

# RESTORATIVE DENTISTRY III

## FINAL EXAMINATION

Dec. 11, 2007

32/40

### Instructions:

- Verify that you have an examination booklet with 30 questions.
- Write your name on the computer answer sheet as well as your personal ~~identification number~~ where indicated and blacken the appropriate circles with a # 2 pencil.  
Test scores will be posted by PINs.
- Sign and date the back of the computer answer sheet.
- Important ! Write the test code number (11 or 22) on the computer answer sheet in the "Test Code" field under "optional codes", and blacken the appropriate circles.
- For each question answered, blacken the appropriate circle on the computer answer sheet corresponding to the letter of your choice.
- Students are not permitted to ask questions of the proctors during the examination . Do your best to answer each question with the information provided.
- When you have completed the examination , turn in your answer sheet .  
and question booklet.

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## FINAL EXAMINATION

CODE 22

DECEMBER 11, 2007

- ✓ 1. Which of the following is not considered an ideal cast metal MOD inlay preparation feature?
- ✓ (A) 30° – 45° gingival bevel
  - B) Occlusal isthmus approximately one quarter intercuspal distance
  - C) Axial wall diverges occlusally ✓
  - D) Buccal & lingual proximal walls diverge occlusally
  - E) Gingival floor width (mesial-distal) 1 to 1.5 mm ✓
- ✓ 2. A radiograph of a seated cast gold onlay is usually not helpful in determining which of the following?
- 1-Buccal margin ✓      3-Occlusion ✓
  - 2-Proximal margins ✓      4-Proximal contacts ✓
- (A) 1 & 2    B) 1 & 3    C) 2, 3 & 4    D) 2 & 4    E) All four
3. Place the following cast gold onlay “try-in” procedure in proper sequence.
- 1-Evaluate proximal contacts      3-Remove internal nodules
  - 2-Finalize occlusal anatomy      4-Evaluate margin fit
- A) 1, 2, 3 & 4    B) 2, 3, 4 & 1    C) 4, 1, 3 & 2    D) 3, 4, 2 & 1    (E) 3, 1, 4 & 2
4. Ideal features of the posterior  $\frac{3}{4}$  metal crown preparation include proximal grooves extending approximately 2-4 mm incisogingivally.
- (A) True    B) False
5. As noted in lab. syllabus – Unit VIII, which of the following features & functions of the mandibular onlay preparation # 31 are accurate?
- ✓ 1-Functional cusp bevel provides retention ✓
  - 2-Bevels provide marginal integrity ✓
  - 3- Proximal boxes provide retention, resistance & structural durability ✓
  - 4-Buccal shoulder provides structural durability
  - 5-Proximal flares provide marginal integrity ✓
- (A) 1, 3 & 5    B) 1, 4 & 5    C) 2, 3, 4    (D) 2, 3, 4 & 5    E) All five
- ✓ 6. As Dr. Alpersteins's & Dr. Boberick's lectures stated, when reducing cusps for an onlay preparation, “capping” is more conservative than “shoeing”.

(A) True    B) False

7. As noted in the lab. syllabus, which of the following are ideal posterior three quarter crown preparation features?

- 1-1.5 mm supporting cusp reduction
- 2-Proximal grooves – 1 mm deep axially
- 3-Lingual cervical shoulder/bevel
- 4-Axial taper 6° to 16° (total)

A) 1 & 4 B) 1, 2 & 3 C) 2, 3 & 4 D) 1, 2 & 4 E) All four

8. With the ideal inlay preparation, retention is derived primarily from internal walls while with the onlay preparation, retention is derived from internal and external walls.

A) True B) False

9. Advantages of the cast gold onlay over large amalgam or composite resin restorations include:

- 1-Less cost
- 2-Fewer appointments
- 3-Greater biocompatibility
- 4-Better control of contours

A) 1, 2 & 3 B) 2, 3 & 4 C) 1, 3 & 4 D) 3 & 4 E) All four

10. Cast metal onlay fabrication includes: 1-maximum investment expansion and 2-die spacer preferred except for margins.

A) Statements 1 & 2 are true B) 1 is true; 2 is false C) 1 is false; 2 is true D) Both 1 & 2 are false

11. As stated in Shillingburg, when cementing a cast post & core, the use of a Lentulo spiral to spin cement into the root canal 1<sup>st</sup> can increase retention by as much as 90%.

A) True B) False

12. The prognosis for the cast post & core restoration will be compromised if the following criteria are not met:

- 1-Post diameter should be no more than 2/3rds of the root diameter at the cej
- 2-Dowel length should equal crown length or 2/3<sup>rd</sup> the length of the root
- 3-Minimum ferrule length of 1 mm
- 4-Leave minimum 4 mm of gutta percha remaining apically

A) 1 & 3 B) 2 & 3 C) 1, 2 & 4 D) 2, 3 & 4 E) All four

13. When treatment planning an endodontically treated tooth for a post & core build-up which of the following is least important?

- A) Role of the tooth in the overall treatment plan
- B) Quality and quantity of remaining coronal tooth structure
- C) Location in arch
- D) Age of the adult patient

✓ 14. Characteristics of composite for a core build-up of an endodontically treated tooth include:

- ✓ 1-Absorption of water degrades mechanical properties
- ✓ 2-Adequate strength
- ✓ 3-Polymerization shrinkage decreases de-bonding and leakage
- 4-Mechanical undercuts are recommended
- ✓ 5-Must wait 24 hours before crown preparation

A) 1, 3 & 4 (B) 1, 2, 3 & 4 C) 2, 4 & 5 D) 1, 2 & 4 ~~E) All five~~

15. Which of the following is/are general characteristic( s) of endodontically treated teeth?

- 1-Ability to deform under applied loads increases
- 2-Dentin loses moisture and becomes brittle

(C) ~~A) Both 1 & 2 are true~~

B) 1 is true; 2 is false

(C) 1 is false; 2 is true

~~D) Both 1 & 2 are false~~

16. Shillingburg states that the success rate for dowel (post) treated teeth can increase to more than 95% when the dowel length equals or exceeds the length of the crown.

(A) True B) False

17. As noted in Shillingburg, prefabricated posts - 1- can be classified by retention mechanism: passive (cemented) or active (threaded) and 2-the threaded posts produce more stress in the tooth than cemented posts.

(A) Both 1 & 2 are true

C) 1 is false; 2 is true

B) 1 is true; 2 is false

D) Both 1 & 2 are false

18. A cast post & core is preferred over a prefabricated post for endodontically treated teeth -

(B) A) when there are more than three remaining coronal walls of the tooth

B) when there are less than three remaining coronal walls of the tooth

19. Which of the following (as per Shillingburg) are attributed to the Ferrule Effect?

1-Counteract lateral forces exerted during post insertion ✓

2-Counteract wedging effects of a tapered dowel ✓

3-Counteract functional lever forces

4-Encircling band of cast metal around the coronal surface

A) 1 & 3 B) 2 & 3 C) 1, 3 & 4 D) 2, 3 & 4 (E) All four

✓ 20. Which of the following is not an anti-rotational feature for cast posts?

A-Canal orifice notch

(B) Retaining natural canal wall contours

C-Utilize additional canal

D-Amalgapost

21. Indication for porcelain laminate veneers include all but one of the following:

- A) Enamel hypocalcification ✓
- B) Closure of diastema (minor) ✓
- C) Anatomically malformed anterior teeth ✓
- D) Edge to edge anterior occlusion
- E) Tetracycline staining

✓ 22. The amount of incisal reduction (Shillingburg) for the porcelain laminate veneer is determined by:

- 1-Faciolingual thickness of tooth ✓
- 2-Occlusal considerations
- 3-Need for esthetic lengthening ✓
- 4-Laminate veneer stress concentration considerations

A) 1 of above B) 2 of above (C) 3 of above D) None of above E) All four

23. Which of the following is not necessarily a porcelain laminate veneer classic preparation goal?

- A) Facial reduction of .3 - .5 mm ✓
- B) Extend into dentin only when necessary ✓
- C) Gingival margin chamfer ✓
- D) 2 mm incisal reduction ✓
- E) Contact area generally not prepared (not broken) ✓

24. When arch vital tooth bleaching is part of the patient's treatment plan it should be accomplished :

- (A) Prior to fabricating the porcelain laminate veneer
- B) After fabricating the porcelain laminate veneer

25. Using information from lecture and text, place the following porcelain laminate veneer cementation steps in proper sequence.

- 1-Place resin cement on veneer & seat on tooth
- 2-Light cure
- 3-Apply silane coupling agent to veneer
- 4-Etch veneer and tooth
- 5-Place Mylar strip interproximally -

(A) 5, 4, 3, 1 & 2 B) 4, 5, 1, 3 & 2 C) 5, 3, 4, 1 & 2 D) 4, 3, 5, 1 & 2

26. Tooth preparation for the posterior resin bonded FPD include all but one of the following:

- A) Lower proximal height of contour approximately 2 mm
- B) Occlusal rest seat depth 1 to 1.5 mm
- (C) Encircle tooth at least 120° - 180°
- D) Occlusal rest faciolingual dimension 1.5 to 2 mm
- E) Proximal grooves

27. The properly designed standard resin bonded FPD is best able to handle which of the following forces?

- A) Shear ~~B) Tensile~~ C) Compressive A or C

28. The Virginia resin bonded bridge is primarily associated with one of the following bonding systems/techniques?

- A) Net-like mesh C) Perforations  
B) Electrochemical etching D) Salt crystals in retainer pattern

29. The Maryland resin bonded bridge relies on which of the above choices for its retention?

- A) B) C) D)

30. General periodontal diagnostic considerations normally obtained from radiographs, as noted in Dr. Appleby's lecture, include all but one of the following:

- A) Bone loss ✓ D) Caries  
B) Furcation involvement E) Biologic width  
C) Mobility m

31. As a general guide for tooth extrusion (Shillingburg), when tooth destruction extends 1 mm apical to the alveolar crest, \_\_\_\_ mm of extrusion would normally be necessary.

- A) 1 mm B) 2 mm C) 3 mm D) 4 mm E) 5 mm

32. As noted in Shillingburg, when designing the lingual surface of a PFM preparation on a maxillary central incisor, the preferred centric contact with the natural mandibular incisor, from most preferred location to least would be:

- 1-Porcelain contact 2, 1, 3  
2-Metal contact  
3-Porcelain/metal junction

- A) 1, 2 & 3 B) 3, 2 & 1 C) 2, 1 & 3 D) 2, 3 & 1 E) 1, 3 & 2

The following eight questions are based on material from O'Brien

33. General indications for dental implants (except for ramus frame) include;

- 1-completely or partially edentulous patients  
2-Poor patient motivation/hygiene ✓  
3-Adequate bone support  
4-Specific arch location

- A) 1 & 3 B) 1, 2 & 3 C) 2 & 4 D) 1, 3 & 4 E) All four

34. Blade form dental implants are the most commonly used implants in clinical practice today.

✓ A) True (B) False

35. The primary factor dictating clinical outcomes with dental implants is:

- B
- A) Specific implant used ✓
  - (B) Clinician's expertise and surgical technique
  - C) Patient compliance ✓
  - D) Patient expectations ✓
  - E) Patient sensitivity to implant components ✓

36. Which of the following are considered contraindications for a dental implant?

- D
- 1-Pregnancy ✓
  - 2-Patients with poor oral hygiene ✓
  - 3-Inadequate practitioner training ✓
  - 4-Previously unsuccessful denture wearers
  - 5-Debilitating or uncontrolled disease ✓

A) 1, 2 & 3 B) 1, 2 & 4 C) 2, 3 & 5 (D) 1, 2, 3 & 5 E) All five

37. Dental implants are classified into the following primary categories:

- C
- 1-Transosteal - 3-Endosteal 5) Screw threaded
  - 2- Submucosal - 4-Subperiosteal

A) 1, 2 & 3 B) 1, 2 & 4 (C) 1, 3 & 4 D) 3, 4 & 5 E) 1, 3 & 5

38. As noted in O'Brien, studies indicate that:

- D
- 1-Maxillary implants are generally more successful than mandibular implants
  - 2-The posterior maxillary implant is the most favorable location.

A) Both statements are true C) 1 is false; 2 is true  
B) 1 is true; 2 is false (D) Both statements are false

39. Surface configurations of dental metal implants include:

- E
- 1) Textured 3) Screw threaded
  - 2) Porous coated 4) Plasma sprayed

A) 1 & 2 B) 2 & 3 C) 2, 3 & 4 D) 1, 3 & 4 (E) All four

40. One of the reasons titanium based implant materials are well tolerated by the body is due to their passive oxide layers.

A) True (B) False