

## OCCUPATIONAL ANALYSIS OF THE REGISTERED DENTAL ASSISTANT PROFESSION



### TABLE 14 - REGISTERED DENTAL ASSISTANT WRITTEN EXAMINATION OUTLINE

Content Area 1. ASSESSMENT AND DIAGNOSTIC RECORDS (15%). This area assesses the candidate's knowledge of reviewing information about a patient's history and oral conditions as they relate to dental treatment. This area also assesses the candidate's knowledge of assisting with diagnostic records and chart information related to dental treatment. These activities are performed under the supervision of a dentist.

Section		Tasks	Associated Knowledge Statements
1A. Patient Information and Assessment (8%)	TI.	Review patient medical and dental history to identify conditions that may affect dental treatment.	<ul> <li>K1. Knowledge of common medical conditions and medications that may affect treatment Knowledge of dental conditions that affect treatment.</li> <li>K2. Knowledge of types of oral health conditions that may affect treatment.</li> <li>K3. Knowledge of types of medical conditions that may require premedication for dental treatment.</li> <li>K4. Knowledge of the relationship between allergic reactions or sensitivities and dental materials.</li> <li>K5. Knowledge of methods for gathering information regarding patient medical and dental history.</li> </ul>
	T2.	Obtain patient's blood pressure and vital signs to determine current status.	<ul> <li>K6. Knowledge of standards regarding blood pressure ranges based on patient age.</li> <li>K7. Knowledge of signs of elevated or dangerous blood pressure readings.</li> <li>K8. Knowledge of vital signs that should be obtained before treatment.</li> <li>K9. Knowledge of techniques for taking patient blood pressure and vitals.</li> </ul>
	ТЗ.	Perform mouth mirror inspection of oral cavity to identify obvious lesions, existing restorations, and missing teeth.	<ul> <li>K10. Knowledge of types of basic oral structures and dental anatomy.</li> <li>K11. Knowledge of types of occlusions and malocclusions.</li> <li>K12. Knowledge of signs of plaque, calculus, and stain formations in the oral cavity.</li> <li>K13. Knowledge of the effects of dietary habits on oral health.</li> <li>K14. Knowledge of effects of substance use on oral health.</li> <li>K15. Knowledge of the effects of smoking or tobacco use on oral health.</li> <li>K16. Knowledge of methods for performing mouth mirror inspections.</li> </ul>

Content Area 1. ASSESSMENT AND DIAGNOSTIC RECORDS (15%), continued. This area assesses the candidate's knowledge of reviewing information about a patient's history and oral conditions as they relate to dental treatment. This area also assesses the candidate's knowledge of assisting with diagnostic records and chart information related to dental treatment. These activities are performed under the supervision of a dentist.

	Section		Tasks	Associated Knowledge Statements
1B.	Diagnostic Tests and Records (7%)	T4.	Use caries detection materials and devices to gather information for dentist.	<ul><li>K17. Knowledge of types of devices and materials for detecting caries.</li><li>K18. Knowledge of procedures for using caries detection devices and materials.</li></ul>
		T5.	Obtain intraoral images of patient's mouth and dentition to be assist with milling of computer- aided design (CAD) restorations.	<ul> <li>K19. Knowledge of techniques for taking intraoral diagnostic imaging.</li> <li>K20. Knowledge of techniques for patient management during imaging.</li> <li>K21. Knowledge of factors that impact digital imaging and quality.</li> </ul>
		T6.	Prepare patient for radiographs or cone-beam computed tomography (CBCT) to assist the dentist in determining oral conditions.	<ul> <li>K22. Knowledge of types of radiographic imaging (i.e., panoramic, bitewing, FMX).</li> <li>K23. Knowledge of procedures for taking digital or conventional radiographs.</li> <li>K24. Knowledge of methods for patient management during radiograph procedures.</li> <li>K25. Knowledge of factors that impact radiographic imaging and quality.</li> </ul>
		T7.	Chart evaluation information to document oral conditions related to treatment.	<ul> <li>K26. Knowledge of types of dental terminology and morphology.</li> <li>K27. Knowledge of universal numbering and Palmer quadrant notation systems.</li> <li>K28. Knowledge of methods for charting oral conditions.</li> </ul>

	Section		Tasks	Knowledge Statements
2A.	Treatment Preparation (15%)	T8.	Identify types and stages of treatment to prepare for dental procedures.	<ul> <li>K29. Knowledge of types and stages of dental treatment.</li> <li>K30. Knowledge of methods for preparing tray and equipment set-up for dental procedures.</li> <li>K31. Knowledge of types of materials used in dental procedures.</li> </ul>
		T9.	Prepare instruments to facilitate use in dental treatment.	<ul><li>K32. Knowledge of types of dental instruments and their associated uses.</li><li>K33. Knowledge of methods for preparing, handling, and storing dental instruments.</li></ul>
		T10.	Select components and materials to be used in dental treatment.	<ul> <li>K34. Knowledge of types of dental components and their functions.</li> <li>K35. Knowledge of types of materials used in dental treatment and their functions.</li> <li>K36. Knowledge of methods for selecting dental components and materials.</li> </ul>
		 T11.	Isolate oral cavity to preserve integrity of restorative area.	<ul> <li>K30. Knowledge of types of materials used to isolate restorative area.</li> <li>K38. Knowledge of types of techniques for isolating restorative area.</li> <li>K39. Knowledge of methods for isolating tooth or cavity preparations.</li> </ul>
		T12.	Place bases and liners to reduce irritation and microleakage.	K40. Knowledge of types of base and liner materials and their uses. K41. Knowledge of procedures for applying or placing bases and liners.
		T13.	Place matrices and wedges to create a seal and form contacts during restorative procedures.	<ul> <li>K42. Knowledge of types of wedges and their uses.</li> <li>K43. Knowledge of techniques for placing wedges during restorative procedures.</li> <li>K44. Knowledge of types of matrix bands and their uses.</li> <li>K45. Knowledge of techniques for placing matrix bands during restorative procedures.</li> </ul>

	Section	Tasks	Knowledge Statements
2B.	Direct and Indirect Restorations (10%)	T14. Place temporary filling material to protect tooth during transitional treatment.	<ul> <li>K46. Knowledge of types of temporary filling materials and their uses.</li> <li>K47. Knowledge of techniques to mix, place, and contour temporary filing material.</li> </ul>
		T15. Apply etchant to prepare tooth surface for direct and indirect restorations.	<ul> <li>K48. Knowledge of types of etchants and their uses.</li> <li>K49. Knowledge of indications and contraindications for the use of etching agents.</li> <li>K50. Knowledge of techniques for applying etchants.</li> </ul>
		T16. Place bonding agent to prepare tooth surface for restoration.	<ul> <li>K51. Knowledge of types of bonding agents and their use.</li> <li>K52. Knowledge of indications and contraindications for the use of bonding agents.</li> <li>K53. Knowledge of techniques for applying bonding agents.</li> </ul>
		T17. Fabricate indirect provisional restorations to protect tooth during restoration processes	<ul><li>K54. Knowledge of types of materials used for indirect provisional restorations.</li><li>K55. Knowledge of techniques for fabricating indirect provisional restorations.</li></ul>
		T18. Adjust indirect provisional restorations to ensure proper fit.	<ul> <li>K56. Knowledge of methods for evaluating occlusion, margins, and contact discrepancies of indirect provisional restorations.</li> <li>K57. Knowledge of techniques for adjusting indirect provisional restorations.</li> </ul>
		T19. Cement indirect provisional restorations to provide coverage of tooth preparation.	<ul> <li>K58. Knowledge of types of cements and their use.</li> <li>K59. Knowledge of techniques for placing and removing indirect provisional restorations.</li> <li>K60. Knowledge of techniques for mixing provisional materials.</li> </ul>
		T20. Place and adjust direct provisional restorations to ensure proper fit.	<ul> <li>K61. Knowledge of methods for evaluating occlusion, margins, and contact discrepancies of direct provisional restorations.</li> <li>K62. Knowledge of techniques for adjusting direct provisional restorations</li> </ul>
		T21. Finish direct provisional restorations to provide a smooth surface or prevent irritation.	<ul> <li>K63. Knowledge of techniques for finishing direct provisional restorations.</li> <li>K64. Knowledge of the effects of improper or incomplete finishing of direct restorations.</li> </ul>

T22. Remove excess cement from surfaces of teeth to prevent irritation.	<ul> <li>K65. Knowledge of instruments used to remove cement from teeth surfaces.</li> <li>K66. Knowledge of signs of irritation associated with residual cement.</li> </ul>
T23. Assist in the administration of nitrous oxide and oxygen to provide analgesia or sedation when ordered by a dentist.	<ul><li>K67. Knowledge of procedures for the use and care of equipment used to administer oxygen and nitrous oxide and oxygen.</li><li>K68. Knowledge of signs of medical emergencies associated with the use of nitrous oxide.</li></ul>

	Section		Tasks	Knowledge Statements		
2C.	Preventative and Aesthetic Procedures (10%)	T24.	Perform coronal polishing to remove plaque and extrinsic stains from surfaces of teeth.	<ul> <li>K69. Knowledge of techniques for performing coronal polishing.</li> <li>K70. Knowledge of indications and contraindications for performing coronal polishing.</li> </ul>		
		T25.	Apply pit and fissure sealants to prevent dental caries.	<ul> <li>K71. Knowledge of types of pit and fissure sealants and their uses.</li> <li>K72. Knowledge of factors that impact retention of pit and fissure sealants.</li> <li>K73. Knowledge of indications and contraindications for using pit and fissure sealants.</li> <li>K74. Knowledge of techniques for applying pit and fissure sealants.</li> </ul>		
		T26.	Perform in-office bleaching to whiten teeth.	<ul><li>K75. Knowledge of types of bleaching agents and their use.</li><li>K76. Knowledge of indications and contraindications for using bleaching agents.</li><li>K77. Knowledge of techniques for applying bleaching agents.</li></ul>		

Section	Tasks	Knowledge Statements
2D. Patient Education (10%)	T27. Educate patients about oral hygiene to promote dental health.	K78. Knowledge of the effects of poor oral hygiene and care related to dental health. K79. Knowledge of methods for educating patients about oral hygiene.
	T28. Provide patients with pre- and post- treatment instructions to promote patient compliance.	<ul> <li>K80. Knowledge of symptoms patients may encounter after treatment.</li> <li>K81. Knowledge of techniques for pain management after treatment.</li> <li>K82. Knowledge of methods for educating patients about pre- and post-treatment instructions.</li> </ul>
	T29. Educate patients about dietary recommendations to promote oral health.	K83. Knowledge of the effects of foods and beverages on oral health. K84. Knowledge of methods for educating patients about dietary recommendations related to oral health and dental treatment.

	Section		Tasks	Knowledge Statements
2E.	Specialty Procedures	T30.	Test pulp vitality to identify baseline pulp health or level of pain.	K85. Knowledge of the relationship between pain responses and pulp vitality.
	(5%)			K86. Knowledge of methods for testing pulp vitality.
		T31.	Dry canals with absorbent points to assist with endodontic treatment.	K87. Knowledge of techniques for using absorbent points to dry canals.
		T32.	Place periodontal dressings to protect extraction and periodontal surgical sites.	<ul> <li>K88. Knowledge of types of periodontal dressings and their use.</li> <li>K89. Knowledge of the relationship between dressing medicaments and post-surgical healing.</li> <li>K90. Knowledge of signs of dry socket that require the attention of a</li> </ul>
				<ul> <li>K90. Knowledge of signs of any socker indirequire the difference of a dentist.</li> <li>K91. Knowledge of signs of infection or irritation associated with periodontal and surgical dressings.</li> <li>K92. Knowledge of techniques for applying dressings to surgical sites.</li> </ul>
		T33.	Place archwires to move teeth to dentist's prescribed position.	<ul> <li>K92. Knowledge of the types of archwires and their functions.</li> <li>K94. Knowledge of methods for placing archwires.</li> <li>K95. Knowledge of types of instruments used to place orthodontic archwires.</li> </ul>
		T34.	Place ligatures to connect archwires to orthodontic brackets.	<ul> <li>K96. Knowledge of types of ligatures and their functions.</li> <li>K97. Knowledge of techniques for placing ligatures based on dentist's instructions.</li> <li>K98. Knowledge of types of instruments used to place orthodontic ligatures.</li> </ul>
		T35.	Remove post-extraction and post-surgical sutures as directed by dentist.	K99. Knowledge of techniques for removing post-surgical sutures.
		T36.	Adjust removable prosthetic appliances extraorally to verify fit or retention.	<ul><li>K100. Knowledge of types of removable prosthetic appliances and their functions.</li><li>K101. Knowledge of methods for verifying removable prosthetic</li></ul>
				appliance fit or retention. K102. Knowledge of techniques for adjusting prosthetic appliances extraorally.

Content Area 3. INFECTION CONTROL AND HEALTH AND SAFETY (25%). This area assesses the candidate's knowledge of maintaining a safe and sanitary work environment and to adhere to infection control protocols and standard precautions.

	Section		Tasks		Associated Knowledge Statements
3A.	Patient Safety and Prevention of Disease Transmission (15%)	T37.	Provide patient with safety precautions to ensure protection during dental treatment.	K104.	Knowledge of methods for using safety precautions with patients. Knowledge of types of safety equipment for protecting patients. Knowledge of techniques for protecting patients during diagnostic tests and imaging.
		T38.	Use pre-procedural barriers, air evacuation systems, and rinse techniques to prevent the spread of disease through aerosol, droplets, and splatter.	K106. K107. K108.	evacuation systems.
		T39.	Sanitize hands according to protocols to prevent the transmission of diseases.		Knowledge of techniques for sanitizing hands during dental treatments. Knowledge of types of infectious diseases and their modes of transmission.
		T40.	Wear personal protective equipment to prevent contamination.		Knowledge of techniques for using personal protective equipment. Knowledge of types of infectious diseases and their modes of transmission.
		T41.	Adhere to infectious disease prevention protocols to reduce risk of disease transmission.	K112.	Knowledge of techniques for preventing the spread of infectious diseases. Knowledge of types of disinfecting and sterilizing agents used to prevent the spread of infectious diseases. Knowledge of types of infectious diseases and their modes of transmission.
		T42.	Identify signs of medical emergencies to address situations that require immediate intervention.	K114. K115. K116.	Knowledge of signs of allergic reaction or anaphylactic shock. Knowledge of signs of medical crisis or emergency. Knowledge of methods for obtaining emergency medical issistance. Knowledge of methods for administering emergency first aid and CPR.

Content Area 3. INFECTION CONTROL AND HEALTH AND SAFETY (25%), continued. This area assesses the candidate's knowledge of maintaining a safe and sanitary work environment and to adhere to infection control protocols and standard precautions.

	Section		Tasks	Associated Knowledge Statements
ЗВ.	Equipment Disinfection and Cross- Contamination Prevention (10%)	T43.	Disinfect treatment area and equipment to prepare for or complete dental treatment.	<ul> <li>K117. Knowledge of methods for disinfecting treatment areas and equipment.</li> <li>K118. Knowledge of barrier techniques for protecting treatment areas and equipment.</li> <li>K119. Knowledge of methods for monitoring dental waterlines and wate quality.</li> <li>K120. Knowledge of methods for disinfecting evacuation lines.</li> <li>K121. Knowledge of types of disinfecting and sterilizing agents used to prevent the spread of infectious diseases.</li> </ul>
		T44.	Sterilize instruments to prevent patient-to- patient disease transmission.	<ul> <li>K122. Knowledge of types of sterilization processes and related equipment.</li> <li>K123. Knowledge of procedures for sterilizing instruments.</li> <li>K124. Knowledge of techniques for storing instruments before and after sterilization.</li> </ul>
		T45.	Adhere to disposal safety protocols to discard of contaminated materials or sharps.	<ul><li>K125. Knowledge of techniques for the safe disposal of contaminated materials.</li><li>K126. Knowledge of techniques for the safe disposal of sharps.</li></ul>

Content Area 4. LAWS AND REGULATIONS (10%). This area assesses the candidate's knowledge of laws and regulations regarding licensing requirements, scope of practice, professional conduct, and professional responsibilities.

	Tasks	Associated Knowledge Statements			
ŢΖ	6. Comply with laws regarding consent to respect patients' right to make informed treatment decisions.	K127. Knowledge of laws regarding patient consent.			
T4	<ol> <li>Comply with Health Insurance Portability and Accountability Act (HIPAA) laws to respect patient right to privacy in dental health care delivery.</li> </ol>	K128.Knowledge of laws related to the Health Insurance Portability and Accountability Act (HIPAA).			
T4	8. Report instances of suspected abuse, neglect, and exploitation to protect vulnerable populations.	K129.Knowledge of signs of child abuse or neglect. K130.Knowledge of signs of dependent adult abuse, neglect, or exploitation. K131.Knowledge of signs of elder adult abuse, neglect, or exploitation. K132.Knowledge of methods for reporting child, elder, or dependent adult abuse.			
T4	<ol> <li>Comply with laws about record-keeping to document, store, and dispose of patient charts or records.</li> </ol>	<ul><li>K133.Knowledge of legal standards for patient record-keeping and documentation.</li><li>K134.Knowledge of laws regarding the storage and disposal of patient charts or records.</li></ul>			
Τ5	0. Comply with laws about professional conduct to maintain professional integrity.	K135.Knowledge of laws regarding professional conduct.			
Τ5	1. Comply with laws about scope of practice to maintain professional boundaries.	K136.Knowledge of laws regarding scope of practice.			



# OCCUPATIONAL ANALYSIS OF THE REGISTERED DENTAL ASSISTANT IN EXTENDED FUNCTIONS PROFESSION



### TABLE 16 – REGISTERED DENTAL ASSISTANT IN EXTENDED FUNCTIONS WRITTEN EXAMINATION OUTLINE

1. PRELIMINARY PATIENT EVALUATIONS (25%) – This area assesses the candidate's knowledge of evaluating the patients' medical and dental history and identifying conditions that may impact treatment. This area also assesses the candidate's knowledge of preparing diagnostic records and charting conditions or oral abnormalities related to treatment. These functions are performed under the supervision of a licensed dentist.

	Section		Task Statements		Knowledge Statements
1A.	Patient Information and Evaluations (18%)	T1.	Review patient medical and dental history to identify conditions that may affect treatment.	K1. K2. K3.	Knowledge of types of common medical conditions or medications that affect treatment. Knowledge of dental conditions that affect treatment. Knowledge of methods for collecting information about patient medical and dental history.
		T2.	Evaluate patient's oral health under dentist's direction to assist with overall patient assessment.	K4. K5. K6. K7. K8. K9.	Knowledge of methods for evaluating conditions of the oral cavity. Knowledge of signs of decay or stain formations that cause oral health problems. Knowledge of signs of periodontal disease. Knowledge of effects of dietary habits on oral health. Knowledge of effects of substance use on oral health. Knowledge of effects of smoking or tobacco use on oral health.
		Т3.	Conduct a preliminary myofunctional evaluation of the head and neck to identify function of oral and facial muscles.	K11. K12.	Knowledge of types of muscles and physiological structures in the head and neck. Knowledge of techniques for performing evaluations of myofunction of the head and neck. Knowledge of signs of abnormal or limited myofunction of the head and neck. Knowledge of signs of temporal mandibular dysfunction.
		T4.	Perform intraoral and extra-oral evaluation of soft tissue to identify conditions related to patient's oral health.	K15. K16. K17.	Knowledge of types of anatomical structures and landmarks of the oral cavity. Knowledge of signs of healthy hard and soft tissue. Knowledge of signs of intraoral and extra-oral pathology. Knowledge of methods for performing intraoral and extra-oral evaluations. Knowledge of the relationship between facial or oral abnormalities and dental problems.
		T5.	Determine classification of occlusions and malocclusions to identify the relationships of the maxillary and mandibular teeth.		Knowledge of classifications of occlusion and malocclusion. Knowledge of effects of occlusion and malocclusion on oral health.

 PRELIMINARY PATIENT EVALUATIONS (25%), continued – This area assesses the candidate's knowledge of evaluating the patient's medical and dental history and identifying conditions that may impact treatment. This area also assesses the candidate's knowledge of preparing diagnostic records and charting conditions or oral abnormalities related to treatment. These functions are performed under the supervision of a licensed dentist.

	Section		Task Statements	Knowledge Statements		
1B.	<ul> <li>B. Imaging and T6. Determine type of imaging needed to assist in Documentation gathering diagnostic information. (7%)</li> </ul>			<ul><li>K21. Knowledge of types of radiographic imaging.</li><li>K22. Knowledge of criteria for determining type of digital or X-ray images to be performed.</li></ul>		
		T7.	Chart oral conditions to document patient characteristics for treatment.	<ul> <li>K23. Knowledge of types of dental nomenclature and morphology.</li> <li>K24. Knowledge of universal numbering and Palmer quadrant notation systems.</li> <li>K25. Knowledge of methods for charting oral conditions and problems.</li> </ul>		

TREATMENT PROCEDURES (57%) – This area assesses the candidate's knowledge of preparing for and providing treatment services. These services include preparing for and taking final impressions and activities related to placing and finishing direct and indirect restorations that restore tooth form and function. These functions are performed under the supervision of a licensed dentist.

	Section	Section Task Statements			Knowledge Statements
2A.	Tissue Retraction and Final Impression	Т8.	Evaluate patient periodontal or medical conditions to identify contraindications for chemical retraction.		Knowledge of types of periodontal conditions contraindicated for chemical retraction. Knowledge of types of medical conditions contraindicated for chemical retraction.
	Procedures (18%)	T9.	Select retraction cord or retraction material to displace tissue.	K29. K30. K31. K32.	Knowledge of types of chemical compounds associated with impregnated cords. Knowledge of physiological effects of chemical compounds used in cord retraction. Knowledge of types of retraction cords and their sizing. Knowledge of criteria for selecting retraction cords based on clinical indications. Knowledge of types of retraction pastes. Knowledge of criteria for selecting retraction paste based on clinical indications.
		T10.	Place retraction cord or retraction paste to prepare tissue for impression procedures.		Knowledge of techniques for placing retraction cords or retraction paste. Knowledge of types of instruments used to place retraction cords or retraction paste.
		T11.	Observe patient during retraction process to monitor tissue or physiological responses.		Knowledge of signs of irritation or tissue damage during cord retraction. Knowledge of techniques for managing irritation or tissue damage in response to cord retraction.
		T12.	Remove retraction cord according to guidelines to prevent soft tissue damage.	K39.	Knowledge of the relationship between retraction time and periodontal response. Knowledge of techniques for removing retraction cords. Knowledge of methods for preventing tissue damage during cord removal.
		T13.	Take final impression to capture oral conditions for fixed indirect restorations.	K42.	Knowledge of techniques for taking final impressions. Knowledge of methods for managing sulcular fluids during final impressions. Knowledge of methods for managing impression materials and conditions tha impact quality of impression.
		T14.	Take final impression to capture oral conditions for tooth-borne removable prosthesis.		Knowledge of techniques for taking final impressions. Knowledge of methods for managing impression materials and conditions that impact quality of impression.

TREATMENT PROCEDURES (57%), continued – This area assesses the candidate's knowledge of preparing for and providing treatment services. These
services include preparing for and taking final impressions and activities related to placing and finishing direct and indirect restorations that restore tooth form
and function. These functions are performed under the supervision of a licensed dentist.

	Section	Task Statements	Knowledge Statements
2B.	Direct and Indirect Restorations (34%)	T15. Isolate oral cavity to preserve integrity of restorative area.	<ul><li>K44. Knowledge of techniques for isolating restorative area.</li><li>K45. Knowledge of types of devices and materials used to isolate restorative area.</li></ul>
		T16. Select materials for direct restoration to address clinical indications.	<ul> <li>K46. Knowledge of types of material used for direct restorations and their indications.</li> <li>K47. Knowledge of methods for selecting material based on location and type or direct restoration.</li> <li>K48. Knowledge of contraindications associated with direct restoration materials</li> </ul>
		T17. Place and contour direct restorations to restore proper tooth form, function, and margins.	<ul><li>K49. Knowledge of techniques for placing and contouring direct restorations.</li><li>K50. Knowledge of methods for evaluating form and function of direct restorations.</li></ul>
		T18. Adjust direct restorations to customize them to patient's oral conditions.	<ul><li>K51. Knowledge of methods for evaluating occlusion, margins, and contact discrepancies.</li><li>K52. Knowledge of techniques for adjusting direct restorations.</li></ul>
		T19. Finish direct restorations to provide a smooth surface or prevent irritation.	<ul><li>K53. Knowledge of techniques for finishing and polishing direct restorations.</li><li>K54. Knowledge of effects of improper or incomplete finishing and polishing.</li></ul>
		T20. Adjust indirect restorations to ensure proper fit.	K55. Knowledge of techniques for adjusting indirect restorations.
		T21. Cement final indirect restorations to restore tooth function.	<ul><li>K56. Knowledge of types of cement and their indications.</li><li>K57. Knowledge of techniques for cementing indirect restorations.</li><li>K58. Knowledge of types of instruments used to cement indirect restorations.</li></ul>
		T22. Remove excess subgingival cement to prevent periodontal infection or inflammation.	<ul><li>K59. Knowledge of techniques for removing subgingival cement.</li><li>K60. Knowledge of instruments used to remove subgingival cement.</li><li>K61. Knowledge of signs of infection or inflammation associated with residual subgingival cement.</li></ul>
		T23. Identify factors impacting proper placement of restorations to prevent damage or decay.	<ul><li>K62. Knowledge of the relationship between occlusion and potential for damage or decay.</li><li>K63. Knowledge of signs of postoperative complications.</li></ul>
		T24. Recognize conditions requiring additional attention to involve dentist in evaluation of preparation.	<ul><li>K64. Knowledge of enamel and oral histology.</li><li>K65. Knowledge of types of preparation characteristics associated with indirect restorations.</li></ul>
		T25. Select endodontic master and accessory points to fill canal.	K66. Knowledge of materials associated with master and accessory points.

2. TREATMENT PROCEDURES (57%), continued – This area assesses the candidate's knowledge of preparing for and providing treatment services. These services include preparing for and taking final impressions and activities related to placing and finishing direct and indirect restorations that restore tooth form and function. These functions are performed under the supervision of a licensed dentist.

	Section	Task Statements	Knowledge Statements
2C.	Treatment Specialty Area (5%)	T26. Verify size of master points to ensure proper cone fit for canal.	K67. Knowledge of techniques for fitting master points and accessory points.
			<ul><li>K68. Knowledge of types of endodontic cement material.</li><li>K69. Knowledge of techniques for cementing endodontic master and accessory points.</li></ul>

3. HEALTH AND SAFETY (8%) – This area assesses the candidate's knowledge of maintaining a safe and sanitary work environment and adhering to infection control protocols and standard precautions.

Task Statements	Knowledge Statements
Identify signs of medical emergencies to address situations that require immediate intervention.	<ul> <li>K70. Knowledge of signs of allergic reaction or anaphylactic shock.</li> <li>K71. Knowledge of signs of medical crisis or emergency.</li> <li>K72. Knowledge of methods for administering emergency first aid and Basic Life Support (BLS).</li> </ul>
Implement safety precautions to minimize risk to patient and dental health care personnel during treatment.	<ul> <li>K73. Knowledge of guidelines for providing for patient safety during dental health care procedures.</li> <li>K74. Knowledge of guidelines for providing for health care personnel safety during dental health care procedures.</li> <li>K75. Knowledge of types of adverse events or injury that can result from inadequate safety dental health care precautions.</li> </ul>
Implement infection prevention and control procedures to mitigate disease transmission during dental treatment.	<ul> <li>K76. Knowledge of types of infections or communicable diseases and their route of transmission.</li> <li>K77. Knowledge of methods for preventing the spread of infectious and communicable pathogens.</li> <li>K78. Knowledge of guidelines for sterilization and disinfection in dental health care delivery.</li> </ul>
Implement protocols regarding hazardous or medical waste to manage materials used or generated during dental treatment.	<ul><li>K79. Knowledge of types of waste associated with dental treatments and their contamination potential.</li><li>K80. Knowledge of guidelines for handling and disposing of hazardous or medical waste materials.</li></ul>

4. LAWS AND REGULATIONS (10%) – This area assesses the candidate's knowledge of laws and regulations regarding licensing requirements, scope of practice, professional conduct, and professional responsibilities.

Task Statements	Knowledge Statements
T32. Comply with laws regarding consent to respect patients' right to make informed treatment decisions.	K81. Knowledge of laws regarding patient consent.
T33. Comply with Health Insurance Portability and Accountability Act (HIPAA) laws to respect patient right to privacy in dental health care delivery.	K82. Knowledge of laws related to the Health Insurance Portability and Accountability Act (HIPAA).
T34. Report instances of suspected abuse, neglect, and exploitation to protect vulnerable populations.	<ul> <li>K83. Knowledge of signs of child abuse or neglect.</li> <li>K84. Knowledge of signs of dependent adult abuse, neglect, or exploitation.</li> <li>K85. Knowledge of signs of elder adult abuse, neglect, or exploitation.</li> <li>K86. Knowledge of methods for reporting child, elder, or dependent adult abuse.</li> </ul>
T35. Comply with laws about record-keeping to document, store, and dispose of patient charts or records.	K87. Knowledge of legal standards for patient record-keeping and documentation. K88. Knowledge of laws regarding the storage and disposal of patient charts or records.
T36. Comply with laws about professional conduct to maintain professional integrity.	K89. Knowledge of laws regarding professional conduct.
T37. Comply with laws about scope of practice to maintain professional boundaries.	K90. Knowledge of laws regarding scope of practice.



## OCCUPATIONAL ANALYSIS OF THE ORTHODONTIC ASSISTANT PRACTICE



## TABLE 13 - ORTHODONTIC ASSISTANT EXAMINATION OUTLINE

1. Patient Information and Diagnostic Records (10%) – This area assesses the candidate's ability to review information about a patient's history and oral conditions as they relate to orthodontic treatment. This area also assesses the candidate's ability to assist with diagnostic records and to chart information related to orthodontic treatment. These activities are performed under the supervision of a dentist or orthodontist.

Section	Tasks	Associated Knowledge Statements			
1A. Review Patient Information	T1. Review information about patient history to identify conditions that may affect orthodontic		Knowledge of common medical conditions or medications that affect orthodontic treatment.		
(6%)	treatment.	K2.	Knowledge of oral conditions that impact orthodontic treatment.		
		K3.	Knowledge of methods for collecting information about patient history.		
	T2. Review extraoral and intraoral conditions or	K4.	Knowledge of classifications of occlusion and malocclusion.		
	abnormalities to determine implications for orthodontic treatment.	K5.	Knowledge of the relationship between facial or oral abnormalities and orthodontic problems.		
		K6.	Knowledge of the effects of diet and personal habits on orthodontic problems.		
			Knowledge of the relationship between speech patterns and orthodontic problems.		
	T3. Chart patient information to document	K8.	Knowledge of universal numbering and Palmer quadrant notation systems.		
	orthodontic treatment.	K9. K10.	Knowledge of methods for charting oral conditions and problems.		
20			Knowledge of methods for recording medical or dental history for use in treatment.		
1B. Assist with	T4. Prepare patient for intraoral and extraoral	K11.	Knowledge of types of radiographic imaging.		
Diagnostic	radiographs or cone-beam computed	K12.	Knowledge of procedures for taking digital or conventional radiographs.		
Records (4%)	tomography (CBCT) to assist the dentist in determining the position of teeth and jaw.	K13.	Knowledge of methods for patient management and safety during radiograph procedures.		
			Knowledge of factors that impact radiographic imaging and quality.		
	T5. Obtain maxillary and mandibular impressions	K15.	Knowledge of types of impression instruments and materials.		
	or digital scans to assist in preparing for	K16.	Knowledge of methods for taking impressions and tray placement.		
	treatment or appliance.	K17.	Knowledge of factors that impact impression quality.		
		K18.	Knowledge of methods for taking digital scans.		
		K19.	Knowledge of factors that impact digital scan quality.		
	T6. Prepare bite registrations to index maxillary	K20.	Knowledge of types of materials used in bite registrations.		
	and mandibular arches.	K21.	Knowledge of methods for taking bite registrations.		
. <u>.</u>		K22.	Knowledge of techniques for bite registration cleanup and preparation for use.		

2. Orthodontic Procedures (60%) – This area assesses the candidate's ability to prepare for and to provide orthodontic assistant services. This includes services related to bonding, the placement and removal of orthodontic components, and use of auxiliaries. This area also assesses the candidate's ability to educate the patient about oral health and orthodontic maintenance. These activities are performed under the supervision of an orthodontist.

Section		Tasks		Associated Knowledge Statements
2A. Treatment Preparation (9%)		es and stages of treatment to prepare ntic procedures.	K24.	Knowledge of types and stages of orthodontic treatment. Knowledge of types of tooth movement achieved in orthodontic treatments. Knowledge of processes and limitations involved in tooth movement.
	T8. Prepare ins orthodontic	truments to facilitate use in treatment.	K26.	Knowledge of types of orthodontic instruments and their associated uses. Knowledge of methods for preparing, caring for, and storing orthodontic instruments.
		conents and materials to be used in appliance or auxiliaries.	K29. K30. K31.	Knowledge of types of orthodontic components and their functions. Knowledge of types of auxiliaries and their functions. Knowledge of methods for selecting orthodontic components or auxiliaries based on dentist's instructions. Knowledge of types of bonding materials. Knowledge of methods for selecting bonding materials based on dentist's instructions.
2B. Orthodontic Bands and Brackets (20%)	T10. Place sepa bands.	eparators to create space for orthodontic	K34. K35.	Knowledge of types of orthodontic separators and their functions. Knowledge of types of instruments used to place orthodontic separators. Knowledge of techniques for placing orthodontic separators. Knowledge of signs of tissue irritation or infection associated with orthodontic appliances.
	T11. Place band or auxiliarie	s to attach orthodontic appliance parts s.	K38. K39. K40. K41.	Knowledge of types of orthodontic bands and their functions. Knowledge of methods for fitting orthodontic bands. Knowledge of methods for cementing orthodontic bands. Knowledge of factors that impact adhesion of orthodontic components. Knowledge of methods for removing excess cement from supragingival surfaces. Knowledge of types of instruments used to place orthodontic bands. Knowledge of signs of tissue irritation or infection associated with orthodontic appliances.
		n orthodontic brackets to facilitate of teeth to prescribed position.	K44. K45. K40. K46.	Knowledge of types of orthodontic brackets and their functions. Knowledge of methods for placing brackets based on dentist's instructions. Knowledge of methods for bonding orthodontic brackets. Knowledge of factors that impact adhesion of orthodontic components. Knowledge of methods for removing excess bonding material from surfaces of teeth. Knowledge of types of instruments used to place orthodontic brackets. Knowledge of signs of tissue irritation or infection associated with orthodontic appliances.

2. Orthodontic Procedures (60%) (continued) – This area assesses the candidate's ability to prepare for and to provide orthodontic assistant services. This includes services related to bonding, the placement and removal of orthodontic components, and use of auxiliaries. This area also assesses the candidate's ability to educate the patient about oral health and orthodontic maintenance. These activities are performed under the supervision of an orthodontist.

Section	Tasks	Associated Knowledge Statements
2C.Orthodontic Archwires and Ligatures (20%)	T13. Place archwires to provide the force in moving teeth to prescribed position.	<ul> <li>K48. Knowledge of the types of arch wires and their functions.</li> <li>K49. Knowledge of methods for placing archwires based on dentist's instructions.</li> <li>K50. Knowledge of methods for terminating archwires.</li> <li>K51. Knowledge of types of instruments used to place orthodontic archwires.</li> <li>K36. Knowledge of signs of tissue irritation or infection associated with orthodontic appliances.</li> </ul>
	T14. Place ligatures to connect wire to fixed orthodontic appliance.	<ul> <li>K52. Knowledge of types of ligatures and their functions.</li> <li>K53. Knowledge of methods for placing ligatures based on dentist's instructions.</li> <li>K54. Knowledge of types of instruments used to place orthodontic ligatures.</li> <li>K36. Knowledge of signs of tissue irritation or infection associated with orthodontic appliances.</li> </ul>
2D. Auxiliaries, Appliances, and Post-treatment N Procedures. (7%)	T15. Assist in the placement of intraoral or extraoral auxiliaries to increase effectiveness of braces.	<ul> <li>K55. Knowledge of types of intraoral and extraoral auxiliaries and their functions.</li> <li>K56. Knowledge of methods for placing or fitting intraoral and extraoral auxiliaries based on dentist's instructions.</li> <li>K57. Knowledge of types of instruments used to place intraoral and auxiliaries.</li> <li>K58. Knowledge of factors that impact the efficacy of intraoral and extraoral auxiliaries.</li> </ul>
	T16. Remove orthodontic components to prepare for next treatment, phase, or completion.	<ul> <li>K59. Knowledge of methods for removing orthodontic appliance components.</li> <li>K60. Knowledge of methods for removing orthodontic cement or bonding agents.</li> <li>K61. Knowledge of instruments used in the removal of orthodontic appliance components.</li> </ul>
	T17. Check fixed or removable appliances to verify fit or retention.	<ul><li>K62. Knowledge of types of fixed or removable appliances and their functions.</li><li>K63. Knowledge of methods for verifying fixed and removable appliances fit or retention.</li></ul>
	T18. Assist with post-treatment procedures to finalize or fine-tune orthodontic outcomes.	<ul> <li>K64. Knowledge of types of post-treatment procedures and their functions.</li> <li>K65. Knowledge of types of instruments used in performing post-treatment procedures.</li> </ul>

2. Orthodontic Procedures (60%) (continued) – This area assesses the candidate's ability to prepare for and to provide orthodontic assistant services. This includes services related to bonding, the placement and removal of orthodontic components, and use of auxiliaries. This area also assesses the candidate's ability to educate the patient about oral health and orthodontic maintenance. These activities are performed under the supervision of an orthodontist.

Section	Tasks	Associated Knowledge Statements		
2E. Patient Education (4%)	T19. Educate patients about pre- and post-treatment instructions to promote compliance.	K66. Knowledge of symptoms patients may encounter following orthodontic treatment.		
		K67. Knowledge of techniques for pain management following orthodontic treatment.		
		K68. Knowledge of methods for educating patients about pre- and post- treatment instructions.		
	T20. Educate patients about orthodontic hygiene and care to maintain oral health or prevent damage.	<ul> <li>K69. Knowledge of the effects of poor hygiene and care related to orthodontics.</li> <li>K70. Knowledge of methods for educating patients about oral hygiene related to orthodontics.</li> </ul>		
	T21. Educate patients about appliance care to prevent damage.	<ul> <li>K71. Knowledge of the effects of improper handling on orthodontic appliances.</li> <li>K72. Knowledge of methods for educating patients about orthodontic appliance care.</li> </ul>		
22	T22. Educate patients about dietary recommendations to prevent damage to teeth or appliances.	K73. Knowledge of the effects of foods and beverages on orthodontic appliances and teeth.		
ω		K74. Knowledge of methods for educating patients about dietary recommendations during orthodontic treatment.		

3. Infection Control and Health and Safety (18%) – This area assesses the candidate's ability to maintain a safe and sanitary work environment and to adhere to infection control protocols and standard precautions.

	Section	Tasks	Associated Knowledge Statements
3A.	Patient Safety and Prevention of Disease Transmission	T23. Provide patient with safety precautions to enhance protection during orthodontic treatment.	<ul> <li>K75. Knowledge of methods for using safety precautions with patients.</li> <li>K76. Knowledge of types of safety equipment for protecting patients.</li> <li>K77. Knowledge of techniques for protecting patients during diagnostic tests and imaging.</li> </ul>
	(9%)	T24. Implement barrier, evacuation, and rinse techniques to prevent the spread of disease through aerosol, droplets, and splatter.	<ul> <li>K78. Knowledge of equipment for providing protective barriers and evacuation.</li> <li>K79. Knowledge of techniques for using barriers, evacuation, and rinses.</li> <li>K80. Knowledge of types of infectious diseases and their modes of transmission.</li> </ul>
		T25. Sanitize hands according to protocols to prevent the transmission of diseases.	<ul> <li>K81. Knowledge of techniques for sanitizing hands during orthodontic treatments.</li> <li>K80. Knowledge of types of infectious diseases and their modes of transmission.</li> </ul>
		T26. Wear personal protective equipment to prevent contamination.	<ul><li>K82. Knowledge of techniques for using personal protective equipment.</li><li>K80. Knowledge of types of infectious diseases and their modes of transmission.</li></ul>
24		T27. Adhere to infectious disease prevention protocols to reduce risk of disease transmission.	<ul> <li>K83. Knowledge of techniques for preventing the spread of infectious diseases.</li> <li>K80. Knowledge of types of infectious diseases and their modes of transmission.</li> </ul>
		T28. Identify signs of medical emergencies to address situations that require immediate intervention.	<ul> <li>K84. Knowledge of signs of allergic reaction or anaphylactic shock.</li> <li>K85. Knowledge of signs of medical crisis or emergency.</li> <li>K86. Knowledge of methods for obtaining emergency medical assistance.</li> <li>K87. Knowledge of methods for administering emergency first aid and CPR.</li> </ul>
3B.	Equipment Disinfection and Cross- Contamination Prevention (9%)	T29. Disinfect treatment area and equipment to prepare for or complete orthodontic treatment.	<ul> <li>K88. Knowledge of methods for disinfecting treatment areas and equipment.</li> <li>K89. Knowledge of barrier techniques for protecting treatment areas and equipment.</li> <li>K90. Knowledge of methods for monitoring dental waterlines and water quality.</li> <li>K91. Knowledge of methods for disinfecting evacuation lines.</li> </ul>
	、 / ·	T30. Sterilize orthodontic instruments to prevent patient-to-patient disease transmission.	K92. Knowledge of types of sterilization processes. K93. Knowledge of methods for sterilizing instruments. K94. Knowledge of techniques for storing instruments before and after use.
		T31. Adhere to disposal safety protocols to discard contaminated materials or sharps.	K95. Knowledge of techniques for the safe disposal of contaminated materials. K96. Knowledge of techniques for the safe disposal of sharps.

4. Laws and Regulations (12%) – This area assesses the candidate's knowledge of laws and regulations regarding permit requirements, scope of practice, professional conduct, and professional responsibilities.

Section		Tasks		Associated Knowledge Statements
	T32.	Comply with laws about consent to respect patients' right to make informed treatment decisions.	K97.	Knowledge of laws regarding patient consent.
	Т33.	Comply with Health Insurance Portability and Accountability Act (HIPAA) regulations to provide services that protects patients' private health information.	K98.	Knowledge of laws related to the Health Insurance Portability and Accountability Act (HIPAA).
	T34.	Report instances of suspected abuse, neglect, and exploitation to protect vulnerable populations.	K99. K100. K101. K102.	Knowledge of signs of child abuse or neglect. Knowledge of signs of dependent adult abuse, neglect, or exploitation. Knowledge of signs of elder adult abuse, neglect, or exploitation. Knowledge of methods for reporting child, elder, or dependent adult abuse.
	T35.	Comply with laws about record-keeping to document, store, and dispose of patient charts or records.	K103. K104.	Knowledge of legal standards for patient record-keeping and documentation. Knowledge of laws regarding the storage and disposal of patient charts or records.
	T36.	Comply with laws about professional conduct to maintain professional integrity.	K105.	Knowledge of laws regarding professional conduct.
	T37.	Comply with laws about scope of practice to maintain professional boundaries.	K106.	Knowledge of laws regarding scope of practice.

### Dental Board of California Dental Sedation Assistant Examination Outline

I. **Patient Monitoring (40%)** – This area assesses the candidate's ability to monitor patients undergoing conscious sedation or general anesthesia utilizing data from noninvasive instrumentation (i.e., pulse oximeteres, electrocardiograms, capnography, blood pressure, pulse, and respiration rate monitoring devices) and visual signs and symptoms of patient's physiological functioning.

Job Task		Associated Knowledge Statements	
T1. (8%)	Monitor patient by utilizing physical and clinical signs related to levels of anesthesia.	K1.	Knowledge of physical signs and symptoms of cardiovascular functions related to levels of anesthesia.
		K2.	Knowledge of physical signs and symptoms of respiratory functions related to levels of anesthesia.
		K3.	Knowledge of physical signs and symptoms of central and peripheral nervous system related to levels of anesthesia (i.e., levels of consciousness, etc.).
		K4.	Knowledge of physical signs and symptoms of metabolic functions related to levels of anesthesia.
		K24.	Knowledge of scope of practice and supervisory requirements related to monitoring a sedation patient.
			T2A. Routine Physiological Changes (18%)
	Monitor patient by utilizing data from noninvasive devices related to levels of anesthesia.	K5	Knowledge of noninvasive devices and data utilized to monitor cardiovascular functions related to levels of anesthesia (i.e., EKG, BP monitor, etc.).
T2. (32%)		K6.	Knowledge of noninvasive devices and data utilized to monitor respiratory functions related to levels of anesthesia (i.e., pulse oximeter, capnography, precordial stethoscope, etc.).
		K7.	Knowledge of noninvasive devices and data utilized to monitor metabolic functions related to levels of anesthesia (i.e., capnography, etc.).
		K24.	Knowledge of scope of practice and supervisory requirements related to monitoring a sedation patient.
			T2B. Dental Sedation Emergencies and Complications (14%)
		K8.	Knowledge of physical signs and symptoms indicating complications or a medical emergency related to sedation (i.e., airway, respiratory, cardiovascular, neurological).
		K9.	Knowledge of noninvasive device data indicating complications or a medical
		K24.	emergency.
		Ν24.	Knowledge of scope of practice and supervisory requirements related to monitoring a sedation patient.

### Dental Board of California Dental Sedation Assistant Examination Outline

II. **Drug Identification and Draw (30%)** – This area assesses the candidate's ability to identify and draw drugs, limited to identification of appropriate medications, ampule and vial handling in preparation for drug and medication draw, and withdrawing drugs of correct amount as verified by the supervising licensed dentist.

Job Task	Associated Knowledge Statements
<ul> <li>T3. Identify and verify drugs and</li> <li>(20%) medications ordered by the licensed provider.</li> </ul>	<ul> <li>K10. Knowledge of overview (pharmacology, contraindications, adverse reactions and characteristics, etc.) of classes of drugs and medications used in contemporary sedation and general anesthesia.</li> <li>K11. Knowledge of overview (pharmacology, contraindications, adverse reactions and characteristics, etc.) of classes of drugs and medications used in contemporary medical emergency treatment (i.e., reversal agents, oxygen, epinephrine, etc.).</li> <li>K12. Knowledge of procedures to identify and verify drugs and medications ordered (i.e., expiration date, concentration, generic versus brand name, etc.).</li> <li>K25. Knowledge of scope of practice and supervisory requirements related to identifying and verifying drugs.</li> </ul>
T4. Draw drugs and medications ordered by the licensed provider.	<ul> <li>K13. Knowledge of ampule and vial handling in preparation for drug and medication draw.</li> <li>K14. Knowledge of techniques and measurement for drug and medication drawing and syringe labeling.</li> <li>K15. Knowledge of characteristics of syringes and needles including use, types, gauges, lengths, and components.</li> <li>K26. Knowledge of scope of practice and supervisory requirements related to drawing drugs and medications.</li> </ul>

#### Dental Board of California Dental Sedation Assistant Examination Outline

III. Adding Drugs, Medications and Fluids to Intravenous Lines (22%) – This area assesses the candidate's ability to add drugs, medications, and fluids to intravenous lines using a syringe, provided that a supervising licensed dentist is present at the patient's chairside, limited to determining patency of intravenous line, selection of injection port, syringe insertion into injection port, occlusion of intravenous line and blood aspiration, line release and injection of drugs for appropriate time interval.

Job Task	Associated Knowledge Statements
T5. Add drugs, medications, and fluids to (12%) intravenous lines using a syringe.	<ul> <li>K16. Knowledge of procedures and techniques for adding drugs, medications, and fluids to IV lines, including infusion and IV bolus, drug amounts and time intervals between doses.</li> <li>K17. Knowledge of armamentaria for adding drugs, medications and fluids to IV lines (i.e., injection ports, syringe types, etc.).</li> <li>K27. Knowledge of scope of practice and supervisory requirements related to administering drugs, medications and fluids.</li> </ul>
T6. Determine patency of intravenous (10%) line.	<ul> <li>K18. Knowledge of techniques to evaluate patency of IV lines.</li> <li>K19. Knowledge of recognition and management of IV related complications (patency, air in line, etc.).</li> <li>K20. Knowledge of armamentaria for IV set-ups, including types of fluid, IV lines, and connectors.</li> </ul>

IV. **Removal of intravenous lines (8%)** – This area assesses the candidate's ability to remove intravenous lines.

Job Task	Associated Knowledge Statements
<ul><li>T7. Remove intravenous lines.</li><li>(8%)</li></ul>	<ul><li>K21. Knowledge of signs and symptoms of complications associated with IV site during removal.</li><li>K22. Knowledge of procedures (timing, indications, etc.) for the removal of IV lines.</li></ul>