

55
-12
43

43
55 = 78

TEMPLE UNIVERSITY
School of Dentistry

Department of Restorative Dentistry

Not corrected

RESTORATIVE DENTISTRY V
D553

Final Examination
December 18, 2002

TEST CODE NUMBER: 01

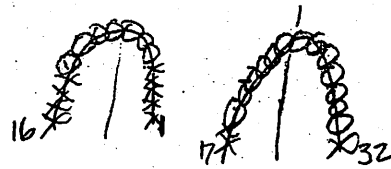
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INSTRUCTIONS:

- Verify that you have a question booklet with seven pages and fifty-five questions.
- Write your name on the computer answer sheet as well as a nine-digit personal identification number of your choosing in the field labeled "Social Security Number" and blacken the appropriate circles with a #2 pencil. *Note: Test scores will be posted using PINs.*
- Sign and date the back of the computer answer sheet.
- **IMPORTANT!!**
Write the Test Code Number (above) 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 computer answer sheet. You may keep the question booklet.

ZIP

Use the description below to answer the eight questions that follow.



Patient A -- a 53 year old male in good overall health -- presents with the following natural teeth: #6 -12 in the maxillary arch, and #19 - 31 in the mandibular arch. Some of the remaining teeth have small to moderate size amalgam and composite resin restorations, most of which appear to be satisfactory. The periodontal diagnosis is localized mild chronic periodontitis. The treatment plan includes an all-metal crown for #12, and a removable partial denture with conventional clasps to replace teeth #2, 3, 4, 5, 13 and 14.

1. The present arrangement of remaining teeth in the maxilla is categorized as Kennedy Class

- a. I
- b. II
- c. III
- d. IV

2. Is the "triple tray" impression procedure a good option for creating a master cast and die for tooth #12?

- a. yes; a triple tray is indicated for any single posterior crown
- b. no; the triple tray technique usually produces an inaccurate centric occlusion relationship
- c. yes; fewer occlusal adjustments are needed when crowns are fabricated from triple tray impressions compared to other techniques
- d. no; a wax pattern for an abutment crown cannot be surveyed correctly on a quadrant impression

3. Which one of the following statements correctly describes a relationship between Patient A's maxillary and mandibular oral structures?

- a. an acceptable tripod of opposing occlusal contacts is present and the teeth are in contact
- b. edentulous areas are present on the opposing cast where tripod stops are needed
- c. an acceptable tripod of opposing contacts is present, but the teeth are out of contact
- d. edentulous areas are present on the working cast where tripod stops are needed

4. Assuming full-arch casts will be mounted on an articulator to make the crown for tooth #12, what kind of occlusal registration would be most accurate?

- a. resin recording base with wax occlusal rim fabricated on the maxillary master cast
- b. resin recording base with wax occlusal rim fabricated on the mandibular cast
- c. sectional hard-set resin registrations to record the posterior tripod stops
- d. sectional resilient polyvinylsiloxane registrations to record the posterior tripod stops

Patient A states that his posterior teeth have been missing for "several years" and the opposing teeth have erupted (extruded) about 2 mm beyond the normal plane of occlusion. In this case, the most reasonable way to improve the plane of occlusion is to

- a. remove some enamel from the occlusal surfaces of the extruded natural teeth (odontoplasty)
- b. fabricate onlays for all of the extruded teeth
- c. fabricate crowns for all of the extruded teeth
- d. open the vertical dimension of occlusion by 2 mm with the removable partial denture

What is the optimum number of rests for Patient A's RPD?

- a. one
- b. two
- c. three
- d. four

I 2,2
II 3,1
III 4
IV 4,2

Which one of the following complications is likely to be encountered while fabricating the RPD if Patient A has a Class II occlusion and an extremely deep overbite?

- A
- a. inadequate room for cingulum rests and minor connectors
 - b. poor retentive contours of the abutment teeth
 - ☒ c. loss of retention of the denture in protrusion
 - d. excessive flexing of the major connector in function

8. Opening Patient A's vertical dimension of occlusion with the new RPD would result in increased risk of

- A
- ☒ a. super-eruption (extrusion) of the incisors
 - b. occlusal trauma to the incisors
 - c. accelerated wear of the incisors
 - d. dental caries affecting the incisors

For each of the following 25 questions indicate whether the statement is true or false. (a = true, b = false)

A 9. A custom incisal guide table is most useful when restoring or replacing anterior teeth with crowns and fixed prostheses and least useful for posterior teeth.

B 10. A tooth prepared for a crown with 20° of total occlusal convergence (TOC) offers greater resistance and retention than the same tooth prepared with 50° of TOC.

A 11. Of all the steps in the lost wax method of producing a metal casting for a crown, the greatest amount of shrinkage occurs in the casting step as the metal goes from liquid to solid.

A 12. The main reason for using die relief when making a wax pattern for a crown is to permit full seating of the restoration at the time of final cementation.

A 13. One of the most favorable characteristics of zinc phosphate cement when used as a luting material is low film thickness, which can be as little as 25 μ. *40μ?*

A 14. The original glass ionomer cement was derived from the silicate and the polycarboxylate cements.

A 15. In the process of making a cast post and core, the remaining tooth structure should be prepared for crown coverage before the burnout pattern is fabricated.

B 16. As a rule of thumb, the ratio of the length of the post portion of a cast post and core to the length of the core portion should be 1:1. *1:2*

A 17. The term "biologic width" is synonymous with "gingival attachment".

A 18. Viscostat™ is a solution of ferric sulfate, which acts as an astringent.

B 19. The largest diameter retraction cords are used for molars and the smallest diameter cords for incisors.


A ~~B~~ 20. From Vita shade A1 to shade A4 there is an increase in chroma. *↓*

A 21. The easiest way to distinguish the hues of the four Vita color families (A, B, C, D) is to view the shade tabs with the highest chroma against a gray or bluish-gray background.

A 22. The change in an object's apparent color under different sources of light is known as metamerism.

B 23. The final length of the flanges of a custom edentulous impression tray is best determined by making the borders 2 mm short of the vestibular fold on the preliminary plaster cast.

visual inspection

24. Patients who exhibit mild to moderate inflammatory papillary hyperplasia under ill-fitting dentures are often unaware of the condition because it is not painful.
25. The "mmm" or humming test is used in complete denture construction to verify the presence and amount of freeway space.
26. If a card of denture teeth is stamped "S45C", the "C" indicates that the teeth are characterized with white and brown pigments to mimic the imperfections commonly seen in natural teeth.
27. The vibrating line represents the junction of the hard and soft palates.
28. Rest seats and guide planes are features found on removable partial denture frameworks.
29. When surveying potential abutment teeth for a RPD, tilting the cast down anteriorly will increase the apparent magnitude of the mesial undercuts.
30. An abutment tooth for a RPD that will receive a circumferential clasp assembly has a survey line for the retentive arm that is relatively high near the guide plate and slopes downward (toward the gingiva) away from the guide plate. *retain + resist*
31. Sore spots under the resin bases of recently delivered complete and removable partial dentures are often caused by occlusal interferences that destabilize the prostheses while in function.
32. An important reason for instructing an edentulous patient to protrude the tongue during the preliminary mandibular impression is to record the influence of the mylohyoid muscle on the floor of the mouth.
33. The purpose of border molding a custom edentulous impression tray is to determine the ultimate length and thickness of the denture flanges so that very little adjustment is needed at the time of delivery.
34. The most likely consequence of restricting the size of the gingival embrasure (making it too small) between adjacent PFM crowns or between abutment crowns and pontics is
- occlusal trauma
 - food impaction
 - gingival inflammation ✓
 - restorations that appear too narrow
- 
35. Tooth # 8 is prepared for a conventional PFM (high noble) crown. The facial surface of the correctly contoured provisional restoration for that tooth should be at least ____ mm thick.
- 1.7
 - 1.4 ✓
 - 1.2
 - 1.0
 - 0.7
36. A "pick-up" impression is most commonly used to
- make a refractory cast for a resin-bonded bridge or RPD framework
 - create a master die for the fabrication of a metal casting
 - transfer a dental appliance or restoration (e.g., metal casting) from the mouth to a new cast ✓
 - determine the occlusal relationship of maxillary and mandibular casts
 - make an "altered cast" for the fabrication of a new RPD

The most reliable method for relating maxillary and mandibular casts in centric occlusion (CO) where all of the teeth are present, but all of the maxillary teeth have been prepared for crowns is

- E
- a. 3 segmental CO registrations (1 ant., 2 post.) made from a flexible PVS material
 - b. a single full-arch CO registration made from a flexible PVS material
 - c. hand articulation
 - d. a single full-arch CO registration made from a rigid material, such as Duralay™
 - e. 3 segmental CO registrations (1 ant., 2 post.) made from a rigid material, such as Duralay™

38. All of the following are likely results of routinely placing margins deeply into the gingival crevice during crown preparation EXCEPT which one?

- C
- a. gingival recession ✓
 - b. traumatic impression-making ✓
 - c. lower incidence of secondary caries
 - d. chronic gingival inflammation ✓

39. The material advocated in lecture for making a solder index for a fixed partial denture is

- A
- a. cold cure acrylic resin
 - b. polyvinylsiloxane putty
 - c. dental stone
 - d. green stick compound

40. The optimal occlusogingival thickness of a solder joint connecting two sections of a bridge substructure is about

- D
- a. 0.3 mm
 - b. 0.7 mm
 - c. 1.0 mm
 - d. 2.0 mm

41. All of the following cements require an intermediary material applied to vital dentin before luting EXCEPT which one?

- B
- a. zinc phosphate cement
 - b. resin-modified glass ionomer cement
 - c. dual cure composite resin cement
 - d. VLC composite resin cement

42. Zinc oxide and eugenol temporary cement

- A
- a. contains a compound that is incompatible with resin cements
 - b. provides a poor marginal seal for provisional crowns
 - c. has a higher compressive strength than polycarboxylate cement
 - d. promotes post-operative sensitivity of vital teeth

43. Which one of the following relationships involving vertical dimension of occlusion (VDO), vertical dimension at rest (VDR) and freeway space (FWS) is correct?

- E
- a. $VDO + VDR = FWS$
 - b. $VDO - VDR = FWS$
 - c. $VDO - FWS = VDR$
 - d. $VDR + FWS = VDO$
 - e. $VDR - FWS = VDO$

$$VDR - VDO = FWS$$

$$VDR = FWS + VDO$$

$$VDO = VDR - FWS$$

44. Which one of the following statements is most reasonable concerning residual ridge resorption in edentulous adults?

- A
- a. the etiology of ridge resorption is multifactorial, but little is known about which factors are dominant ✓
 - b. the most important etiologic factor for ridge resorption is the patient's overall medical health status
 - c. edentulous men are at higher risk for rapidly progressive ridge resorption than edentulous women
 - d. progressive ridge resorption is predictable and occurs at the same rate in most edentulous adults

X Which of the following is/are verified or determined during the complete denture wax try-in visit?

- E
- a. final position of the posterior border of the maxillary denture base
 - b. contacting relationship of the posterior teeth in centric relation closure ✓
 - c. amount of freeway space when the mandible is at rest ✓
 - d. two of the above
 - e. a, b and c above

46. All of the following are disadvantages of the immediate complete denture technique EXCEPT which one?

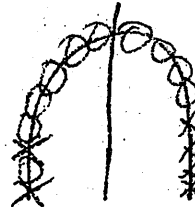
- D
- a. anterior esthetics cannot be verified before the denture is processed ✓
 - b. the prosthesis is more costly to the patient than a conventional complete denture ✓
 - c. frequent post-insertion appointments are required ✓
 - d. a new denture usually must be made after 6-12 months
 - e. the denture usually requires relining after a comparatively short time in service ✓

X Which of the following procedures is recommended 2-14 days after inserting an immediate complete denture?

- D
- a. hard reline with acrylic resin
 - b. soft reline with tissue conditioner
 - c. surgical recontouring of the anterior oral mucosa
 - d. remount and occlusal adjustment on the articulator

48. Which one of the following major connectors would be most appropriate for a patient with these maxillary conditions: missing teeth #s 1, 2, 3, 4, 13, 14, 16; healthy periodontium; normal palatal vault?

- D
- a. posterior palatal strap
 - b. anterior palatal strap
 - c. complete palatal plate
 - d. anterior-posterior palatal strap
 - e. posterior palatal bar



X In which of the following cases would one fabricate the prostheses in the centric relation position?

- E
- a. a maxillary complete denture opposing a mandibular complete denture ✓
 - b. a maxillary complete denture opposing a mandibular RPD ✓
 - c. a maxillary RPD replacing all of the posterior teeth opposing an intact mandibular arch of natural teeth with a satisfactory occlusal plane
 - d. two of the above
 - e. a, b and c above

50. When preparing natural teeth to serve as abutments for a new RPD, which one of the following steps should be completed first?

- B
- a. prepare the rest seats
 - b. prepare the guide planes
 - c. adjust the enamel of the axial surfaces to modify the survey line
 - d. add composite resin to the facial surfaces in order to increase the retentive undercuts

51. If an impression is to be made for the fabrication of a RPD framework and that impression is to be mailed to a dental laboratory, which of the following materials could be used successfully?

- D**
- a. polyether
 - b. polyvinylsiloxane ✓
 - c. polysulfide ✓
 - ☒ d. two of the above
 - e. a, b and c above

52. When a tooth-borne RPD framework is placed in the mouth, it should

- B**
- a. increase the vertical dimension of occlusion slightly
 - ☒ b. allow the patient to close into centric occlusion
 - c. keep the anterior teeth separated by 0.5 mm
 - d. eliminate the patient's centric slip

53. In the process of making a removable partial denture, the primary goal of the altered cast procedure is to

- D**
- a. ensure complete coverage of the retromolar pad and the buccal shelf
 - b. reduce the need for adjustments of the metal framework
 - c. improve the adaptation of the denture in the rest seat areas
 - ☒ d. provide optimal ridge support for the denture base(s) against occlusal loading

54. If error is introduced in the altered cast technique, it is most likely to occur by

- A**
- ☒ a. pushing on the impression tray area(s) when making the secondary impression ✓
 - b. failing to provide a water-tight seal when boxing the secondary impression
 - c. exerting excessive pressure on the rest seats when making the secondary impression
 - d. overextending the impression trays when border molding

55. The gift I'd like most during this holiday season is

- all**
- a. two tickets to see the Temple women's basketball team
 - b. Saddam's head on a stick
 - c. the Eagles in the Super Bowl
 - ☒ d. a hug from Mom and a home cooked meal
 - e. a resurgence of common sense in American politics

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BEST WISHES
for a
HAPPY AND PRODUCTIVE
NEW YEAR!