear
  - e. All of the above
10. Tooth #30 is sensitive to chewing forces. Which of the following can possibly be radiographically diagnosed as a cause of the pain?
- a. Endodontic lesion
  - b. Crack tooth syndrome
  - c. Bruxism
  - d. A and B
  - e. All of the above
1. In diagnosing dental caries, the estimated mean time for progression through the tooth enamel is:
- A. 3-6 months
  - B. 6 months-1 year
  - C. 2-3 years
  - D. 3-4 years
  - E. 4-5 years
2. Pit and fissure sealants should be placed if the patient is at risk for caries based on an evaluation of:
- A. pit and fissure morphology
  - B. eruption status
  - C. caries pattern
  - D. patient's perception/desire for sealant
  - E. all of the above
3. The cavity preparation in operative dentistry is determined by the \_\_\_\_\_ properties of the \_\_\_\_\_ material.

- A. chemical, dental
  - B. physical, dental
  - C. chemical, restorative
  - D. physical, restorative
  - E. ratio, restorative
4. In Dr. G.V. Black's classification of cavity preparations, a pit or fissure cavity on the lingual surface of tooth number 7 is classified as a Class IV.  
F
5. Caries in occlusal surfaces and on proximal surfaces display an identical pattern.  
F
6. Class V cavity preparations involve the cusp tips of posterior teeth or along the biting edges of the incisors. F
7. The junction of the pulpal and occlusal walls in a Class I amalgam preparation is referred to as the occluso-pulpal line angle. T
8. Permanent molars are at the greatest risk for pit and fissure caries and therefore are the most logical recipient of preventive sealants. T
9. Three walls of a cavity preparation meet to form a:
- A. line axis
  - B. point axis
  - C. margin
  - D. point angle
  - E. line angle
10. Class V cavities on teeth involve:
- A. only the occlusal surface
  - B. the occlusal surface and at least one proximal surface
  - C. the proximal surface of anterior teeth
  - D. the incisal edge of anterior teeth
  - E. the gingival third of all teeth
11. Class IV cavities are always found:
- A. in the proximal surfaces of anterior teeth
  - B. in the proximal surfaces of posterior teeth
  - C. in the cusp tips of posterior teeth
  - D. in the proximal surfaces of anterior teeth that also involve the incisal angle
  - E. in the occlusal surfaces of posterior teeth

12. Cavities on the incisal edges or the cusp tips of teeth are:
- Class I
  - Class II
  - Class III
  - Class IV
  - Class VI
13. At the dentino-enamel junction in Class I caries, the caries:
- is more widespread in dentin than enamel
  - is less widespread in dentin than enamel
  - is the same extent in dentin and enamel
  - does not usually spread from enamel into dentin
  - is only found in dentin
14. The contacting surface of a maxillary anterior tooth in a typical Class I occlusion is the \_\_\_\_\_ surface.
- mesial
  - distal
  - facial
  - lingual
  - occlusal
1. The outline form of a class III composite is influenced by all of the following except:
- decay
  - decalcification
  - existing restoration
  - proper separation from the adjacent tooth
2. List the following in the proper sequence in restoring a class III composite restoration:
- rubber dam isolation
  - tooth preparation
  - shade selection
  - bonding and finishing of the restoration
- a ,b, c,d
  - c, b,a,d
  - b,c,a,d
  - c,a,b,d
3. All of the following are indications for splinting teeth except:

1. minimizing mobility
  2. increasing support for FPDs
  3. increasing retention of short teeth
  4. all of the above
5. All the following are indications for placing subgingival margins for a PFM restorations except:
1. increase retention
  2. enhance esthetics
  3. restore cervical lesions
  4. minimize gingival irritation from the restoration
6. The only indication for placing a post in an endodontically treated molar is:
1. to increase retention
  2. to provide a more permanent seal of the root canal procedure
  3. to strengthen the remaining tooth
  4. to retain the dowel and /or build up material
7. The ideal minimal occlusal reduction for a maxillary molar that is being prepared for a PFM restoration with a lingual metal collar and porcelain occlusion is:
1. 1.5mm across
  2. 1.5 mm buccal cusps and 2mm lingual cusps
  3. 2mm buccal cusps and 1.5 mm lingual cusps
  4. 2mm across
8. List the following in the proper order as it applies to the retention of a cast restoration:
- a. cementing medium
  - b. taper
  - c. length
  - d. grooves and box forms
  - e. adjacent contacts
    1. e,d,b,a,c
    2. c,b,d,a,e
  4. d,b,c,a,e
  5. b,c,d,a,e
9. In augmenting retention for an indirect cast restoration the grooves should be placed at:
1. 90 degrees to the longest axial wall
  2. opposite the shortest axial wall

3. In the shortest axial wall
  4. 90 degrees to the shortest axial wall
10. In a posterior tooth needing a cast gold restoration all the following are indications for cuspal protection except:
    1. The isthmus of a restoration is greater than one half of the occlusal table
    2. The tooth is endodontically treated
    3. The tooth has cuspal fractures
    4. The patient has a severe bruxism habit
1. Which of the following preparations would have the least retention/resistance, assuming the length of the walls are the same for all preparations?
    - A. MOD onlay
    - B. 3/4 crown
    - C. 7/8 crown
    - D. CVC
    - E. All are equal.
  2. Clinically gingival extensions for a cast restoration may be determined by:
    - a. Desired contours of the final restoration.
    - b. .65 mm. from the base of the gingival sulcus.
    - c. Root sensitivity.
    - d. The crest of the gingival tissue.
    - e. Periodontal considerations.

A) a,b,c    B) a,c,e    C) a,c,d    D) a,c,d,e    E) a,b,c,e
  3. It is recommended to use \_\_\_\_\_ to measure the optimal axial reduction for a CVC preparation at the gingival shoulder.
    - A. #10 instrument
    - B. #15 instrument
    - C. diameter of the end of the 702.8 diamond
    - D. periodontal probe
    - E. 6 1/2- 2 1/2-9 hoe
  4. A maxillary second bicuspid requires a 3/4 crown preparation. The tooth is \_\_\_\_\_ in crossbite (the buccal cusp occludes in the central pit of the lower first molar). How many planes of lingual reduction are required?

- A. Three planes
  - B. Two planes
  - C. One plane
  - D. No reduction is needed.
5. Over tapered preparations can result in:
- a. Increased retention and resistance form.
  - b. Pulpal Inflammation.
  - c. Decreased retention and resistance form.
  - d. Preparations with greater surface area.
  - e. Thermal hypersensitivity.
- A) a,b,e    B) b,c,e    C) c,d,e    D) b,c    E) c
6. The path of insertion for a posterior full or partial veneer crown is usually \_\_\_\_\_ to the long axis of the tooth
- A. Mesial
  - B. Lingual
  - C. Distal
  - D. Parallel
  - E. Buccal
7. Resistance is the ability of the preparation to prevent dislodgment of the restoration by forces directed in a(an) \_\_\_\_\_ direction.
- a. Apical
  - b. Parallel
  - c. Oblique
  - d. Horizontal
  - e. Occlusal
- A) a,b,e    B) a,c,d    C) e    D) a,c,e    E) All of the above
8. Which of the following are possible reasons for preparing subgingival margins?
- a. To be 2.0 mm from the base of the sulcus
  - b. Caries
  - c. Retention
  - d. Esthetics
  - e. Improved marginal fit
- A) a,b,c    B) b,c,d    C) a,b,d    D) b,c,e    E) all of the above

1. Which of the following preparations would have the most retention/resistance, assuming the length of the walls are the same for all preparations?
  - A. MOD onlay
  - B. 3/4 crown
  - C. 7/8 crown
  - D. CVC
  - E. All are equal.
  
2. Clinically, gingival extensions for a cast restoration may be determined by:
  - a. Desired contours of the final restoration.
  - b. .65 mm from the crest of the gingival tissue
  - c. Root sensitivity.
  - d. Caries
  - e. Maintenance of pulpal health

A) all of the above   B) a,c,e   C) a,c,d   D) a,c,d,e   E) a,b,c,d
  
3. The optimal axial reduction for a gold CVC preparation when measured at the gingival shoulder is?
  - A. Dependent on the axial depth of caries at the gingival extension.
  - B. The width of a 6 1/2- 2 1/2-9 hoe
  - C. Dependent on the width of the gingival bevel
  - D. The width of a 10-4-8 hoe
  - E. The diameter of the 701 diamond
  
4. Which of the following statements describes a properly placed mesial buccal flare for a MOD onlay casting preparation?
  - a. The flare should be the same width from the gingival to the occlusal.
  - b. The flare terminates at a right angle to the surface of the tooth.
  - c. The flare is directed approximately toward the midpoint of the lingual axial surface of the tooth.
  - d. The flare should be flat and smooth.
  - e. The flare increases in width from the gingival to the occlusal.

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

5. The definition of the term retention as it applies to the casting preparation is?
- A. The force necessary to pull off a cemented restoration along its path of insertion.
  - B. The force necessary to pull off a non-cemented restoration along its path of insertion.
  - C. The ability to prevent dislodgment of a cemented restoration by forces directed in an apical, oblique, or horizontal direction.
  - D. The ability to prevent dislodgment of a non-cemented restoration by forces directed in an apical, oblique, or horizontal direction.
  - E. None of the above.
6. Which of the following statements is (are) true regarding retention/resistance of a cast restoration?
- a. Degree of taper is more important than grooves.
  - b. First plane length is more important than surface roughness.
  - c. A wide preparation has greater retention than a narrower one of equal height.
  - d. A long, narrow preparation can have a greater taper than a short and wide preparation without jeopardizing resistance.
- A. a,b B. a C. a,b,c D. b,c,d E. all of the above
7. A patient needs a 3/4 crown on a maxillary first bicuspid. The tooth has extruded 2 mm. The treatment plan is to restore the tooth into proper alignment with the adjacent teeth. How much reduction of the buccal cusp needs to be done prior to the placement of the buccal occlusal bevel?
- A. No reduction
  - B. .5 mm
  - C. 1 mm
  - D. 2.5 mm
  - E. none of the above
8. A patient presents with a tooth requiring a CVC restoration. The tooth has a large DO amalgam restoration which terminates 1 mm occlusal to the crest of the alveolar bone. Which of the following statements are true concerning this situation?
- a. The tooth should have crown lengthening to reestablish the proper "Biologic Width".
  - b. The margin of the preparation should terminate slightly apical to the amalgam restoration

- c. The margin of the preparation should terminate in the amalgam at least 2 mm occlusal to the crest of the alveolar bone so as not to interfere with the "Biologic Width".
- d. A chamfer finish line configuration should be used in this situation.

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

10. You are doing a minimal DO amalgam restoration for a patient. Upon completion of the pulpal wall and the buccal and lingual proximal extension at the level of the pulpal wall you find that the caries has been eliminated. The preparation is still in contact with the adjacent tooth. How much farther gingivally should you extend the axial wall of the preparation?

- A. none
- B. Until you have .25 mm of separation from the adjacent tooth.
- C. 1 mm
- D. 2 mm
- E. It depends on the height of the gingival tissue.

11. The following are steps from the handout "Cast Restorations - Adjusting, Polishing & Finishing Techniques". What is the correct sequence for finishing the gold restoration?

- a. Evaluate the margins on the patients tooth.
- b. Adjust the occlusion on the articulator.
- c. Finish the margins on the die.
- d. Adjust the proximal contact areas in the patients mouth.
- e. Adjust the occlusion in the patients mouth.
- f. Polish of the occlusal and axial surfaces.

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

12. Which of the following statements are true concerning the finishing of gold margins?

- a. A dull instrument should be used to burnish the margins.
- b. Polish margins with a Burlew wheel with light pressure.
- c. Use fine cuttle discs to smooth and finish margins.
- d. The red line will be removed when finishing the margins with the disc.
- e. The margin should not be polished with the Robinson brush as it may remove too much gold making the casting submarginal.

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

14. A provisional restoration may be made by the direct or indirect method. The advantages of a provisional restoration made by the indirect method include:

A. better marginal fit.  
B. increased strength.  
C. better biocompatibility.  
D. A & B  
E. A, B & C

16. The indications for a subgingival margin include which of the following:

a. Caries which extends subgingivally.  
b. Esthetics  
c. Need to increase the axial length of the preparation for retention.  
d. Cemental hypersensitivity  
e. Better chance for good periodontal response.

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

17. A CVC casting is made for a maxillary second molar. When tried in the patients mouth it does not seat onto the tooth completely, appears to rock, and all the margins are open. Which of the following could cause this problem.

a. Poor internal adaptation.  
b. Failure to use tray adhesive.  
c. An internal nodule.  
d. Excessive thickness of die spacer  
e. Tight interproximal contacts.

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

18. The following are steps in the preparation of an MOD onlay. What is the proper preparation sequence?

a. Extend occlusal to the proximal  
b. Debridement  
c. Gingival bevel placement  
d. Proximal box form extension  
e. Removal of caries which extends pulpal or axial deeper than minimal  
f. occlusal reduction  
g. Proximal flare placement

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

20. The advantages of a partial veneer crown over a complete porcelain crown are:

- a. Better esthetics if the minimal preparation can be achieved.
- b. More predictable maintenance of pulpal health.
- c. More predictable periodontal health.
- d. Easier impression procedures
- e. Better chance of proper crown contours.

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

21. Which of the following statements are true concerning the finishing of the margin of a cast restoration?

- a. When finishing the margin, the disc or stone should be rotating from the tooth to the gold.
- b. The casting must be held in place with firm pressure when finishing the margins.
- c. Slight submarginal areas may be finished on cementum if access permits.
- d. To facilitate cement removal all excess cement should be removed immediately after the cement becomes hard.
- e. Excess cement should be removed in an isolated area to verify complete seating of the restoration prior to the cement becoming hard.

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

22. A mandibular molar is being prepared for a CVC restoration. The tooth is in lingual version by 1.5 mm in relation to the adjacent teeth. The final restoration will be contoured to bring the occlusal portion of the buccal axial surface and the buccal cusp tips in proper alignment with the adjacent teeth. How many planes of reduction should be done on the buccal axial surface of the preparation?

- A. 1
- B. 2
- C. 3

23. When evaluating the seating of a CVC on your patient you find that the

casting rocks and the margins are open on the distal. The casting fit accurately on the die. Which of the following could cause this problem?

- a. Void on the internal of the casting.
- b. Distal contact is too tight.
- c. A nodule on the internal of the casting.
- d. Debris in the internal of the casting.
- e. Incorrect water powder ratio used for investment.

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

24. Which of the following might result in a provisional having open margins and being in hyperocclusion when tried on the patients tooth.

- a. A nodule on the plaster cast in the area of the occlusal surface of the prepared tooth.
- b. A nodule on the plaster cast at the central groove area on the tooth adjacent to the prepared tooth.
- c. A void on the plaster cast at the base of the buccal groove of the prepared tooth.
- d. A void on the internal surface of the provisional.
- e. Heavy scraping of the contact area adjacent to the prepared tooth on the plaster cast.

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

25. A final cast restoration has debris on the internal and is evaluated as a "T". What is the correct category for this evaluation?

- A. Internal
- B. Debridement
- C. Marginal finish
- D. Surface
- E. Occlusion

26. A patient comes into your office with a CVC gold restoration which has come off. The evaluation of the preparation reveals that the buccal and lingual walls are excessively tapered. The margins on the buccal and lingual terminate 1 mm into a 2 mm gingival sulcus. The preparation has a minimal chamfer margin configuration. How should the preparation be modified?

- a. Lengthen the buccal and lingual first plan walls by extending 1.5 mm apically.

- b. Increase the axial depth of the preparation on the buccal and lingual walls to decrease the convergence angle of the preparation.
- c. Place a groove on the longest interproximal wall parallel with the original buccal wall.
- d. Place a groove on the buccal wall parallel with the final path of insertion.
- e. Use base to build up the occlusal surface to lengthen the walls of the preparation.

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

27. A mandibular molar is being prepared for an MOD onlay. The tooth is in normal occlusion. How much should the lingual cusp be reduced?

- A. 0.5 mm
- B. 1-1.5 mm
- C. 2 mm
- D. Depends on the alignment of the teeth.

29. You are restoring a maxillary first molar with a 3/4 crown. The patient has no opposing occlusion and the tooth has extruded .5 mm. You are going to restore the maxillary arch to the correct occlusion and replace the missing mandibular teeth. How much buccal cusp tip reduction will be needed for the final preparation after bevel placement.

A) none B) .5 mm C) 1.0 mm D) 1.5 mm E) 2.0 mm.

31. You are preparing a patients tooth for an amalgam restoration and have completed the minimal preparation to minimal pulpal and axial depth. Which of the situation(s) described below are the correct way to handle the situation described?

- A. Caries which extends .5 mm pulpally is identified in the center of the pulpal wall. The caries does not extend to the line angles. The caries should be removed by lowering the complete pulpal wall .5 mm and place a base.
- B. Discoloration at the DEJ is identified at the buccal proximal line angle. The preparation should be extended buccally beyond the minimal .25 mm extension.
- C. The axial wall is 1 mm long. The preparation should be extended more apically to achieve a 2 mm axial wall to allow placement of proper buccal and lingual retentive grooves.
- D. None of the above
- E. All of the above

32. You are preparing a 7/8 crown on a maxillary first molar. You identify a white area at the mesial buccal margin which extends 1 mm beyond the minimum extension. The white area is shiny and when tested with an explorer the white area is not soft. What is the proper extension for the mesial buccal margin for this preparation.
- A. .5 mm
  - B. .75 mm
  - C. 1 mm
  - D. 1.25 mm
  - E. 1.5 mm
33. You are doing a full mouth reconstruction for a patient and will be increasing the patients vertical dimension by 2 mm in the area of the first molar. You will be restoring both the maxillary and mandibular teeth. In your diagnostic wax up you decide to increase the vertical height of the teeth by 1 mm on the maxillary and 1 mm on the mandibular. How much occlusal reduction should be done on the mandibular first molar?
- A. none
  - B. .5 mm
  - C. 1 mm
  - D. 1.5 mm
  - E. 2 mm
34. You are preparing a mandibular second bicuspid for a CVC. The tooth is in lingual version by 1 mm. You will be restoring the occlusal 2/3 of the tooth into even alignment with the adjacent teeth. How much axial reduction is required at the gingival shoulder area?
- A. None
  - B. .25 mm
  - C. .65 mm
  - D. 1 mm
  - E. 1.65 mm
35. When evaluating the marginal fit of a provisional restoration you observe that the mid buccal marginal area is sub by .3 mm and the mesial interproximal margin has .3 mm of excess. All of the other margins are perfect. What is the proper evaluation for the marginal integrity of this restoration?

- A. R
- B. S
- C. M
- D. T
- E. V

36. When evaluating a final PVS impression you observe the following. Which situation would require remaking the impression?

- a. The tray contacts the tooth adjacent to the prepared tooth on the non-functional cusp tip.
- b. The impression is torn exactly at the margin in a 1 mm area.
- c. There is a small void at the base of a groove which is small enough not to compromise the retention of the preparation.
- d. The impression has pulled away from the tray slightly in the area of the preparation.
- e. The occlusal surfaces of the teeth on the opposite side of the arch are not fully duplicated.

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

37. Which of the following situations would result in an unacceptable evaluation in the category of axial contours when evaluating a finished cast restoration?

- A. The contact area holds silver mylar and the restoration is completely seated.
- B. The contact area is visually open.
- C. The silver mylar will pull through the contact area with resistance, and the restoration is not completely seated as evidenced by an even opening of the gingival margins.
- D. B & C
- E. All of the above

38. Which of the following would result in an unacceptable evaluation in the category of "Surface" when grading a finished restoration prior to cementation?

- A. Slight debris on the internal in the area of the gingival margin.
- B. Slight polishing compound at the base of the central groove.
- C. A small pit on the axial surface that does not penetrate through to the internal.
- D. All of the above
- E. None of the above

39. When doing a casting preparation a build-up is used to:

- A. Increase the retention and resistance of the preparation.
  - B. Block out undercuts.
  - C. Reduce the amount of metal in the final restoration.
  - D. B & C
  - E. All of the above
40. The width of the properly placed gingival bevel on a CVC preparation should be:
- A. .5 mm
  - B. .65 mm
  - C. 1 mm
  - D. Depends on the amount of axial reduction
  - E. B & D
41. A patient comes into your office with a loose crown. After removal of the crown you determine the reason for the crown coming loose is the first plane walls on the buccal and lingual are only 2 mm in length. The buccal and lingual margins terminate .5 mm occlusal to the crest of the gingival tissue. The buccal and lingual sulcular depth is 1.5 mm. The mesial wall is over tapered and terminates at the crest of the gingival tissue. What is the best way to improve the retention of the preparation?
- a. Lengthen the buccal and lingual first plane walls by 2 mm.
  - b. Lengthen the buccal and lingual first plane walls by 1 mm.
  - c. Place a groove on the buccal wall parallel with the path of insertion.
  - d. Place a groove on the buccal wall parallel with the mesial wall.
- A) a,d      B) a,c C) b,cD) b,d      E) a
42. Which of the following properly describes the gingival wall of the amalgam preparation?
- A. The gingival wall is at right angles to the axial wall.
  - B. The gingival wall is beveled approximately 30°
  - C. The gingival wall is tapered gingivally to remove unsupported enamel.
  - D. B & C
  - E. All of the above
43. Clinically the most reliable way to determine if the axial walls of a casting preparation have the proper taper is to:
- A. View the preparation with a mouth mirror from the buccal and lingual.

- B. View the preparation from the occlusal with a mouth mirror with both eyes.
  - C. View the preparation from the occlusal with a mouth mirror with only one eye.
  - D. View the preparation from the distal with a mouth mirror.
  - E. Visual evaluation is not a reliable method to evaluate for proper preparation taper.
44. You are preparing a tooth for a CVC on a tooth that has a 1.2 mm deep area of buccal erosion. How deep should the preparation be at the area of the shoulder on the buccal?
- A) .5 mm B) .65 mm C) 1 mm D) 1.2 mm E) 1.45 mm
46. Correct cast and die fabrication are extremely important for the accurate fit of the final restoration. Which of the following steps will insure this accuracy?
- a. A thick shiny, coat of cyanoacrylate placed over and beyond the margin to protect the red line.
  - b. Die spacer applied to achieve a 25-40 micron thickness.
  - c. Very thin red line applied to identify the margin.
  - d. A heavy coat of Slaycris applied before waxing.
  - e. Access to pins for ease of removal.
  - f. The die should be cleaned under running water after trimming with an acrylic bur.
- A) b,c,d B) a,c,e,f C) b,c,e D) c,e,f E) b,e,f
47. What instrument is recommended to place the gingival bevel on a CVC preparation when access does not limit the size or shape of the instrument?
- A. 702.8M diamond
  - B. H283-012 finishing carbide
  - C. H281-009 finishing carbide
  - D. 7802 finishing carbide
  - E. 10-4-8 hoe
48. What material should be applied to the surface of the provisional restoration, prior to cementation, to prevent the cement from adhering to the surface of the provisional?
- A. Alcote
  - B. Slaycris
  - C. Vaseline
  - D. Saliva

E. Cyanoacrylate

49. When preparing a mandibular MOD onlay it is determined that the mesial buccal extension can be kept minimal. When evaluating the mesial buccal extension of the preparation you find that the thickness of the blade of a 6 1/2 - 2 1/2 - 9 instrument will fit between the margin and the adjacent tooth with approximately .1 mm of clearance. The rest of the outline is perfect. How should you evaluate the outline of this preparation?

A) R      B) S      C) M      D) T      E) V

2. A patient's tooth is prepared for an MOD onlay and the provisional has an open proximal contact. What is(are) the most probable result this will have on the final restoration?

1. The proximal contact will be open.
2. The proximal contact will be too tight.
3. The patient will have food impaction in that area after placement of the final restoration.
4. The patients occlusion might have changed due to movement of the tooth.

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

3. When preparing a patient's tooth for an MO amalgam restoration you extend the axial wall 2 mm gingival to the pulpal wall. The caries is minimal and was removed after 1 mm of axial wall extension. The amount of separation from the adjacent tooth at the gingival wall is 1 mm. Assuming all other aspects of the preparation are perfect, how would you evaluate the preparation?

1. Unsatisfactory in the category of internal due to excessive extension beyond the caries.
2. Unsatisfactory in the category of outline due to excessive separation from the adjacent tooth.
3. Satisfactory in the category of outline as a minimum of 2 mm of axial wall length is required to place adequate proximal retentive features.
4. Unsatisfactory in the category of outline due to extending 1 mm beyond the caries.

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

4. Which of the following instruments would be the best choice for evaluating the axial reduction of the CVC preparation at the gingival shoulder?

- a. 10-4-8 hoe
  - b. 6 1/2-2 1/2-9 hoe
  - c. #10 binangle chisel
  - d. #15 hatchet
  - e. 702.8M diamond
5. You are preparing an MOD onlay for a maxillary bicuspid. The tooth is extruded by 1.5 mm in relation to the adjacent teeth. You want the final restoration to be in harmony with the adjacent teeth. How much occlusal reduction of the buccal cusp, after placement of the occlusal bevel, will be required?
- a. .5 mm
  - b. 1 mm
  - c. 1.5 mm
  - d. 2 mm
  - e. 3 mm
6. The optimal occlusal reduction for the lingual cusp of a 7/8 crown preparation on a maxillary molar in optimal occlusion should be?
- a. .5 mm
  - b. 1 mm
  - c. 1.5 mm
  - d. 2 mm
7. What is the optimal axial reduction for a CVC preparation when measured at the occlusal 1/3 of the axial wall? Assume the tooth was in proper occlusion and alignment prior to the preparation.
- a. .5 mm
  - b. .65 mm
  - c. 1 mm
  - d. 1.5 mm
  - e. 2 mm
8. The axial depth of a class II amalgam preparation is uniformly 1.2 mm. The thickness of enamel is 1.1 mm. What is the proper evaluation of this preparation assuming all other aspects of this preparation are correct?
- 1. The evaluation is unsatisfactory in the category of internal due to inadequate extension into dentin.
  - 2. The evaluation is unsatisfactory in the category of internal due to inadequate overall axial depth.

3. The evaluation is satisfactory in the category of internal due to adequate overall axial depth.
4. The evaluation is unsatisfactory in the category of retention as there is insufficient dentin to place retention.
- a) 1, 2      b) 3      c) 3, 4      d) 1, 2, 4      e) 1
10. The optimal taper of a casting preparation is  $6^{\circ}$ . According to the study done by Jorgensen a preparation with a taper of  $15^{\circ}$  will have approximately what percent of decrease in retention?
- a. 10 %  
b. 15 %  
c. 25 %  
d. 50 %  
e. 75 %
11. Assume all of the following preparation are done on the same tooth and have the same length and taper of axial walls. Which preparation would have the least amount of retention?
- a. 3/4 crown  
b. 7/8 crown  
c. CVC  
d. MOD onlay
12. When preparing a CVC for a patient you have extensive caries on the distal proximal surface of the tooth which eliminates all reciprocation with the mesial wall of the preparation. The remaining axial walls have 4 mm of properly tapered first plane length. How should the preparation be modified to provide optimal retention for the restoration?
1. No modifications are necessary as you have three walls for retention.  
2. Place a groove on the buccal surface.  
3. Extend the buccal and lingual walls 1-2 mm more gingivally.  
4. Base up the distal to obtain a reciprocating wall with the mesial.  
5. Place a groove on the mesial.
- a) 1    b) 2    c) 3, 4, 5    d) 2, 3    e) 4, 5
14. What effect will a nodule left on the internal surface of a cast restoration have on the restoration at the time of the try-in?
1. The casting will be in hyper-occlusion.  
2. The casting will have open margins.  
3. The casting will be in hypo-occlusion.

4. The proximal contacts will be excessively tight.
- a) 1    b) 3    c) 1, 2, 4    d) 1, 2    e) 2, 3, 4
15. When preparing a maxillary MOD onlay it is determined that the distal buccal extension can be kept minimal. When evaluating the distal buccal extension of the preparation you find that the thickness of the blade of a 6 1/2-2 1/2-9 instrument will fit exactly between the margin and the adjacent tooth. The rest of the outline is perfect. How should you evaluate the outline of this preparation?
- a) R            b) S            c) M            d) T            e) V
16. Which of the following statements are true concerning the finishing of a cast gold restoration on the patient's tooth?
1. All accessible margins should be finished with a disc or stone.
  2. Centric contact points are marked with silver mylar.
  3. The occlusion should be adjusted prior to polishing the occlusal grooves.
  4. The margins should be evaluated prior to adjusting the proximal contact areas.
- a) 1    b) 1, 3    c) 1, 4    d) 1, 2, 3, 4    e) none of the above
17. A patient comes into your office with a CVC that has fallen off. When evaluating the preparation you notice that all of the axial walls have a 6° axial taper and the first plane length is 1.5 mm. The occlusal reduction is optimal. The preparation terminates 1 mm into the gingival sulcus and the sulcular depth is uniformly 2 mm. How would you alter the preparation?
- a. Lengthen the first plane walls 1.5 mm.
  - b. Do crown lengthening surgery and lengthen the first plane walls by 1.5 mm.
  - c. Place grooves on the buccal, lingual, and interproximal walls parallel with the path of insertion.
  - d. Build up the occlusal surface to create longer axial walls.
18. Clinically decalcification of the enamel is determined by:
- a. Soft enamel which can be removed with an explorer.
  - b. White spots or lines on the enamel.
  - c. Brown spots or lines on the enamel.
  - d. a & b
  - e. a, b & c

19. Which of the following are clinical criteria for determining the outline for a cast restoration.
1. Esthetics
  2. Decalcification
  3. Terminating margins .65 mm from the crest of the gingival tissue.
  4. Type of marginal configuration.
  5. Periodontal considerations.
- a) 1, 2, 3    b) 1, 2, 4, 5    c) 2, 3    d) 1, 2, 5    e) 1, 2, 3, 4, 5
20. Finishing the gingival margins of a cast restoration that terminates in the cementum must be done very carefully. Assuming access permits which of the following techniques should be followed to finish a gingival margin that terminates in cementum?
- a. Finish and polish on the die.
  - b. Finish the margin carefully on the tooth with a green stone, white stone and polish with a fine cuttle disc.
  - c. Finish the margins carefully on the tooth with a fine garnet disc and a fine cuttle disc.
  - d. a & b
  - e. a & c
21. Which of the following could result in a nodule on the internal surface of an acrylic provisional made using the indirect technique?
1. Entrapment of air when seating the Ellman filled with acrylic on the plaster cast.
  2. Entrapment of air when pouring the preparation portion of the alginate impression.
  3. Placing the cast with acrylic in hot water.
  4. A void in the alginate impression in the area of the prepared tooth.
- a) 1, 2, 3, 4    b) 1, 4    c) 2    d) 1, 2    e) 1, 3, 4
24. Which of the following are techniques which should not be followed when making an acrylic provisional?
- a. When using the "salt & pepper" technique to repair a margin, the acrylic should be removed from the teeth when it is still slightly soft to prevent it from locking onto the teeth.
  - b. Minimally scrape the plaster from the adjacent contact areas on the plaster cast to prevent having open proximal contact areas in the provisional restoration.

- c. Liberally apply a heavy coat of Alcolac to the plaster cast to prevent the acrylic from adhering to the plaster.
  - d. a, b & c
  - e. a & c
25. Which of the following would result in an unacceptable evaluation in the category of "Surface" when grading a finished restoration prior to cementation?
- a. Small pit on the occlusal surface that penetrates through the casting.
  - b. Polishing agent at the depth of the central pit area and at the depth of some of the occlusal grooves.
  - c. Polishing agent on the internal surface of the casting.
  - d. a, b & c
  - e. a & c
26. When trying in a casting on a patient you identify that the casting rocks and the margins are slightly open. The casting fits perfectly on multiple untouched dies and the working cast. The proximal contacts are not tight. The casting has no observable internal debris or nodules. Which of the following might explain the problem?
- a. Improper water/powder ratio in the investment.
  - b. The cusp tip of the die spaced die was minimally abraded.
  - c. The impression was inaccurate (distorted).
  - d. a, b, & c
  - e. None of the above
27. What is the range of acceptability for the width of a gingival bevel on a cast gold restoration?
- \_\_\_\_\_
28. What material should be placed on the surface of a completed provisional restoration to prevent the hardened cement from adhering to the surface of the provisional?
- \_\_\_\_\_

29. When access permits what instrument (hand or rotary) should be used to place the gingival bevel on a cast gold preparation?

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30. What is the proper amount of axial reduction for a CVC after the placement of the gingival bevel when measured at the gingival shoulder?

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31. You are preparing a 3/4 crown for a maxillary bicuspid where 1/2 of the lingual cusp has fractured off prior to the preparation. How many planes of lingual axial reduction are necessary in this situation?

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32. The "Biologic Width" is the combined width of the epithelial and connective tissue attachment. According to the article quoted in Shillingburg's book the dimension of the "Biologic Width" is how many millimeters?

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33. What is one of the consequence of extending a margin of a restoration into this "Biologic Width"?

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34. When preparation criteria permit a minimal extension, what is the range of acceptability for the mesial buccal extension for an onlay preparation on a maxillary bicuspid?

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35. The mesial lingual flare on a minimally extended MOD onlay should be directed toward what anatomic position on the tooth?

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36. When doing an inlay preparation the occlusal bevel vary from a minimal bevel of .5 mm at a 15° angulation to a .5 mm bevel at a 45° angulation. What determines the angulation of the occlusal bevel?

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37. What bur (diamond) should be used to do the occlusal reduction for an MOD onlay preparation?

\_\_\_\_\_

38. What three criteria are used to determine that all dentinal caries have been removed from the internal of a preparation?

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

39. When preparing the lingual gingival bevel on a 7/8 crown preparation you eliminated the shoulder that you previously established at the ideal axial depth. How should you modify this preparation?

\_\_\_\_\_

40. What type of preparation would be indicated for a mandibular molar that has a defective MOD amalgam restoration. After removal of the amalgam the buccal and lingual cusps of the tooth will be weakened. The mesial and distal proximal extensions of the amalgam are minimal and there is sufficient access to obtain retention for the preparation from the mesial and distal box forms. The buccal gingival portion of the tooth has an area of decalcification that extends from the mesial box to the distal box. From the information given what type of preparation should be done for this tooth?

\_\_\_\_\_

41. What type bur should be used to smooth and define the occlusal grooves of a gold casting prior to polishing with the Robinson brush?

\_\_\_\_\_

42. Give two reasons for placement of a gingival bevel on a cast gold preparation.

a. \_\_\_\_\_

b. \_\_\_\_\_

45. A mandibular molar is in crossbite (the occlusion is on the lingual cusp). The tooth requires a CVC. How many planes of reduction for the buccal axial surface will be required to achieve the proper contour of the restoration?

1. Which of the following are factors that determine the outline of an MO direct placed composite on a mandibular molar?
  - a. Fissured grooves that do not have underlying caries
  - b. Interproximal decalcification
  - c. Depth of the caries on the pulpal wall.
  - d. a & b
  - e. a, b & c
  
2. When doing a class III preparation which of the following will help you to determine if the initial access should be from the facial or the lingual?
  - a. Location of the decalcification
  - b. The radiograph
  - c. Clinical visualization of the position of the caries (facial or lingual)
  - d. a & c
  - e. a, b & c
  
3. When doing a direct placed composite the margins should always:
  - a. terminate in enamel.
  - b. be beveled when access permits.
  - c. meet the surface at right angles when the margin terminates in the contact area.
  - d. b & c
  - e. None of the above
  
4. Which of the following should be use to adjust the proximal contact of a porcelain onlay that is significantly too tight?
  - a. R17DM (pink)
  - b. R17DG (green)
  - c. R17D (gray)
  - d. Ultradent green disc
  - e. Ultradent yellow disc

5. You have removed a previously placed composite veneer and are going to replace it with another veneer. When etching the prepared tooth you find there is a 2 mm diameter area that does not take on the classic white chalky appearance of etched enamel. What might account for this apparent lack of etching?
- Surface contamination with saliva
  - Exposed area of dentin
  - Residual composite
  - b & c
  - a,b & c
6. Which of the following is the correct sequence of steps in the preparation of an extensive class III composite.
- Remove axial caries
  - Place bevels
  - Etch enamel
  - Etch dentin
  - Dry thoroughly with air
  - Remove debris with wet cotton pellet
- A) a,b,c,d,e,f B) b,a,d,c,e,f C) b,a,f,c,e,d D) a,b,d,c,e,f E) b,a,f,d,c,e
7. Which of the following features of the indirect porcelain veneer preparation are true?
- A minimum of .4 mm of tooth structure needs to be removed in all areas of the preparation.
  - The margins of the preparation must not be undercut.
  - The margins should terminate lingual to the contact area.
  - b & c
  - a,b & c
8. Your patient needs a class IV composite to replace a very discolored existing class IV restoration. Which of the following is the correct way to do shade selection?
- Place the rubber dam and then remove the restoration and do a trial build up.
  - Remove the restoration, trial build up with composite and cure.
  - Use a shade tab to select the shades.
  - Evaluate the build up in natural lighting conditions.
  - Remove the restoration, trial build up with composite but do not cure as it is difficult to remove the cured composite.
- A) c,d,e B) b C) b,c,d D) a,c,d E) b,d
9. When preparing an anterior tooth for an indirect porcelain veneer the incisal edge of the tooth should be covered:

- a. when the length of the maxillary tooth will be increased with the veneer.
- b. when restoring a mandibular incisor.
- c. when there is incisal wear.
- d. when re-establishing anterior guidance.
- e. The incisal edge should never be covered as the porcelain will cause wear to the opposing teeth.

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

10. Beveling the enamel margins of the composite preparation has the following advantages:

- a. The bevel will increase retention.
- b. The bevel exposes the ends of the enamel rods for better etching
- c. The bevel removes unsupported enamel.
- d. a & b
- e. a, b, & c

11. The gingival retentive feature for a class V preparation that terminates in enamel should be placed with which of the following instruments:

- a. gingival margin trimmer
- b. 1 round bur
- c. 33 1/2 inverted cone bur
- d. 1/4 round bur
- e. none of the above

12. Your patient has fractured approximately 1 mm from the distal incisal edge of tooth #8. What is the appropriate design of the facial margin of the preparation for this situation?

- a. The margin should terminate with a .5 to 1 mm 45° bevel.
- b. The margin should terminate parallel with the direction of the enamel rods.
- c. The margin should have a 2-3 mm chamfer type reduction.
- d. The margin should have a 2-3 mm 60° bevel.
- e. none of the above

13. Which of the following are appropriate postoperative instructions to give a patient after placement of a large class II composite restoration.

- a. Avoid biting on the new restoration for approximately 24 hours to allow the material to obtain its complete hardness.
- b. The bite might feel high for the first few days until the material wears down to the proper bite.
- c. Their gums might be sore and bleed for a few days following the procedure, therefore they should avoid brushing and flossing in that areas until the tissues heal.
- d. a, b & c
- e. none of the above



14. You are placing a class V composite. After etching the dentin for 5 seconds you observe that the area does not have the anticipated chalky white appearance. What do you think may be the problem.
- a. The acid etching solution might be too old.
  - b. The acid etching solution was not on long enough.
  - c. The patient's teeth have a high fluoride content due to the use of topical fluoride as a child.
  - d. a,b & c
  - e. None of the above
15. The indication for an indirect tooth-colored restoration compared to a gold restoration is:
- a. Cusps of the tooth need to be capped
  - b. Inability to place a gingival wedge
  - c. Esthetics
  - d. a & b
  - e. a,b & c
16. Which of the following is best treated with porcelain veneers?
- a. Diastema closures
  - b. Small class IV fractures
  - c. Discolored teeth that do not respond satisfactorily to whitening (bleaching).
  - d. Class III caries
  - e. none of the above

17. You need to prepare a patient's tooth for a porcelain veneer. The patient has 2 mm of gingival recession apical to the CE junction. To obtain the maximum longevity of bond the preparation should be terminated:
- .5 mm apical to the crest of the gingival tissue.
  - at the crest of the gingival tissue.
  - .5 mm incisal to the crest of the gingival tissue.
  - 2.5 mm incisal to the crest of the gingival tissue.
  - b or c
18. Which of the following instructions should be given to a patient following placement of a posterior porcelain inlay?
- Brush and floss normally
  - Avoid eating on the newly placed restoration for 24 hours
  - Avoid chewing on excessively hard objects (i.e. ice, bones)
  - a, b & c
  - a & c
19. The facial embrasure form of a class IV composite restoration is best evaluated by viewing the restoration from:
- the incisal.
  - the facial.
  - the mesial and distal.
  - the gingival.
20. Which of the following is/are recommended for the removal of extensive gingival excess when doing a class III composite restoration?
- #12 blade
  - SofFlex discs
  - Course finishing strip strips
  - C379F finishing bur
  - a or c
21. Which of the following statements is correct for margins that terminate in contact with an adjacent tooth?
- It is unacceptable to leave unsupported enamel.
  - The margin should be beveled.
  - The margin should never be left in contact with an adjacent tooth.
  - b & c
  - none of the above
22. Which of the following are not criteria for the minimum outline of a class II composite restoration?
- Include decalcification
  - Proximal margins should minimally break contact with the adjacent tooth.
  - Circumscribe caries

- d. Fissured grooves that are contiguous with the preparation must be included in the outline.
  - e. An occlusal dovetail is required.
- A) a,b,c,d,e      B) b,d,e      C) b,c,d      D) a,b,c      E) c,d,e
23. The minimal axial depth for a class II composite preparation, where the caries extends into dentin, at the facial or lingual axial line angle should be:
- a. .25 mm into dentin
  - b. .5 mm into dentin
  - c. just into dentin
  - d. dictated by the depth of the caries.
  - e. deep enough to place retention without weakening the enamel.
24. Which of the statements is not true regarding the proximal walls of a class II composite preparation?
- a. Accessible margins should be beveled.
  - b. Inaccessible margins should terminate at right angles to the tooth.
  - c. Gingival margins should be planned with a margin trimmer.
  - d. All unsupported enamel should be removed.
  - e. None of the above.
25. Your patient has minimal caries on the distal of #8. Clinical examination reveals that there is no decalcification in the facial embrasure and the caries appears to be in the center of the contact area. What is the preferable way to do your shade selection?
- a. Using the shade guide only.
  - b. Remove the caries and do a trial build up with composite after placement of the rubber dam.
  - c. Remove the caries and do a trial build up with composite prior to placement of the rubber dam.
  - d. Remove the caries and do a trial build up with composite after placement of the rubber dam, but do not light cure as it is difficult to remove the cured composite.
  - e. Remove the caries and do a trial build up with composite prior to placement of the rubber dam, but do not light cure as it is difficult to remove the cured composite.
26. Which of the following were discussed as ways to prevent premature occlusal wear of the direct posterior composite restoration?
- a. Keep the restoration as minimal as possible.
  - b. Avoid occlusion with gold restorations.
  - c. Use macrofilled materials that have excellent compressive strengths.
  - d. a & c
  - e. a,b & c

27. After a thorough examination you determine your 18 year old patient has occlusal caries in the central pit of tooth #19. The caries appears to be minimal, however they have deep developmental (fissured) grooves. The patient has occlusal amalgams on # 30 & 18. What restorative procedure should be recommended?
- Class I amalgam
  - Class I composite that includes the deep developmental grooves.
  - Class I composite that just circumscribes the caries.
  - Class I composite that just circumscribes the caries with a pit and fissure sealant to cover the developmental grooves.
  - All of the above would be acceptable.
28. Your patient has a very minimal MO amalgam on tooth #3. You confirm that the patient has an allergy to dental amalgam. What would the treatment of choice be for this situation?
- MO gold inlay.
  - MOD gold onlay
  - MO composite inlay
  - MO direct placed composite
  - PFM restoration
29. After finishing a class IV composite you realize the incisal edge is too short and is esthetically unacceptable. Which of the following procedures should be followed to correct the problem?
- Remove the restoration and re-do it.
  - Roughen the surface with a diamond, etch, bond and add more composite.
  - Add composite to the surface as there are sufficient double bonds available due to the air inhibited layer.
  - Shorten the adjacent teeth.
  - Leave it, the patient will not know the difference.
30. Which of the following statements are true regarding the direct composite veneer restoration?
- The restoration can be used to modify the shape of a tooth.
  - The restoration is easier to repair than a porcelain veneer restoration.
  - The restoration usually does not require tooth reduction.
  - It is indicated for restoration of multiple teeth (more than 2).
  - The restoration can be used to modify the shade of a tooth.
- A) a,b,c,e    B) a,e    C) a,c,d,e    D) a,b,e    E) a,b,c,d,e
31. Your patient fractured the distal incisal edge of tooth #9 there are no caries or existing restorations. The tooth needs restoration with a class IV composite. List the major steps you need to accomplish before placement of the restorative material. (5 pts.)

1. Clean the surface of the tooth. 2. Select shade. 3. Place the rubber dam (isolate) 4. Bevel the margins. (prepare the tooth) 5. Acid etch.

32. The following are steps in the direct composite veneer procedure. Arrange them in proper sequence (i.e.: a, c, f, etc) Answer must be exact to receive credit. (2 pts.)
- Placement of rubber dam
  - Shade selection with shade tabs
  - Gingival margin placement
  - Polish with medium finishing strip
  - Mock build up
  - Second plane reduction
  - Rubber dam removal
  - Adjust occlusion
  - Contour facial embrasures with #12 blade
  - Etch enamel

c,f,b,e,a,j,l,d,g,h

1. You are preparing a patients tooth for a CVC. All of the criteria for proper outline have been fulfilled and the gingival margins terminate 2 mm occlusal to the crest of the gingival tissue. The preparation should be modified as follows:

- Extend the preparation further gingivally to terminate the margins .65 mm occlusal to the crest of the gingival tissues.
- Place a groove on the buccal surface to increase the retention.
- Extend the buccal gingival margin .5 mm apical to the crest of the gingival tissue for a better esthetic result.
- Extend approximately 1.5 mm further gingivally to increase the preparations retention and resistance.
- Do not alter the preparation.

3. The purpose for a gingival bevel in a casting preparation is?

- The metal at the margin is thin and can be burnished.
- The bevel increases the retention of the restoration.
- Decreases the chance to leave unsupported enamel at the margin.
- 1 & 3
- 1, 2, & 3

4. When doing a casting preparation a base is used to:
  1. Increase the retention and resistance of the preparation.
  2. Decrease the amount of metal in the final restoration.
  3. Block out undercuts.
  4. Reduce thermal sensitivity.
  5. 2, 3, & 4
  
5. The depth of axial reduction for a casting preparation is dependent on:
  1. Margin configuration
  2. The type of restorative material to be used.
  3. The desired contours of the final restoration.
  4. 2 & 3
  5. 1, 2, & 3
  
7. What evaluation should a provisional restoration receive in the margin category if the margins are closely adapted to the tooth but they are uniformly .5 mm submarginal.
 

|      |      |
|------|------|
| 1. R | 4. T |
| 2. S | 5. V |
| 3. M |      |
  
8. Which of the following problems could result in a provisional restoration not seating completely on the patients tooth?
  1. A void at the cusp tip of the prepared tooth in the impression.
  2. A void at the cusp tip of the prepared tooth on plaster cast.
  3. A void at the cusp tip of the tooth adjacent to the prepared tooth on the plaster cast.
  4. A bubble on the occlusal surface of the prepared tooth on the plaster cast.
  5. A poorly formed Ellman.
  
9. The width of the properly placed gingival bevel should be approximately?
 

|                    |                              |
|--------------------|------------------------------|
| 1. .25 mm          | 4. 1 mm                      |
| 2. 45 - 60 degrees | 5. as wide as access permits |
| 3. .65 mm          |                              |
  
10. The definition of retention when applied to the cast restoration is:
  1. The ability of the preparation to prevent dislodgement of the restoration by forces directed in an apical direction.

2. The ability of the preparation to prevent dislodgement of the restoration by forces directed in an oblique direction.
  3. The ability of the preparation to prevent dislodgement of the restoration by forces directed in an horizontal direction.
  4. The ability of the preparation to prevent dislodgement of the restoration by forces directed occlusally and parallel with the path of insertion.
  5. None of the above.
12. A patient comes into your office with a loose bridge. After removal of the bridge you determine the reason for the bridge coming loose is due to the over tapering of the axial walls of the preparation. The margins of the preparation are 2 mm occlusal to the crest of the gingival tissue and the crevicular depth is 2 mm. What is the method of choice to increase the retention/resistance of the preparation?
1. Place grooves on the buccal and lingual walls of the preparation parallel with the proper path of insertion.
  2. Place grooves on the mesial and distal walls of the preparation parallel with the proper path of insertion.
  3. Place grooves on the buccal and mesial walls of the preparation parallel with the proper path of insertion.
  4. Roughen the axial surfaces of the preparation with a course diamond.
  5. Extend the preparation 2-3 mm further apically, parallel with the proper path of insertion.
13. A patient comes into your office with a loose bridge. After removal of the bridge you determine the reason for the bridge coming loose is due to the over tapering of the axial walls of the preparation. The margins of the preparation are at the crest of the gingival tissue and the crevicular depth is 1 mm. The length of the axial walls are approximately 5-6 mm. What is the method of choice to increase the retention/resistance of the preparation?
1. Increase the parallism of the first plane walls by accentuating the depth of the preparation at the gingival.
  2. Increase the parallism of the first plane walls by accentuating the depth of the preparation at the gingival and extend the preparation 1.5 mm further apically to increase the length of the walls.
  3. Place grooves on the mesial and buccal walls.
  4. Devitalize the tooth and do a post and core.
  5. None of the above.
14. Clinically, decalcification of the enamel is determined by:

1. White spots or lines on the surface of the tooth.
  2. Soft enamel which can be removed with an explorer.
  3. Brown spots on the surface of the tooth.
  4. 1 & 2 only.
  5. 2 & 3 only.
15. Finishing the margin of a gold restoration with a rotary instrument should only be done where:
1. The enamel is sufficient thick.
  2. The margin is .5 mm open.
  3. The margins extend onto the cementum but are 2 mm occlusal to the gingivae.
  4. 1 & 3
  5. 1, 2 & 3