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PROSTHODONTICS

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**Question: 1**

**Q1: For what purpose articulator is used and why?**

An articulator is a mechanical hinged device used in dentistry to which plaster casts of the maxillary (upper) and mandibular (lower) jaw are fixed, reproducing some or all the movements of the mandible in relation to the maxilla. The human maxilla is fixed and the scope of movement of the mandible (and therefore the dentition) is dictated by the position and movements of the bilateral temporomandibular joints, which sit in the glenoid fossae in the base of the skull. The temporomandibular joints are not a simple hinge but rotate and translate forward when the mouth is opened.

The principal movements reproduced are: at rest (centric jaw relation), in protrusion (to bite), from side to side (lateral excursion) to chew, in retrusion, and any possible combination of these. Counter-intuitively, it is the cast of the maxilla which moves relative to the cast of the mandible and the articulator.

Articulators are used mainly by dental technicians in fabrication of prostheses and information regarding bite can be communicated from the prescribing dentist via a facebow alone. However it is advantageous when a system is utilized jointly in which case the clinician should adopt the articulator system currently in use in the dental laboratory as they are not compatible with each other.

# Question: 2

Demonstrate why we perform finishing and polishing procedure?

**Finishing, and Polishing:**

**Finishing**

 A procedure used to reduce excess restorative material to develop appropriate occlusion and contour; this is usually done with rotary cutting instruments. Finishing removes surface blemishes and produces a smooth surface. Finishing requires the hardest appropriate material except at the margin of the restoration, where tooth structure may be affected.

**Polishing;**

 A procedure that produces a shiny, smooth surface by eliminating fine scratches, minor surface imperfections, and surface stains using mild abrasives frequently found in the form of pastes or compounds. Polishing produces little change in the surface. It may have to be repeated periodically during the life of the restoration if tarnish or stains develop.

The goal of finishing and polishing restorations, intraoral appliances, and tooth structure is to remove excess material, smooth roughened surfaces, and produce an esthetically pleasing appearance with minimum trauma to hard and soft tissues. The finishing and polishing of a surface involves removing marginal irregularities, defining anatomic contours and occlusion, removing the surface roughness of the restoration, and producing a mirror-like surface luster. Many benefits are derived from smooth tooth surfaces, restorations, or appliances in the intraoral environment. A smooth surface resists accumulation of soft deposits and stains, is less irritating to the gingival or mucosal tissue, and is esthetically pleasing because it reflects light better. A smooth, highly polished restorative surface is more resistant to the effects of corrosion and surface breakdown. A properly finished and polished surface will contribute to the appearance and longevity of the restoration or appliance and the health of the surrounding oral tissues. Clinicians who perform these functions must have a clear understanding of the factors that cause and control abrasion. Improper use of abrasives can lead to roughening and over reduction of tooth and restorative surfaces. The clinician must be able to recognize that different types of tooth structures and restorative surfaces abrade differently and must use the proper protocol for finishing, polishing, or cleansing that surface. It is also the clinician’s responsibility to teach the patient how too properly care for the surface with home care devices and how to prevent the staining habits that diminish their appearance.

# Question: 3.

Q3: Who can use immediate denture?

1 Not everyone can use an immediate dentures

2. Most obviously those people who have already had all their teeth extracted can’t get an immediate denture as their teeth are already gone

3. For the immediate dentures procedure to work, the patient must have enough teeth left in their mouth to make.

4. A suitable impression of the teeth

5. A suitable registration of their bite

6. If they don’t have enough teeth, or their teeth are in the wrong place to create a proper bite, or if their jaws have already changed shape due to loss of the teeth. They won’t be suitable for the procedure

They can be used as temporary fixtures, immediate dentures are ideally suited for those looking for implant-supported dentures. Immediate dentures are chosen by patients who are unwilling or unable to receive oral implants and provide a good solution to avoid going without a prosthesis following dental extractions. Patients who elect to receive immediate dentures should be counseled about the challenges of wearing removable complete prostheses for the first time, along with surgically associated soreness, swelling, bleeding, bruising and other unpleasant consequences of dental extractions. Mastication and speech may also be awkward and challenging for the first few days (sometimes even weeks) of the immediate denture wearing experience

# Question: 4.

Q4: (a) types of partial denture.

Partial denture:

Definition:

Partial Denture A prosthesis that replaces one or more, but not all of the natural teeth and supporting structures. It is supported by the teeth and/or the mucosa. It may be fixed (i.e. a bridge) or removable.

Fixed partial denture:

Fixed partial denture are dental prostheses that are luted, screwed, or mechanically attached or otherwise securely retained to natural teeth, tooth roots, and/or dental implant abutments

Types of partial denture:

Cast Metal Removable Partial Denture. The most common type of removable partial denture consists of high-quality replacement teeth on a rigid cast metal frame.

* Acrylic Removable Partial Denture (Flipper)
* Flexible Partial Denture
* Fixed Bridge
* Implant-Supported Fixed Bridge
* Acrylic Removable Partial Denture (Flipper)
* Flexible Partial Denture
* Fixed Bridge
* Implant-Supported Fixed Bridge
1. Acrylic Removable Partial Denture (Flipper):

Acrylic partial denture is a dental prosthesis that substitute teeth and associated structures in partially edentulous arch made from acrylic resin and can be removed and replaced at will.

1. Flexible partial denture:

Flexible denture are a kind of partial denture, made up of a softer material than regular denture. These dentures are made of a thin thermoplastic material such as nylon than thicker more rigid acrylic used in full denture.

1. Fixed bridge:

 A dental prosthesis that is definitively attached to natural teeth and replaces missing teeth. Abutment: The tooth that supports and retains a dental prosthesis. Pontic: The artificial tooth that replaces a missing natural tooth.

1. Implant-Supported Fixed Bridge:

An implant support prosthesis is fixed and not removable by patient. This prosthesis is retrievable by the dentist by an unscrewing the retaining screws.

 **(b) What is the difference between survey and surveying?**

**Survey:**

Survey is defined as the method of collection of facts of information about the status

**OR**

Dental survey means collection of facts & analyzing & evaluating them & comparing that data to previous data collected with that of different place.

Basic oral health surveys are defined as surveys to collect the basic information about oral disease status & treatment needs that is needed for planning or monitoring oral health care programs.

OR

 The procedure of locating or delineating the contour and position of the abutment teeth and associated structures before designing a partial denture.

**Surveying:**

The procedure of locating or delineating the contour and position of the abutment teeth and associated structures before designing or removable partial denture.

OR

An analysis and comparison of the prominence of intra oral contours associated with the fabrication of a dental prosthesis.

**Q5: Enlist the role of major connectors?**

**DEFINITION**

The MAJOR CONNECTOR is that part of a RPD that joins the component parts on one side of the arch to those on the opposite side.

Name of components of RPD:

• Major connectors

• Minor connector

• Direct retainer

• Indirect retainer

• Denture base

**General Characteristics**:

* Should be rigid and provide cross-arch stability.
* Should be made from a compatible alloy.
* Should not impinge on oral tissues.
* Should not alter the natural contour on the palatal/lingual surfaces

**FUNCTIONS**

The functions of the major connector are to:

1. Join the various parts of a RPD so that the prosthesis acts as a single unit. A major connector must be rigid so that the component parts do not function A major connector must be rigid so that the component parts do not function independently form one another. This way, forces applied to one part of the RPD are transmitted to other parts and are dissipated by all teeth and tissues contacted, rather than just by those where the force is applied.

2. Maxillary major connectors for tooth-tissue supported RPDs provide some support, retention and direct-indirect retention.

3. Occasionally, in retrognathic jaw relationships, anterior occlusion and incisal guidance is incorporated into the anterior portion of the maxillary major connector.

**1**. Mandibular Major Connectors

The six types of mandibular major connectors include the following:

1. Lingual bar

2. Linguoplate

3. Sublingual bar

4. Lingual bar with cingulum bar (continuous bar)

5. Cingulum bar (continuous bar)

6. Labial bar

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2. Maxillary Major Connectors

 The six types of mandibular major connectors include the following:

1. Single palatal strap (Single palatal bar).

2. Combination anterior and posterior palatal strap (Anterior-posterior palatal bars).

3. Palatal plate-type connector.

4. U-shaped palatal connector/ Horse-shoe.

 All maxillary major connectors should cross the midline at a right angle rather than on a diagonal. It has been suggested that the tongue will accept symmetrically placed components far more readily than those placed without regard for symmetry.

THANX ☺