

UNIVERSITY OF GREATER MANCHESTER
QUEENS DENTAL SCIENCES CENTRE
BSc (HONS) DENTAL TECHNOLOGY
SEMESTER TWO EXAMINATION 2024/2025
ORAL ANATOMY AND PHYSIOLOGY AND BASIC
DENTAL APPLIANCE DESIGN
MODULE NO: DNT4102

Date: Monday 12 May 2025

Time: 10.00 am – 12.00 noon

INSTRUCTIONS TO CANDIDATES:

There are 13 questions on this examination paper.

Answer ALL questions on this paper.

Marks for parts of questions are shown in brackets.

There are a total of 100 marks available.

The pass mark is 40%.

Queens Dental Sciences Centre
BSc (Hons) Dental Technology
Semester Two Examination 2024/2025
Oral Anatomy and Physiology and Basic Dental Appliance Design
Module No. DNT4102

1) Define the term aetiology in relation to disease in humans.

3 Marks

2) What is saprophytic nutrition?

4 Marks

3) Explain the meaning of the General Dental Council (GDC) Principle 4 -
“Maintain and protect patients’ information”.

5 Marks

4) Outline the signs and symptoms that would indicate that a patient had
periodontal disease.

8 Marks

5) A patient has presented to their dentist with a significantly resorbed
edentulous mandible.

a) Explain some of the issues that should be considered during treatment
planning.

(4 Marks)

b) How could the position of the mental foramen be a potential issue?

(4 Marks)

c) Suggest 2 ways in which this issue could be alleviated.

(2 Marks)

Total 10 Marks

Please turn the page

Queens Dental Sciences Centre
BSc (Hons) Dental Technology
Semester Two Examination 2024/2025
Oral Anatomy and Physiology and Basic Dental Appliance Design
Module No. DNT4102

- 6) Describe the essential factors for the development of dental caries.

7 Marks

- 7) How does the National Health Service promote healthcare and wellness with the aim of achieving disease prevention?

14 Marks

- 8) When making your annual Continuing Professional Development (CPD) statement to the General Dental Council (GDC) what information will you be declaring?

3 Marks

- 9)
a) How is NHS UDA (National Health Service Units of Dental Activity) dental treatment banded?

(1 Mark)

- b) Which treatments are covered in Band 3?

(6 Marks)

Total 7 Marks

Please turn the page

Queens Dental Sciences Centre
BSc (Hons) Dental Technology
Semester Two Examination 2024/2025
Oral Anatomy and Physiology and Basic Dental Appliance Design
Module No. DNT4102

10) Wound healing.

- a) Which systemic factors do you consider essential for wound healing and why?

(4 Marks)

- b) Which local factors do you consider are required for wound healing and why?

(6 Marks)

Total 10 Marks

11) Dental calculus forms both supra and sub gingivally.
True or false?

1 Mark

Please turn the page

Queens Dental Sciences Centre
BSc (Hons) Dental Technology
Semester Two Examination 2024/2025
Oral Anatomy and Physiology and Basic Dental Appliance Design
Module No. DNT4102

12)

a) What is the purpose of dental imaging?

(5 Marks)

b) Will a periapical radiograph identify alveolar bone loss? Explain your answer.

(2 Marks)

c) Distinguish between the radiographic terms radiopaque and radiolucent.

(6 Marks)

d) From the radiograph below name which features are identified as being radiolucent and which are identified as being radiopaque?



Europe PMC

(5 Marks)

Total 18 Marks

Please turn the page

Queens Dental Sciences Centre
BSc (Hons) Dental Technology
Semester Two Examination 2024/2025
Oral Anatomy and Physiology and Basic Dental Appliance Design
Module No. DNT4102

13)

a) Name 3 of the main signs that could indicate oral cancer.

(3 Marks)

b) Name 2 of the most common sites of oral cancer.

(2 Marks)

c) An obturator is an appliance that can be prescribed post-surgery for a patient with oral cancer. What does this appliance achieve?

(5 Marks)

Total 10 Marks

END OF QUESTIONS