

UNIVERSITY OF BOLTON

FACULTY OF HEALTH AND WELLBEING

BSc (HONS) DENTAL TECHNOLOGY

SEMESTER TWO EXAMINATION 2018/2019

**DENTAL TECHNOLOGY TECHNIQUES FOR FIXED
PROSTHODONTICS**

MODULE NO: DNT5103

Date: Friday 24 May 2019

Time: 10.00 am – 12.00 noon

INSTRUCTIONS TO CANDIDATES:

There are 12 questions on this paper.

Answer ALL 9 questions in Section A,
and only 2 questions from Section B.

Marks for parts of questions are shown
in brackets.

There are a total of 100 marks available.

The pass mark is 40%.

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Section A - Answer ALL 9 questions in this section (60 marks)

Question 1:

A dental bridge is a commonly prescribed fixed prosthodontic restoration, illustrate your knowledge of the components of a dental bridge.

Your answer should include:

A diagram.

(2 marks)

The names of each component.

(5 marks)

A brief description/definition of each component.

(5 marks)

Total 12 marks

Question 2:

Illustrate your knowledge of framework design by identifying the advantages and disadvantages of fixed-fixed rigid connector bridges.

11 marks

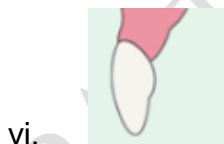
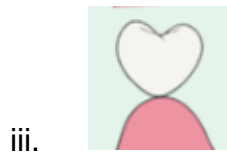
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Question 3:

a. What is collectively illustrated in the 6 images below? (2 marks)

b. Name each of the 6 images according to what they individually illustrate. (6 marks)



Rosenstiel, S.F., Land, M.F., Fujimoto, J. & EBSCO ebooks 2015, *Contemporary fixed prosthodontics*, 5th edn, Mosby, St. Louis.

Total 8 marks

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Question 4:

Suggest 6 reasons for utilising a diagnostic wax-up as part of the restorative process.

8 marks

Question 5:

Demonstrate your knowledge of fixed prosthodontic restorations by suggesting the possible applications for indirect composites.

7 marks

Question 6:

Suggest 4 advantages of Computer-Aided-Design/Computer-Aided-Manufacture (CAD/CAM) in restoration provision.

4 marks

Question 7:

A patient requires a metal-ceramic crown on the upper left central incisor, but has limited occlusal space of 0.4mm, how may this be accommodated in the framework design?

2 marks

Question 8:

A patient presents with a missing tooth due to trauma. All other teeth are healthy and the clinician wants to avoid any unnecessary tooth tissue removal, there is also no space for a resin-bonded bridge. Suggest an alternative restorative option.

2 marks

Question 9:

Illustrate your knowledge of restorative design principles by suggesting the possible impact of incorrect (over-contoured or under-contoured) emergence profile.

6 marks

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Section B - Answer 2 of the 3 questions only (40 marks)

Question 10: Veneers

Veneers are a commonly prescribed fixed prosthodontic restorations, illustrate your knowledge of veneer provision.

- a. Suggest the key elements for success of veneer restorations.
(7 marks)
- b. What are the indications and contraindications for veneer use as a restorative option?
(8 marks)
- c. What are the possible causes of veneer failure?
(5 marks)

Total 20 marks

Question 11: Bridges

A patient presents requiring a bridge, the clinician states that it was not possible to prepare the abutment teeth with a single path of insertion.

- a. Suggest which bridge/connector design may be the most appropriate to use in this case.
(2 marks)
- b. Give a brief description of this type of restoration.
(4 marks)
- c. Appraise the design principles of this particular design by stating the advantages and disadvantages.
(14 marks)

Total 20 marks

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Question 12: Aesthetic Restorations

Review the image below. A patient presents with metal-ceramic crowns on their upper left central and lateral incisors and is complaining of a poor aesthetic result.



Dillon, A (2019). AORC, Available from: <http://drandrewdillon.com.au/crowns>

- a. Define the aesthetic issues presented. (4 marks)
- b. Suggest 4 alternative restorative material options for the fabrication of replacement crowns. (4 marks)
- c. Give a clear rationale for your 4 alternative restorative options. Include advantages and disadvantages of these other restorative options. (12 marks)

Total 20 marks

END OF QUESTIONS