


Spring 2004

Corrected

RPD Quiz #3

First initial of last name: 

Student Name 

15 Minutes

Good

90%

Instructions: Please print all written answers. If the row instructor cannot read your answer, they cannot be graded. There is only one word for each blank space.

Grading:

All questions are worth 10 points

90-100 = A

80-88 = B

78-70 = C

68 and below = F

1. An indirect retainer is defined as:
 - ☐ (a) The component of a RPD that assists the direct retainer(s) in preventing displacement of the distal extension denture base away from the tissues
 - ☐ (b) The component of a RPD that assists the bracing arm in stabilization and prevents horizontal displacement of the distal extension
 - ☒ (c) A metal component of the RPD located anterior to the fulcrum line
 - ☐ (d) a and c
 - ☐ (e) b and c

2. Which of the following statements are CORRECT regarding movement of the RPD:
 - ☒ (a) Movement of the RPD does not depend on the location of the abutment teeth
 - ☐ (b) Occurs around fulcrum and cross-sectional surfaces of the metal framework
 - ☐ (c) Occurs only if abutment teeth are inclined
 - ☒ (d) Is resisted by indirect retainers

3. Select the CORRECT comparative differences between cobalt-chromium and nickel-chromium alloys. (Select only one answer)
 - ☒ (a) Nickel-chromium is a high heat alloy and cobalt-chromium is low heat
 - ☐ (b) Cobalt-chromium is a coarse grain alloy and nickel-chromium is fine grain
 - ☐ (c) Nickel-chromium requires an oxyacetylene torch and cobalt-chromium requires induction casting
 - ☐ (d) Nickel-chromium requires phosphate-bonded investment and cobalt-chromium requires gypsum-bonded investment

best command full

The borders of the anterior portion of an anterior-posterior strap major connector should follow the valleys of the rugae rather than being placed on the crest of the rugae in order to:

- (a) Avoid irritation to the tongue
- (b) Limit the entrapment of food under the major connector
- (c) Increase flexibility of the major connector without affecting occlusion
- (d) (a) and (b)
- (e) (a), (b), and (c)

5. List two counteractive mechanisms found in the RPD when a patient is chewing sticky foods. (Partial credit will be given)

a. indirect retainers, b. retentive arms

6. Mr. Jones has lost his lower denture. During his visit Dr. Toothacker, the next day, he was told that all of his remaining teeth were caries-free and periodontally sound. However, he was missing tooth numbers 28-32 and needed a new RPD. Based on this clinical situation, what is the Kennedy classification?

- (a) Class I
- (b) Class II
- (c) Class III
- (d) Class IV

B on bubble sheet

7. Based on question #6, how many indirect retainers would be required for the metal framework?

- (a) 1 or 2
- (b) 3 or 4
- (c) 4 or 5
- (d) No indirect retainers are required

A on bubble sheet

8. List five laboratory steps required when fabricating a RPD metal framework. (Partial credit will be given)

Design transfer, Blockout, Relief, Beading, Investment

9. When fabricating a RPD framework, blockout procedures are performed to:

- (a) Eliminate undercuts on the master cast that will be crossed by rigid components of the RPD
- (b) Facilitate placement of wax pattern for clasp arms
- (c) Prevent withdrawal of the cast from duplicating material
- (d) a, b and c
- (e) a and b

10. Select the impression material used to fabricate the refractory cast for a RPD framework.

- (a) Vinyl polysiloxane
- (b) Irreversible hydrocolloid
- (c) Agar
- (d) Alginate

First Initial of Last Name 9025

Name _____

RDIV—Complete Denture Section

Quiz #3

Lab Seat _____

40 minutes

Please answer the following questions to the best of your ability. All essay questions must be **LEGIBLE**. If they cannot be read, they will not be graded.

Please print! All questions are worth 10 points.

1. What is the occlusal plane? What landmark is used to determine the extent of the occlusal plane? Describe a method to determine the plane of occlusion in edentulous patients. A horizontal plane that represents a height, roughly halfway between the total depth of the maxillary and mandibular vestibules in occlusion.
Landmark = retromolar pad (plane should be $\frac{1}{2}$ this height.)
Method = Mark the midpoint of the retromolar pad on the master buccal to the residual ridge? What happens if they are set too far lingual to the residual ridge?
Camper's Line
Fox Plane
2. In an anatomic wax set-up, what happens when posterior teeth are set too far buccal to the residual ridge? What happens if they are set too far lingual to the residual ridge?
Too buccal - Support to denture compromised; denture prone to tipping.
Too lingual - stability of denture compromised; denture prone to rotation.
(extend a horizontal line on the edge of the cast.)
3. Define retention, stability, and support for the edentulous patient.
Retention - ability to resist occlusally directed forces (away from residual ridge)
Stability - ability of denture to resist horizontally directed forces (Rotation, lateral displacement).
Support - ability of denture to resist vertically directed forces (Tipping).
4. What is the purpose of a clinical remount in complete denture fabrication?
To remount the denture on the articulator according to the patient's occlusion (with the new denture in place.)
finished

Aluwax used for centric occlusion record.

5. What is the significance of the posterior palatal seal? What is the depth and lateral extent of the bead in this area?

To compensate for polymerization shrinkage of the acrylic resin and minor displacement of the denture in functional habits.

Depth = 1 mm

Lateral extent = hamular notch

6. What method and speech sound is most useful in determining the vertical dimension of occlusion.

Method = centric occlusal record in Aluwax.

Speech sound = "p", "b"

7. Of the five factors in the Hanau's Quint, which factors are under the greatest control of the dentist?

Incisal guidance, compensating curve, cusp height.

8. Once the proper incisal pin position is determined and set, why must the incisal pin maintain contact throughout denture fabrication?

To maintain the VDO and to prevent wear of the residual ridges on the stone cast (from vertical forces of occlusion of overlying denture.)

9. Why is centric relation used when making complete dentures?

Because the slope of the articular eminence and the Bennett angle (medial wall of condylar fossa) affect the cusp height of the denture teeth and the occlusal pattern.

10. Describe ALL of the problems created when the vertical dimension of occlusion is closed excessively in relation to the vertical dimension of rest of the patient.

Problems due to excessive VDO:

- Resorption of residual ridge
- cusp fracture
- TMJ pain
- Bruxism
- Angular Cheilitis
- Facial collapse

EXTRA CREDIT: 10 points will be given IF BOTH questions are answered correctly. No partial credit given. The 10 points can ONLY increase NOT decrease your grade for this quiz only. Do not use more than 3 sentences for each question.

Name _____

11. What is the clinical significance for border molding of a distal extension RPD?

Gives you knowledge of border tissues and the structures which influence its movement. An impression of this assists in being able to take advantage of the total area available for the RPD.

12. When setting teeth on the occlusal wax rim, the central fossa of a denture molar tooth

appears to be buccal to the crest of the ridge as compared to the other teeth in the edentulous area. What steps should be performed to correct the situation?

First, find out if the molar is too far buccal or if the other teeth are too far lingual. Doing another occlusal analysis and/or a central rotation record will help with this. Then, remount the teeth.

Continuation of # 11:

This intenn is necessary for the RPD to be able to withstand vertical and horizontal forces.

Student Name _____

Row/Seat Number _____

70

Instructions: Please print all written answers. No partial credit given. If the row instructor cannot read your answer, they cannot be graded. There is only one word for each blank space.

Grading:

All questions are worth 10 points

90-100 = A

80-88 = B

78-70 = C

68 and below = F

1. Which of the following factors determines the amount of retention that a clasp is capable of generating?
 - (a) Degree of the angle of cervical convergence
 - (b) How far into the angle of cervical convergence the clasp terminal is placed
 - (c) Flexibility of the clasp arm
 - (d) All of the above are correct
2. Mr. Jones has lost his lower denture. During his visit with Dr. Toothacker, the next day, he was told that all of his remaining teeth were caries-free and periodontally sound. However, he was missing tooth numbers 22-28 and needed a new RPD. Based on this clinical situation, what is the Kennedy classification?
 - (a) Class I
 - (b) Class II
 - (c) Class III
 - (d) Class IV
3. Based on question #2, how many direct retainers would be required for the metal framework?
 - (a) 1
 - (b) 2
 - (c) 4
 - (d) No direct retainers are required
4. Denture resin packing is defined as: When resin is placed on the framework and cured
5. List two objectives of a functional impression.
 - a. Provide max surface area
 - b. Distribute the workload evenly
6. Occlusal analysis is defined as: relating the position of the mandibular arch to the maxillary arch. Ideally, CO=CP.

7. When making a functional impression, the framework should be seated in the mouth and held in place in the following manner:
- (a) Press on the edentulous area to stabilize the tray
 - (b) No specific position is required when seating the impression
 - (c) Press on the metal rests of the framework
 - (d) Allow the patient to hold the impression

Dr. Toothacher has just completed a functional impression for his patient Mrs. Jones. He promised his patient that she would have her Class I lower partial in 24 hours. Unfortunately, his laboratory is no longer in business. Dr. Toothacher has therefore decided to do the work himself. Based on this scenario, answer questions 8-10:

8. List two laboratory techniques that Dr. Toothacher can use to pour-up the functional impression.
- (a) Beading + Boxing wax
 - (b) North Carolina Technique
9. To section the edentulous area(s), what measurements should Dr. Toothacher use?
- (a) 1 mm from the lingual slope of the residual ridge and 5 mm from the distal abutment
 - (b) 2 mm from the lingual slope of the residual ridge and 10 mm from the distal abutment
 - (c) Sectioning of the cast is not required for a Kennedy Class I or Class III clinical situation
 - (d) None of the above
10. After the impression has been poured, Dr. Toothacher notices a small amount of stone on the occlusal surfaces of the teeth. Select the most appropriate response(s) that could have caused this problem.
- (a) The framework was luted to the master cast ^{NOT}
 - (b) Excess impression material was removed from the non-edentulous areas ^{no effect}
 - (c) The cast was properly sealed with wax and verified with slurry water
 - (d) a and c ^{NOT}
 - (e) None of the above

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11. What is the clinical significance for border molding of a distal extension RPD?
- To record the functional movements surrounding the DE; Record the DE in the correct length and width so that excess pressure is not placed on the
12. Define intaglio surface: the underside of a residual framework that touches SOFT TISSUE ridge.

RPD Quiz #3

RPD Quiz #1

First Initial of last Name

20 MINUTES

Student Name

Row/Seat Number

80

Instructions: Please print all written answers. No partial credit given. If the row instructor cannot read your answer, they cannot be graded. There is only one word for each blank space.

Grading:

All questions are worth 10 points

90-100 = A

80-88 = B

78-70 = C

68 and below = F

Corrected

1. The rationale for providing a mesio-occlusal rest seat on a terminal abutment adjacent to a distal extension area rather than using a disto-occlusal rest seat is to:
- (a) Place the rest seat closer to the adjacent tooth and enhance denture retention during vertical movement away from the residual ridge
- (b) Enhance horizontal movement of denture base with less soft tissue impingement adjacent to distal abutment
- (c) Allow vertical movement of denture base with less soft tissue impingement adjacent to distal abutment
- (d) All of the above are correct
2. Mr. Jones has lost his lower denture. During his visit with Dr. Toothacker, the next day, he was told that all of his remaining teeth were caries-free and periodontally sound. However, he was missing tooth numbers 22-28 and needed a new RPD. Based on this clinical situation, what is the Kennedy classification?
- (a) Class I
- (b) Class II
- (c) Class III
- (d) Class IV
3. Based on question #2, how many direct retainers would be required for the metal framework?
- (a) 1
- (b) 2
- (c) 4
- (d) No direct retainers are required

4. A remount procedure is defined as: Doing another centric relation record when the RPD has been returned from the lab

5. List four objectives of a functional impression.
 a. maximum surface area b. Support and Stability
 c. distributes workload evenly d. decreases ischaemia of denture bearing areas when denture is at rest
6. Occlusal analysis is defined as: examination of occlusion when interocclusal relations are mounted and evaluated
7. Which one of the following statements is FALSE?
 a) ☒ Melting temperatures of base metal RPD alloys are significantly lower than those of dental gold. higher
 b) Chromium-containing RPD alloys are about 30% harder than Type IV gold.
 c) The modulus of elasticity (stiffness) of cast base metal alloys is about twice that of cast gold alloys.
 d) Chromium-type casting alloys are lighter than their gold alloy counterparts.
 e) Allergic responses to the constituents of base metal alloys, especially nickel, are observed occasionally.

Dr. Toothacher has just completed a functional impression for his patient Mrs. Jones. He promised his patient that she would have her Class I lower partial in 24 hours. Unfortunately, his laboratory is no longer in business. Dr. Toothacher has therefore decided to do the work himself. Based on this scenario, answer questions 8-10:

8. List two laboratory techniques that Dr. Toothacher can use to pour-up the functional impression.
 (a) bead and box with wax
 (b) North Carolina technique
9. To section the edentulous area(s), what measurements should Dr. Toothacher use?
 (a) 1 mm from the lingual slope of the residual ridge and 5 mm from the distal abutment
 (b) 2 mm from the lingual slope of the residual ridge and 10 mm from the distal abutment
 (c) Sectioning of the cast is not required for a Kennedy Class I or Class III clinical situation
 (d) ☒ None of the above
10. After the impression has been poured, Dr. Toothacher notices a small amount of stone on the occlusal surfaces of the teeth. Select the most appropriate response(s) that could have caused this problem.
 (a) The framework was luted to the master cast ✗
 (b) Excess impression material was removed from the non-edentulous areas
 (c) The cast was properly sealed with wax and verified with slurry water
 (d) a and c
 (e) ☒ None of the above

90

First initial of last name: _____

RPD Quiz #3

20 minutes

Student Name _____

Row/Seat No. _____

Instructions: Please **print** all written answers. **No partial credit given.** If the instructor cannot read your answer, they cannot be graded.

Grading:

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90-100 = A

80-88 = B

78-70 = C

68 and below = F

1. Name two investment materials used in casting base metal alloys for removable partial dentures.

a). PHOSPHATE
b). SILICATE

2. Mr. Jones has lost his lower denture. During his clinical examination with Dr. Toothacker, the following results were revealed: High lingual frenum attachment, amalgam restorations required for tooth numbers 27 and 28, with tooth #s 17-20 and 30-32 were missing. Based on this clinical situation, what is the Kennedy classification?

(a) Class I
(b) Class II
(c) Class III
(d) Class IV

3. Based on question #2, how many direct retainers would be required for the metal framework?

(a) 1
(b) 2
(c) 4
(d) No direct retainers are required

2 EACH
SIDE

4. What type of major connector should be selected? Explain why.

A LINGUAL PLATE THIS WILL PROVIDE GOOD RIGIDITY
A HAVE ENOUGH ROOM FOR THE LINGUAL FRENUM. IT
WILL ALSO ALLOW FOR PLACEMENT OF ANT. PONTICS
IF MORE TEETH ARE LOST (e.g. 27, 28 FALL AND NEED TO BE REPLACED)

5. A remount procedure is defined as: USING A CENTRAL RELATION RECORD AND FACE BOW MEASUREMENTS TO ACCURATELY MOUNT MAX. MAND. CASTS IN CENTRAL RELATION, THIS WILL PROVIDE PROPER RELATIONS WHEN SETTING TEETH IN C.D.
6. What is the rationale for making a functional impression? (Be specific)
A FUNCTIONAL IMPRESSION IS A SECONDARY IMPRESSION USED TO OBTAIN ACCURATE IMPRESSIONS OF BOTH HARD & SOFT TISSUE IN FUNCTIONAL POSITIONS. IT ALLOWS THE DENTURE TO BE MADE SO MAX DISTRIBUTION OF FORCE IS OBTAINED AND THERE IS NOT
7. What measurements should be made when sectioning the cast for a functional impression?
MEASURE DISTAL ABUTMENT 7mm
5mm FROM MOST LINGUAL PART OF RESIDUAL RIDGE
SOFT TISSUE IMPINGEMENT IN FXN, PREVENT BONE LOSS,
8. What is the difference between arbitrary blockout and relief of the master cast?
Arbitrary blockout ARBITRARY BLOCKOUT IS USED TO BLOCK OUT UNDER CUTS OF SOFT TISSUE ON CAST
Relief of the master cast THIS IS USED TO PREVENT THE METAL FROM IMPINGING ON SOFT TISSUE AND PRESSURE ESP. IN ANTERIOR AREA & TORI.
9. A clasp assembly is defined as: ON BRACING ARM, RETENTIVE ARE OCCLUSAL REST, 180° CIRCUMFERENCE
10. List three advantages for using acrylic resin denture teeth.
 - a. EASY TO ADJUST
 - b. MATERIAL ACTUALLY POLYMERIZES TO RESIN USED TO SET TEETH
 - c. GOOD SHADE ~~AB~~ ABILITY

First Initial of last Name TC**20 MINUTES**

Student Name _____

Row/Seat Number _____

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Grading:

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90-100 = A

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78-70 = C

68 and below = F

Which of the following factors determines the amount of retention that a clasp is capable of generating?

- (a) Degree of the angle of cervical convergence ✓
 (b) How far into the angle of cervical convergence the clasp terminal is placed ✓
 (c) Flexibility of the clasp arm ✓
☒ (d) All of the above are correct

2. Mr. Jones has lost his lower denture. During his visit with Dr. Toothacker, the next day, he was told that all of his remaining teeth were caries-free and periodontally sound. However, he was missing tooth numbers 28-30 and needed a new RPD. Based on this clinical situation, what is the Kennedy classification?

- | | | |
|--|---|-----------|
| (a) Class I | 2 | 28 - 30 |
| (b) Class II | 3 | Class III |
| <input checked="" type="radio"/> (c) Class III | 4 | |
| (d) Class IV | 4 | |

3. Based on question #2, how many direct retainers would be required for the metal framework?

- (a) 1
 (b) 2
☒ (c) 4
 (d) No direct retainers are required

4. Support from the residual ridge is dependent upon several factors (List at least two):

Support comes from the type of tissue, ideally it would be firm and nondisplaceable and quality of the bone. Cortical bone enclosing cancellous is preferred.

5. According to McCracken, the objective for making a functional impression is to: To evenly distribute the forces on the RPD between the remaining natural dentition and tissue. Also to distribute force over a maximum area.

6. Occlusal analysis is defined as: Determining the patient's existing occlusion and stabilizing prior to fitting and adjusting the RPD.

7. When making a functional impression, the framework should be seated in the mouth and held in place in the following manner:
- (a) Press on the edentulous area to stabilize the tray
 - (b) No specific position is required when seating the impression
 - ☒ (c) Press on the metal rests of the framework
 - (d) Allow the patient to hold the impression

Dr. Toothacher has just completed a functional impression for his patient Mrs. Jones. He promised his patient that she would have her Class I lower partial in 24 hours. Unfortunately, his laboratory is no longer in business. Dr. Toothacher has therefore decided to do the work himself. Based on this scenario, answer questions 8-10:

8. List two laboratory techniques that Dr. Toothacher can use to pour-up the functional impression.
- (a) Beading and Boxing plaster and pumice
 - (b) North Carolina technique
9. To section the edentulous area(s), what measurements should Dr. Toothacher use?
- ☒ (a) 1 mm from the lingual slope of the residual ridge and 5 mm from the distal abutment
 - (b) 2 mm from the lingual slope of the residual ridge and 10 mm from the distal abutment
 - (c) Sectioning of the cast is not required for a Kennedy Class I or Class III clinical situation
 - ☒ (d) None of the above
10. After the impression has been poured, Dr. Toothacher notices a small amount of stone on the occlusal surfaces of the teeth. Select the most appropriate response(s) that could have caused this problem.
- (a) The framework was not correctly luted to the master cast
 - (b) Excess impression material was removed from the non-edentulous areas
 - (c) The cast was not properly sealed with wax and verified with slurry water
 - ☒ (d) a and c
 - (e) None of the above

EXTRA CREDIT: 10 points will be given if question is answered correctly. No partial credit given. The 10 points can ONLY increase NOT decrease your grade for this quiz only. Do not use more than 3 sentences.

What is the clinical significance for border molding of a distal extension RPD?

Border molding is used to capture the tissue and muscle movements supporting the distal extension of the RPD. This provides the functional form of the Residual Ridge.

Student Name _____

Row/Seat Num. _____

Instructions: Please print all written answers. No partial credit given. If the row instructor cannot read your answer, they cannot be graded. There is only one word for each blank space.

Grading:


All questions are worth 10 points

90-100 = A

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78-70 = C

68 and below = F

1. Which of the following factors determines the amount of retention that a clasp is capable of generating?
 - (a) Degree of the angle of cervical convergence
 - (b) How far into the angle of cervical convergence the clasp terminal is placed
 - (c) Flexibility of the clasp arm
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2. Mr. Jones has lost his lower denture. During his visit with Dr. Toothacker, the next day, he was told that all of his remaining teeth were caries-free and periodontally sound. However, he was missing tooth numbers 28-30 and needed a new RPD. Based on this clinical situation, what is the Kennedy classification?
 - (a) Class I
 - (b) Class II
 - (c) Class III
 - (d) Class IV
3. Based on question #2, how many direct retainers would be required for the metal framework?
 - (a) 1
 - (b) 2
 - (c) 4
 - (d) No direct retainers are required
4. Support from the residual ridge is dependent upon several factors (List at least two):

Amount of Non-displaceable tissue and displaceable tissue

Support also is dependent upon how broad & flat the residual ridge is.
5. According to McCracken, the objective for making a functional impression is to:

Capture the soft tissue & landmarks during function.
6. Occlusal analysis is defined as:

- Analysing the Occlusion before any work is done. Checking to make sure you can get an ideal occlusion before fixing a problem. Don't want to add to problems that already exist.

7. When making a functional impression, the framework should be seated in the mouth and held in place in the following manner:

- (a) Press on the edentulous area to stabilize the tray ✗
- (b) No specific position is required when seating the impression
- (c) Press on the metal rests of the framework
- (d) Allow the patient to hold the impression

Dr. Toothacher has just completed a functional impression for his patient Mrs. Jones. He promised his patient that she would have her Class I lower partial in 24 hours. Unfortunately, his laboratory is no longer in business. Dr. Toothacher has therefore decided to do the work himself. Based on this scenario, answer questions 8-10:

8. List two laboratory techniques that Dr. Toothacher can use to pour-up the functional impression.

- (a) Beading & Boxing w/ Wax
- (b) North Carolina Technique

9. To section the edentulous area(s), what measurements should Dr. Toothacher use?

- (a) 1 mm from the lingual slope of the residual ridge and 5 mm from the distal abutment
- (b) 2 mm from the lingual slope of the residual ridge and 10 mm from the distal abutment
- (c) Sectioning of the cast is not required for a Kennedy Class I or Class III clinical situation
- (d) None of the above

10. After the impression has been poured, Dr. Toothacher notices a small amount of stone on the occlusal surfaces of the teeth. Select the most appropriate response(s) that could have caused this problem.

- (a) ✗ The framework was not correctly luted to the master cast T
- (b) N Excess impression material was removed from the non-edentulous areas ✗
- (c) ✗ The cast was not properly sealed with wax and verified with slurry water
- (d) a and c
- (e) None of the above

EXTRA CREDIT: 10 points will be given if question is answered correctly. No partial credit given. The 10 points can ONLY increase NOT decrease your grade for this quiz only. Do not use more than 3 sentences.

What is the clinical significance for border molding of a distal extension RPD?

To provide a butt joint for the resin to the metal frame work, so there is sufficient room for the end of the resin so it does not break off.

RPD Quiz #3

First initial of last name:

30 MINUTES

Student Name

Row/Seat Number

96

Instructions: Please print all written answers. No partial credit given. If the instructor cannot read your answer, the answer cannot be graded.

Grading:

All questions are worth 10 points, unless indicated differently

90-100 = A

80-88 = B

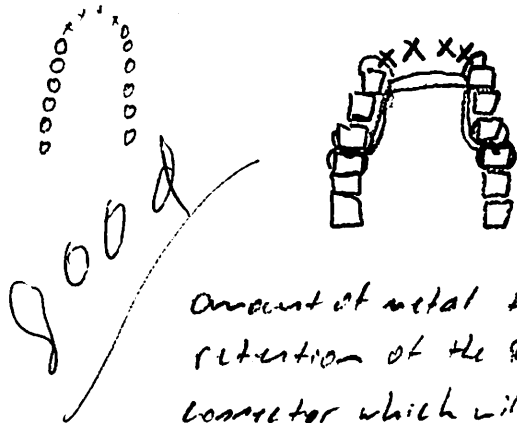
78-70 = C

68 and below = F

1. Provide definitions and rationales for the following terms: (Be descriptive in your wording) (60 points)
 - a. Occlusal analysis-- *Evaluating occlusion prior to performing any work allows practitioner to determine a more accurate treatment plan for the patient*
 - b. Clinical remount-- *A secondary occlusal record is taken after the prosthesis has been returned from the lab is placed on the articulator along with the prosthesis to determine amount of tooth movement during RPD processing time*
 - c. Altered cast impression-- *Secondary impression taken to accurately record residual ridges to ensure a correct fit of the distal extension of an RPD*
✓ Which arch?
 - d. Centric jaw relation vs. Centric occlusion--
Centric relation is the relation of the mandible to the maxilla when the mandible is in its most posterior and superior position within the glenoid fossa
Centric occlusion is the relation of the maxillary and mandibular dentition when the jaw is in centric relation.
 - e. Border molding-- *Process by which the functional impression borders are formed by manual movement of soft tissues to determine the length and width of the prosthesis*
 - f. Land area-- *A non anatomical area used to determine the buccal extent of a prosthesis*

2. Mr. Jones has been wearing a mandibular RPD for over six years and is now ready for a new denture. The old denture was fine except he did not like the metal showing on his lower teeth. Dr. Toothacker, his family dentist, has classified the mandibular arch as a Kennedy Class IV (missing tooth #s 23-26) with .01 inch undercuts on the mesio-buccal and distal-buccal of all remaining teeth.

- a. Starting with the surveying process, provide the design, technique and rationale that Dr. Toothacker can use to improve the esthetics for the new partial denture. (30 points)



Given that .01 inch undercuts are present on the MB of 22 and 27, I-bars can be placed to increase the esthetics of the RPD and make Mr. Jones happier. I-bars are an infra buccal clasp which approach the undercut from a gingival direction. This decreases the amount of metal that appears in the esthetic zone while providing sufficient retention of the RPD. In this case I would use a lingual plate as a major connector which will provide good rigidity and allow for the addition of additional denture teeth should Mr. Jones lose more teeth. Akers clasps are placed in embrasure rests on teeth #s 19, 20 and 29, 30 with retentive arms on the buccal and bracing arms on the lingual. This assembly allows for good retention, symmetry and should be comfortable and esthetically pleasing for Mr. Jones.

MB or DB whatever

- b. Explain your specific clasp assembly design and rationale for the Kennedy Class IV design used for the abovementioned framework. (10 points)

I bar would be - 2
Because we have found .01 inch undercuts, we can use Akers clasps to provide direct retentive properties on the distal extent of the RPD and I-bars to provide additional retention on the anterior extent of the RPD. The retentive arms of the Akers clasps should approach the undercut from a coronal direction while the I-bars approach from the gingival direction.

- c. Explain the difference between the Krol vs. Kratochvil design. (10 points)
EXTRA CREDIT

Name [redacted]
 RDIV—Complete Denture Section
 Quiz #3

Lab Seat [redacted]

30 minutes

Please answer the following questions to the best of your ability. All essay questions must be **LEGIBLE**. If they cannot be read, they will not be graded. Please print.

1. Retention, stability, and support are critical factors that must be assessed and incorporated during denture fabrication. Of these three factors **circle the factor(s)** that are provided or enhanced by the anatomical structure.
 (Total 30 points....5 points for each response)

<u>Anatomical Structure</u>	<u>Critical Factors</u>		
<i>Example:</i> Buccal shelf	Retention	Stability	Support
Answer: Support, because the buccal shelf provides the primary support area in the mandibular arch			

Anatomical Structure

Critical Factors

Canine eminence

Retention

Stability

Support

Hard palate

Retention

Stability

Support

Hamular notch

Retention

Stability

Support

Retromolar pad

Retention

Stability

Support

Retromylohyoid space

Retention

Stability

Support

Rugae

Retention

Stability

Support

2. In denture fabrication, anatomically compare the differences and similarities between the zygomatico-alveolar crest and the buccal shelf. (10 points)

The buccal shelf is parallel with the occlusal plane on the mandibular arch. It provides support to this arch. The zygomatico-alveolar crest provides some support for the maxillary arch, but it is primarily responsible for providing stability.

3. In complete denture fabrication, why is "balance" necessary? (5 points)

A denture that is not in balance can cause rocking and tipping. Also the stability will be compromised. If the denture is not balanced, it will cause discomfort and is stimulating occlusal support of teeth. It also causes lateral movements.

4. What is the significance of the posterior palatal seal? (5 points)

5. It helps maintain a peripheral seal and retention by compensating for polymerization shrinkage and minor denture functional movements.

5. Mrs. Smith just had a new set of dentures made by Dr. Toothacher. When she returned for her first post-operative visit, he noticed a sore spot in the distobuccal flange area of the mandibular denture. What would you suspect to be the cause of this problem? **BE SPECIFIC** (10 pts.)

5. The buccal flange in that area may be over-extended, causing soreness. Also, the vertical dimension of occlusion is excessive.

6. Why is a "retruded tongue position" considered very unfavorable in complete denture fabrication? (5 points)

5. Because at rest the tongue is usually resting against the palate, it is not retruded. The retruded tongue position changes the position of the mandible by retruding it.

7. When setting anatomic teeth in balanced occlusion, if the incisal guidance is increased what should you do to maintain balance? **At least FOUR solutions must be provided to obtain full credit.** (10 points)

10. Condylar guidance is a factor that cannot be changed but, the occlusal plane, compensating curve and cusp inclination need to be increased in order to maintain balance.

8. Compare and contrast thermoplastic and thermoset polymers. Give an example of each. (10 points)

9. Of the five factors in the Hanau's Quint, which factor(s) are under the greatest control of the dentist? (5 points) **No partial credit**

5. Compensating curve
cusp inclination
incisal guidance

10. Describe at least **FIVE** problems created when the vertical dimension of occlusion is closed excessively in relation to the vertical dimension of rest. (10 points)

10. angular cheilitis
facial distortion
damage to TMJ
muscles lose tonicity
disrupt tongue space

Name _____

RDIV—Complete Denture Section

Quiz #3

Lab Seat _____

30 minutes

Please answer the following questions to the best of your ability. All essay questions must be **LEGIBLE**. If they cannot be read, they will not be graded. Please print.

30

1. What is the purpose of a clinical remount and secondary centric jaw relation record in complete denture fabrication? Hint: This does not refer to laboratory remount. (20 points)

+20
Clinical remount - To correct errors in centric jaw relation record or errors when you take the denture off the master cast. A secondary centric jaw relation record is needed this is used to mount the mandibular cast and to make sure its accurate.
"Measure twice cut once"

2. Mrs. Smith, a seamstress for over 30 years, has just received her first set of complete dentures. She loves the way they look and feel in her mouth. However, she has noticed that her ability to pronounce words has changed and when she sews, she can no longer tear the thread with her front teeth like she used to for so many years. What was the probable cause of this situation and how can it be corrected? (Be specific and use the correct terminology) (20 points)

+10
C = $\frac{\text{Condylar guidance} \times \text{incisal guidance}}{\text{Comp. Curve, cuspal inclination, occlusal plane \uparrow \text{clon}}}$ N.E.
The probable cause of this is probably minor errors from processing and it can be corrected by increasing compensating curve or cuspal inclination. The incisal guidance was probably minimized but if not minimize the incisal guidance.

3. Explain House's classification for complete dentures. (15 points)

+5
① you have those that are realistic
② those that place high demands on the dentist
③ And those that don't even listen

4.

~~Explain the difference between thermoplastic and thermoset polymers.~~
(15 points)

Thermoplastic polymers - the difference from thermoset is thermoplastic polymers is that they
thermoset polymers. The difference from thermoplastic is thermoset polymers are stiffer and harder

5.

What are the three stages of polymerization? (5 points)

Dough stage,
Brittle stage;
Set stage

~~Initial stage, Intermediate stage, Final stage.~~

6.

When finishing and polishing a maxillary complete denture, the thickness of the palatal portion should be 3mm (5 points)

7.

Describe the procedure for the repair of a maxillary complete denture. (Be specific and use the correct terminology) (20 points)

Rabbing each side of the fracture 3-4mm wide
and Beveling 2mm on the tissue side. This increases the surface area
and allows the old and new acrylic to adhere to one another
So you have 6-8mm of Rabbing.

EXTRA CREDIT: To be used to increase the lowest Complete Denture Quiz score.
(20 points)

Describe the space of Donder's and its relationship with complete denture fabrication?

What formula is used to obtain balanced occlusion for complete dentures? Why is balanced occlusion clinically significant?

$$C = \frac{\text{condylar guidance} \times \text{incisal guidance}}{\text{compensating curve} \times \text{cuspal inclination} \times \text{occlusal plane}}$$