Module 3D General Questions
Answers in BOLD (usually the first answer)

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A 45-year-old patient presents with a complaint that a 10-year-old PFM crown on tooth #8 is lighter than the other teeth. The dentist finds that although the crown color is mismatched, the restoration is clinically acceptable. Which of the following is the BEST treatment of choice?

A. Vital nightguard bleaching  
B. Replace PFM  
C. Cover PFM with porcelain veneer  
D. Microetch PFM crown and veneer with direct composite
An indirect composite inlay has each of the following advantages over direct composites EXCEPT; the EXCEPTION is

A. Strength of bond to dentin
B. Better wear resistance
C. Greater polymer conversion
D. Increased hardness of material
E. Less stress on tooth from polymerization shrinkage
Which of the following defects of Class II restorations is NOT a predisposing factor to periodontal disease?

A. Underextended proximal margins
B. Broad contact faciolingually
C. Improperly shaped occlusal embrasures
D. Contacts gingival one-third
Each of the following is an indication for the placement of a temporary restoration for treating a deep to moderately deep carious lesion EXCEPT;

A. Weak cusps that need to be capped
B. A patient who has many lesions in need of immediate treatment
C. Preoperative pulpal sensitivity that is in need of further evaluation
D. A shortage of time such as that created by an emergency visit appointment
Which of the following is the most definitive test for diagnosis of an incomplete tooth fracture (Cracked Tooth Syndrome)?

**Biting test**
Where does proximal caries usually start?

Slightly cervical to the contact area
Instruments that a dentist can use for gingival bevels on onlay preparations include each of the following EXCEPT;

A. Enamel hatchets
B. Fine, tapered diamonds
C. Gingival margin trimmers
D. Flare-shaped finishing burs
Glass ionomer cement releases fluoride. What is another advantage of glass ionomer cement?

A. Forms ionic bonds with dentin and enamel
B. High tensile strength
C. High abrasion resistance
The ingestion of fluoride ion in children prevents dental caries by:

A. Producing fluorapatite
B. Altering the developing enamel morphology
C. Creates zone of inhibition on root surfaces
Each of the following is an indication for restoration of a moderately sized abrasion/erosion lesion EXCEPT; the EXCEPTION is

A. Prevention of a carious lesion
B. Prevention of further erosion/abrasion
C. Esthetics
D. Sensitivity
E. Restoration of physiologic contour
Which of the following is represented by plastic deformation of a dental amalgam that is observed after prolonged exposure to a compressive load?

Creep
The phenomenon whereby various light sources produce different perceptions of color is called;

Metamerism
When there is a mesial and distal decay and very little dentinal support for either the facial or lingual cusp of a non-vital maxillary first premolar, the restoration of choice is which of the following?

A. Gold onlay
B. Gold inlay
C. Amalgam restoration
D. Amalgam onlay
Which of the following materials has a coefficient of expansion closest to that of tooth structure?

A. Glass ionomer
B. Amalgam
C. Composite resin
D. Calcium Hydroxide
The following represents the primary purpose of diet analysis:

- Determine sources of sucrose and other fermentable carbohydrates in diet
- Develop recommendation of diet modification including the increase of xylose-containing foods

A. True
B. False
Which of the following represents the primary means of diagnosing an early pit and fissure carious lesion?

A. Discoloration under surrounding enamel
B. Catch or stick with sharp explorer tine
C. Radiograph
D. Discoloration of pit and fissure
E. Patients caries risk index
Within an hour after a dentist cemented a cast gold onlay on an unanesthetized tooth, the patient complained of a shooting pain every time teeth contact. The probable cause is which of the following?

A. Galvanic response
B. Hyperocclusion
C. Excess cement left in sulcus
D. Failure to floss the restoration
Which of the following represents the best treatment of choice for a patient who has a high incidence of untreated cervical caries?

A. Glass ionomer restoration
B. Flowable composite resin
C. Hybrid composite resin
D. Amalgam
Which of the following microorganisms contributes to, but does not initiate caries progression?

A. Lactobacilli
B. Porphyromonas
C. StaphylocoCCI
D. Streptococci
E. Actinomyces
Which of the following teeth are least commonly involved with dental caries?

A. Mandibular incisors
B. Maxillary canines
C. Maxillary incisors
D. Maxillary premolars
E. Mandibular first premolars
Smooth surface lesions resulting from flexure of the tooth structure are known as which of the following?

A. Abfraction
B. Erosion
C. Abrasion
D. Attrition
Which of the following cements is LEAST soluble?

A. Resin
B. Zinc Phosphate
C. Glass ionomer
D. Zinc polycarboxylate
Which of the following represents the first step in the caries process on smooth surfaces?

A. Plaque formation  
B. Refined carbohydrate ingestion  
C. Sensitivity
In a Class II amalgam, which of the following is the best way to prevent displacement of the proximal box?

A. Use proximal retention grooves
B. Converge facial and lingual walls
C. Deepen axial wall
D. Extend the occlusal and create a dovetail
A dentist restored an endodontically treated tooth with a cast post and core and metallic crown. Three months later, the patient calls and complains of pain, especially biting. Tooth mobility is normal, as are the radiographs. The most probable cause is:

A. Vertical root fracture
B. Premature eccentric contact
C. Non-working interference
D. Post-operative dentinal sensitivity
Which of the following is the proper technique for seating an inlay during the initial trial placement on the tooth?

A. Finger pressure by dentist
B. Indirect pressure by biting on an Orangewood stick
C. Tapping using a mallet
D. Direct biting pressure by patient
A normal response for a tooth subjected to a temperature test is discomfort that subsides within;

A. 2-5 seconds
B. 5-10 seconds
C. 20-30 seconds
D. 40-60 seconds
To ensure better thermal and protective insulation of the pulp during a capping procedure, calcium hydroxide should be;

A. Covered with a stronger liner/base
B. Applied to a thickness of 3mm
C. Preceded by application of cavity varnish
D. Placed in all cavity preparations
A carious lesion in enamel that started in a pit that has reached the DEJ will usually be shaped like a;

A. Cone with the apex at the surface
B. Cone with apex at the DEJ
C. Round bur
Which of the following represents the initial consideration in the treatment planning process?

A. **Systemic evaluation**
B. Elimination of pain and discomfort
C. Taking a full mouth series of radiographs
D. Identifying the insurance plan
Because of the role that the maxillary canine plays in maintenance of occlusion and arch form, which of the following is the least satisfactory material for restoring the distal contact area?

A. Resin-modified glass ionomer
B. Composite resin
C. Amalgam
D. Gold inlay
After placing an MOD posterior composite resin, the patient complains of sensitivity to cold and biting pressure. The symptoms are relieved by preparing and placing an occlusal composite restoration within the existing composite. Which of the following is the cause of the sensitivity?

A. Polymerization shrinkage  
B. Microleakage  
C. Voids in composite  
D. Over light curing the restoration
It is acceptable to leave unsupported enamel at the;

A. Facial wall of a Class III composite preparation
B. Occlusal wall of a Class V amalgam preparation
C. Facial wall in a proximal box of a Class II amalgam preparation
Which of the following is the critical pH below which the dissolution of enamel begins?

A. 5.5  
B. 4.5  
C. 2.5  
D. 14
Each of the following is a function of rubber dams EXCEPT; the EXCEPTION is

A. Promotes use of water spray during rotary instrumentation
B. Reduces operating time
C. Optimizes the physical and chemical properties of the various filling materials
D. Improves visualization
A hybrid layer is formed after application of the etchant and primer. Which of the following describes the hybrid layer formed in dentin?

A. Resin within the remaining collagen network
B. Enamel and resin micromechanically bonded
C. Denatured intertubular dentin
D. Smear layer combined with resin
For which of the following clinical situations is replacement or repair of a Class II amalgam restoration NOT indicated?

A. Marginal ditching at the occlusal margins
B. Fracture line evident at the location of the axiopulpal line angle
C. Open proximal contact causing food impaction
D. Radiographic recurrent caries at the cervical margin of the proximal box
A 40-year-old patient presents with generalized loss of enamel on the occlusal surfaces of the molars and lingual surfaces of maxillary teeth. The dentin is flat and smooth. Existing amalgam restorations stick out above the surrounding tooth structure. Which of the following is the etiology?

A. Chemical erosion
B. Bruxism
C. Abrasion
D. Abfraction
Each of the following describes the properties of improved (reinforced) ZOE materials EXCEPT; the EXCEPTION is

A. They have better mechanical properties than all other luting agents
B. They have thermal insulation qualities that are comparable to dentin
C. They provide a good marginal seal
D. They have a palliative (sedative) effect on the dental pulp
Which of the following is true concerning the layers of infected and effected dentin in a carious lesion?

A. Infected dentin has bacteria
B. The infected dentin is in the innermost layer, closer to the pulp
C. It is desirable that only affected dentin be removed during cavity preparation
Which of the following is NOT classified as Class I caries?

A. Caries in gingival one-third of the buccal surface of tooth #18
B. Caries in a lingual pit of #8
C. Caries in the buccal pit of #30
D. Caries in lingual groove of #3