

TIME ALLOWED: THREE HOURS

Note: Answer **ALL** questions. Use the answer book provided

Marks total: 100. There are two pages of questions.

1. Removable Partial Dentures;

1.1. A dentist has sent a surveyed cast to you to make a cast metal framework for a mandibular Kennedy Class I edentulous case.

1.1.1. What is a dental surveyor?

1.1.2. List and briefly explain the uses of a dental surveyor.

1.2. A dentist returns a cast metal partial denture framework that you have made complaining that it does not fit in the patients mouth. List and briefly explain the reasons why this may have happened.

1.3. List four mandibular major connectors. Briefly explain the indications for each of these and, with the aid of labelled diagrams, explain the shape and dimensions of each of the four mandibular major connectors that you have listed.

30 Marks

2. Complete Dentures;

List, describe and discuss the advantages and disadvantages of the following materials and techniques used for laboratory procedures when fabricating complete dentures;

2.1. Heat-activated denture base resins and the compression moulding technique.

2.2. Heat-activated denture base resins and the injection moulding technique.

2.3. Chemically-activated denture base resins.

2.4. Light-activated denture base resins.

Please supplement your notes with labelled diagrams.

30 Marks

3. Cross infection control;

3.1. Briefly describe and explain the appropriate cross-infection control measures you would use to deal with;

3.1.1. Impressions coming into a laboratory containing the following types of impression materials, that will minimise distortion;

3.1.1.1. Irreversible hydrocolloids,

3.1.1.2. Zinc oxide eugenols,

3.1.1.3. Polyethers,

3.1.1.4. Addition cured silicones.

3.1.2. A repair to an acrylic tooth / flange on a CoCr metal partial denture that will not cause subsequent tarnish and corrosion on the metal framework.

10 Marks

4. Crown and bridge / metal-ceramics;

4.1. Explain and discuss the factors you would need to consider when designing and manufacturing the metal substructure for a metal-ceramic long span bridge supported by natural tooth abutments.

20 Marks

5. Removable orthodontics;

5.1. Explain the difference between retention and anchorage in the design of removable orthodontic appliances.

5.2. Discuss how retention and anchorage can be maximised in the design of a "Roberts Retractor" removable orthodontic appliance. Use diagrams to illustrate your answer.

5.3. Discuss and explain the factors that need to be considered when designing and manufacturing finger springs used for simple tooth movement in removable orthodontic appliances.

10 Marks