



Job Ready Assessment Blueprint

Dental Laboratory Technology



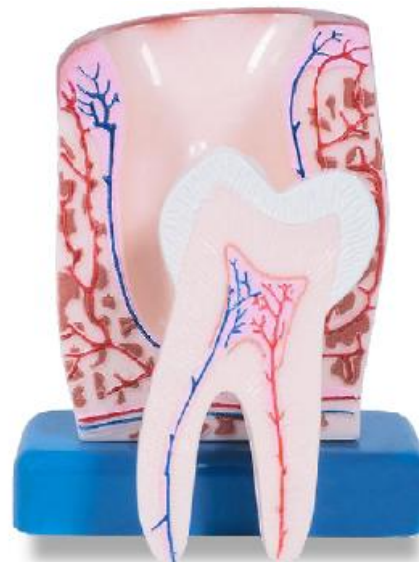
Test Code: 1417 / Version: 01

“Measuring What Matters”

Specific Competencies and Skills Tested in this Assessment:

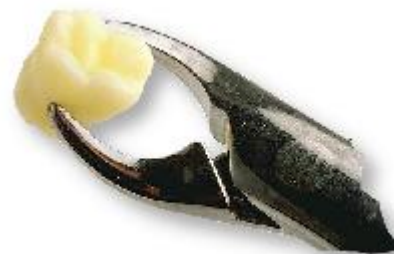
Oral and Dental Anatomy

- Tooth anatomy and supporting tissue
- Tooth surfaces
- Oral anatomy
- Tooth classification
- Dental materials



Removable Prosthodontics-Complete Dentures

- Fabrication of preliminary casts
- Fabrication of custom trays with spacer
- Fabrication of master casts
- Fabrication of gutta percha baseplates
- Occlusal Rims (performed and fanfolded)
- Articulation
- Anterior set-up/basic
- Posterior set-up 33 degree
- Festooning
- Investing and wax elimination
- Packing
- Denture recovery/deflask
- Finish/polish
- Light cured & vacuum form baseplates
- Anterior set-up - feminine/masculine
- Posterior set-up - 0, 10, 20 degree
- Dental materials



Denture Repair

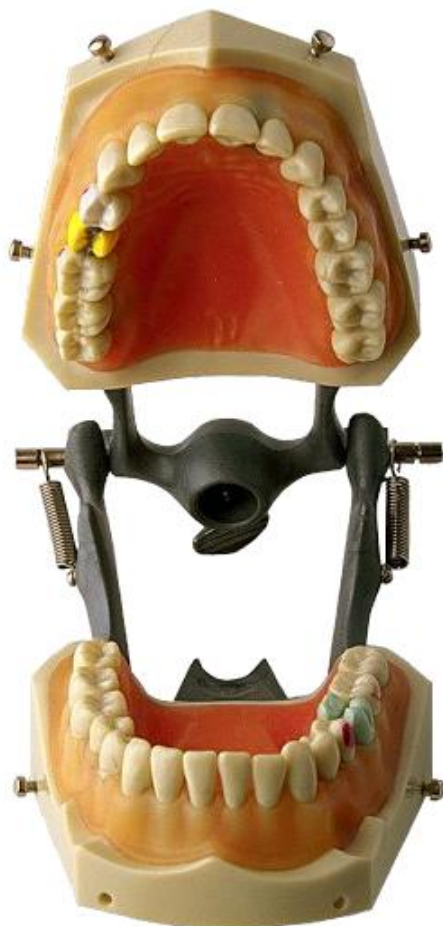
- Singular tooth/multiple tooth repairs
- Denture flange repair
- Fracture repair (simple and midline)
- Relining
- Rebasing porcelain or plastic teeth
- Dental materials

Specific Competencies and Skills continued:**Removable Prosthodontics-Partial Dentures**

- Basic survey and design
- Use of the surveyor
- Fabrication of refractory cast
- Pattern construction
- Spruing - upper and lower
- Dental materials

Fixed Prosthodontics-Crown and Bridge

- Model and die fabrication
- Articulation
- Prepping dies - marginizing
- Waxing (full contour, single, multiple units)
- Investing and burnout
- Gas-oxygen torch casting
- Full contour crown
- Three unit full contour bridge
- Finish/polish precious metal
- Soldering
- Model and die fabrication - pindex
- Disposable articulation
- Tray impression technique
- Waxing - cutback/coping
- Spruing - indirect, direct
- Induction casting - non-precious
- Porcelain single coping structure
- Bridge coping substructure
- Finishing - non precious
- Dental materials

**Physiology of the Tooth, Skull and Occlusion**

- Crown surfaces of the tooth
- Developmental lobes
- Maxillary and mandibular relationship
- Proximal contact areas
- Embasures and interproximals

Specific Competencies and Skills continued:

Dental Materials and Equipment

- Gypsum products
- Impression materials
- Denture base acrylic
- Metals
- Dental waxes
- Dental equipment

Fixed Prosthodontics-Ceramics

- Oxidation of the metal
- Application of the opaque
- Body/indisal buildup
- Stages of porcelain firing
- Grinding and contouring of teeth
- Staining and glazing
- Dental materials

Orthodontics

- Wirebending
- Acrylic work
- Finish/polish
- Hawley retainer
- Dental materials

Safety and Health

- Material safety
- Equipment safety
- Infection safety

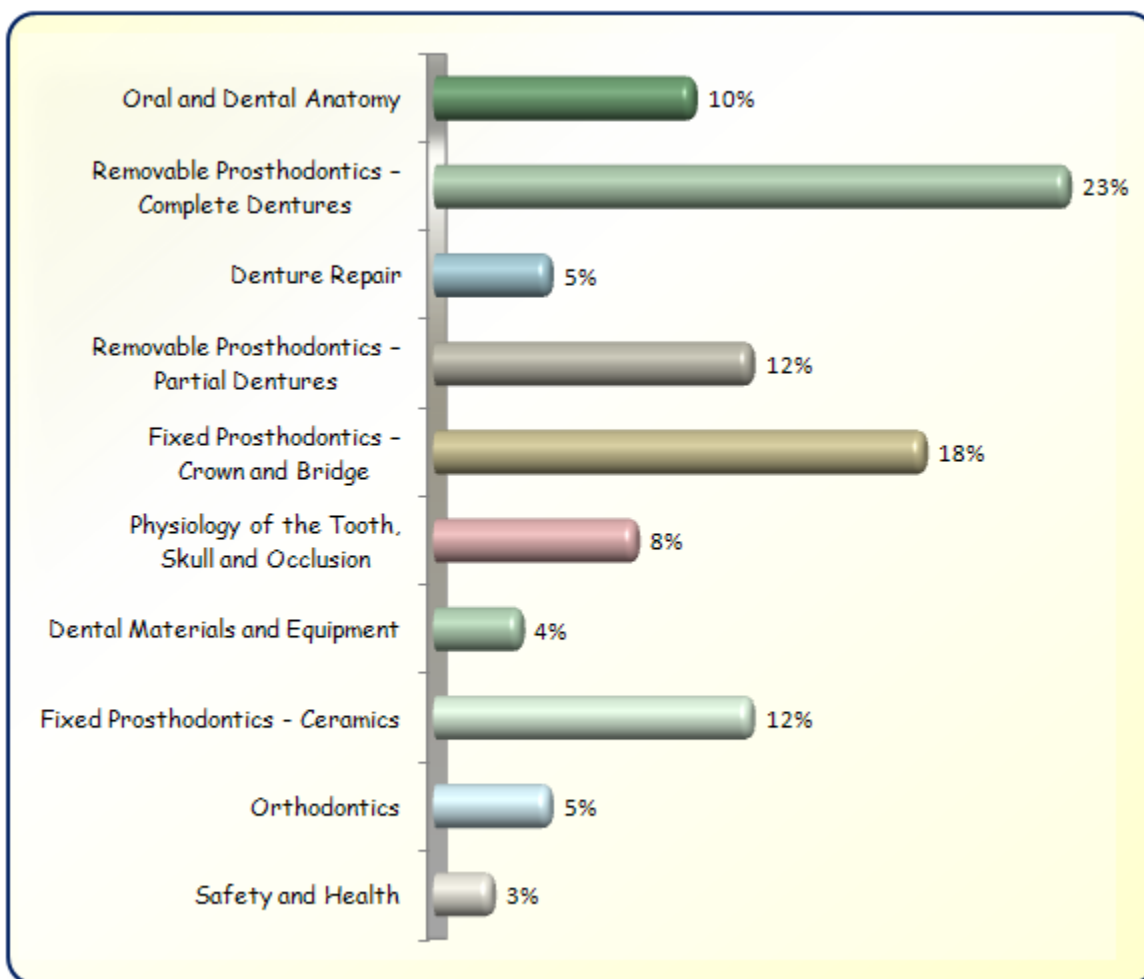


Written Assessment:

Administration Time: 3 hours

Number of Questions: 173

Areas Covered:



Sample Questions:

The _____ defines the soft and hard palate of the maxillary denture.

- A. incisive papilla
- B. retromolar pad
- C. tuberosities
- D. vibrating line

Secondary impressions for master casts for complete dentures are poured in

- A. plaster
- B. dental stone
- C. die stone
- D. investment

In the partial framework procedure, a heat resistant duplicate of a master cast is a/an _____ cast.

- A. adaptive
- B. average
- C. refractory
- D. replacement

The solder selected for use on gold alloy should fuse at a temperature _____ that of the gold alloy.

- A. 25 degrees below
- B. 75 degrees below
- C. 100 degrees below
- D. the same as

When ordering teeth, a "1 x 16" would refer to

- A. upper and lower posteriors
- B. upper and lower anteriors
- C. upper and lower anteriors and posteriors
- D. upper anterior and posterior



Performance Assessment:

Administration Time: 1 hour and 45 minutes

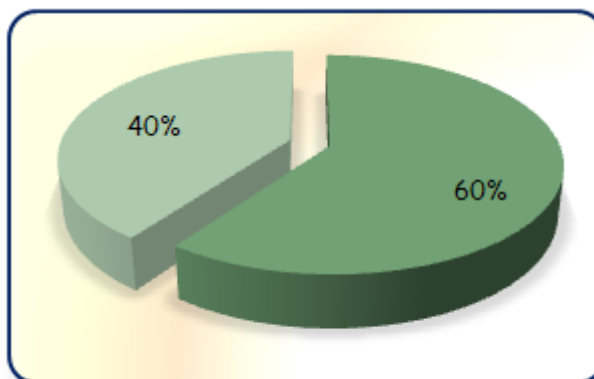
Number of Jobs: 1 - two parts

Areas Covered:

60% Impression Tray Model
Models straight. Correct centric occlusion. Neatness. Saw cuts. Die removal. Margin definition, smoothness, undercut. Preparation of die. Preparation of margin.

40% Full Contour, Mandibular 1st Molar Crown

Margins sealed and waxed. Contact points. Tooth contour. Occlusion with opposing arch. Internal surface. Anatomy. Smoothness.



Sample Job: Impression Tray Model

Maximum Time: 40 minutes

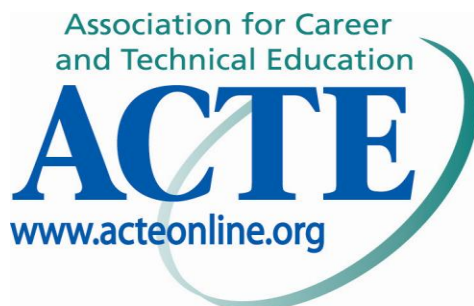
Participant Activity: Participants are to provide an articulated one or two-pour model that will provide a right or left 1st mandibular or maxillary molar.

Participants may use a one-pour technique (such as the Vertex Impression Technique) OR a two-pour model technique with dowel pins.

Participants will have made the one-pour or two-pour model prior to the evaluation. Model must be articulated. Participants will be evaluated on the provided models.

Models provided will NOT have the die for the molar cut out.

Participants are to saw the designated tooth out of the model, marginize, and prepare the tooth for waxing.



The Association for Career and Technical Education (ACTE), the leading professional organization for career and technical educators, commends all students who participate in career and technical education programs and choose to validate their educational attainment through rigorous technical assessments. In taking this assessment you demonstrate to your school, your parents and guardians, your future employers and yourself that you understand the concepts and knowledge needed to succeed

in the workplace. Good Luck!