

2021

National Dental Specialty Examination (NDSE) Protocol

Revised April 2021



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General Information

Check-in

Prior to the examination, read [Prometric's test centre policies](#) including arrival and check in procedures. These procedures may change at any time. It is your responsibility to know the test centre policies prior to your examination. If you do not comply with Prometric's policies, you may be refused access to the test centre.

During check-in at the Prometric test centre, you must show current government issued photo identification. Acceptable forms of government issued photo identification are:

driver's license,

passport, or

provincial photo identification card.

The ID must be in English or French.

Photo identification must show your name exactly as it appears in your online profile and must not be expired. If the photo identification does not have an expiry date, it must have been issued within the last 10 years.

If you do not provide government issued photo identification you will not be admitted.

During check-in, you will be scanned with a metal detector wand, fingerprinted, required to raise your pant legs above your ankles, empty and turn all pockets inside-out, and raise shirt sleeves above your wrists prior to entry into the test room.

Prometric staff will inspect eyeglasses, jewelry, and other accessories. These inspections will occur each time you enter the testing room.

You are advised to refrain from wearing jewelry besides wedding rings. Any other jewelry including ornate hair accessories will need to be removed and placed in the locker provided.

You will be provided with scratch paper and a pencil. These items will be collected at the end of the examination.

Format

The National Dental Specialty Examination (NDSE) is a six-hour examination, delivered electronically, with one or more breaks. The number of questions and question values will vary depending on the specialty. Specifics for each dental specialty can be found in the corresponding parts of the protocol.

Content

The purpose of the NDSE is to test entry-level competencies required of specialists. The NDSE covers general specialty knowledge including basic sciences, clinical diagnosis, and treatment planning. The level of knowledge required is consistent with Commission on Dental Accreditation of Canada requirements in each of the specialties.

Reference Materials

Tooth Numbering System

The FDI two-digit tooth numbering system is used in all examinations.

FDI / UNIVERSAL NUMBERING SYSTEM

PERMANENT DENTITION

FDI	1.8	1.7	1.6	1.5	1.4	1.3	1.2	1.1	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	FDI
Universal	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Universal
Universal	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	Universal
FDI	4.8	4.7	4.6	4.5	4.4	4.3	4.2	4.1	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	FDI
	RIGHT								LEFT								

PRIMARY DENTITION

FDI	5.5	5.4	5.3	5.2	5.1	6.1	6.2	6.3	6.4	6.5	FDI
Universal	A	B	C	D	E	F	G	H	I	J	Universal
Universal	T	S	R	Q	P	O	N	M	L	K	Universal
FDI	8.5	8.4	8.3	8.2	8.1	7.1	7.2	7.3	7.4	7.5	FDI
	RIGHT					LEFT					

Regulations

Failure to comply with any regulation may result in an accusation of misconduct.

- You must be punctual for all sessions. If you arrive late for a session you may be denied entry to the examination.
- Cell phones are prohibited in the examination room.
- All watches are prohibited in the examination room.
- Devices with recording or transmitting and/or receiving abilities are prohibited in the examination room.
- Outerwear of any kind is not permitted in the examination room.
- You will be required to empty all pockets before entering or leaving the examination room.

You will be required to read and agree to a Confidentiality and Non-disclosure Agreement before you can begin the examination. If you do not agree, you will not be able to start the examination. NDEB examination content is confidential.

You can only use the washroom during the scheduled break.

You will not have access to your locker during a scheduled break.

You must stop writing when directed.

Due to public health orders, the NDEB may find it necessary to introduce new regulations or modify existing regulations for specific examination administrations. Any new or modified regulations will supersede regulations published in the protocol.

Misconduct

NDEB examination content is confidential. All questions are property of the NDEB. Unauthorized disclosure of examination questions is prohibited under copyright laws. You must maintain the confidentiality of all NDEB content. You cannot discuss your examination with others or communicate about questions or answers before, during or after an examination. You cannot attempt to recreate questions.

If at any time you are suspected of compromising the security of the examination, including not complying with the regulations, you will be subject to the NDEB's By-laws regarding misconduct. Additional information on [misconduct](#) can be found on the NDEB website.

Test Accommodations

Test accommodations are granted on an individual basis and are dependent on the nature and extent of the request, documentation provided, and requirements of the examination. Read the NDEB's policies and procedures for [Test Accommodations](#) on the NDEB website.

Compassionate Appeals

Compassionate appeals must be submitted in writing within seven days of the examination to info@ndeb-bned.ca.

Information regarding [compassionate appeals](#) can be found on the NDEB website and in the [NDEB By-laws](#).

Results

Results are normally released within 10 weeks of the examination. You will receive an email notification when your results are available in your online profile.

Results will be reported as a Pass/Fail. Those who receive less than 75 will also receive their test score.

Results will not be released by telephone, mail, or fax.

Passing Standard

You must obtain a minimum score of 75 to be successful on an NDEB examination.

Verification of Results

If you receive a failing grade, you have one month to request a verification of your result.

There are two options for verification of an NDSE score.

1. Rescore: A rescore is a verification of the calculation of the final grade. A rescore is unlikely to change your final grade as all failing results have already been re-calculated by NDEB staff.
2. Regrade: A regrade is a re-evaluation of your performance using the original grading rubric, by a different group of examiners.

Information regarding the [verification process](#) can be found on the NDEB website.

NDSE Dental Public Health

Content

The NDSE in dental public health evaluates your knowledge of dental public health principles and public health issues.

Blueprint

Canadian specialists in dental public health are required to have broad knowledge and skills in the seven domains. The following blueprint shows the content areas and approximate percentage of questions (cases, topics, computer-based data analysis, and policy analysis) in each domain.

Dental Public Health Blueprint	Approximate % of questions
Assess community oral health status, needs, and resources	10
Diagnose community oral health problems and identify the cause or strength of contributing factors	15
Assess policies, strategies, programs, services, and devices that affect oral health and the provision of oral health services	20
Plan activities or programs that would be worthwhile in improving oral health within the given ethical, legal, political, social, demographic, economic, and environmental context	15
Manage oral health programs	10
Assemble, synthesize, and communicate relevant, accurate and clear information that will enable individuals, families, communities, public and private health organizations, and government decision-makers to improve oral health	20
Conduct education on and research into community oral health problems and services to assure a diverse and competent public oral health workforce and advancement of the specialty.	10
Total	100%



Format

The examination will consist of three, two-hour parts of equal weight:

Part 1 will be a policy analysis of a dental public health topic. A series of long-answer questions will be provided to assess your ability to analyze information provided in a written document, and to write and defend appropriate options for oral health policies to address the problems identified in the document.

Part 2 will be a data analysis of dental epidemiologic data provided in a format similar to what would be collected using World Health Organization. (2013). *Oral health surveys: Basic methods* (5th ed.). An IBM SPSS® Statistics software data set will be provided on a PC laptop computer with a standard mouse. Data analysis skills will be assessed through a series of short- and long-answer questions.

Part 3 may consist of a mix of single and multiple answer multiple-choice questions, and short constructed response questions covering basic dental epidemiological principles and dental public health issues in Canada.

Policy Analysis

You will be required to write a policy analysis on a dental public health topic. The following template identifies what should be included in your policy analysis.

1. Provide a title for the policy analysis.
2. Describe the history, context, and scope of the problem.
3. List a minimum of 3 potential options. Briefly describe each option. State the advantages and disadvantages of each option.
4. Identify at least 2 stakeholder groups and their likely positions.
5. Recommend one policy option.
6. Briefly justify the recommended policy option. Explain why the other options are not recommended.
7. Discuss a monitoring and evaluation strategy if that policy option was implemented.
8. Provide a summary (2 sentences).



Data Analysis

Sample Case and Questions

You have been provided with a database containing epidemiologic examination records of 1000 seniors aged > 65 years. Your assignment is to determine if the prevalence and severity of root caries are independently affected by age and the smoking status of the senior. The age of the senior is obvious; the codes for the smoking status of the senior and the status of the teeth are shown below.

Senior's smoking status:

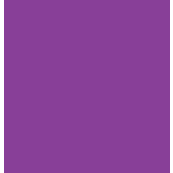
Never smoked	00
Smoked occasionally, less than one pack per week	01
Smoked 2 - 4 packs per week	02
Smoked one pack per day	03
Smoked more than 2 packs per day	04
Quit smoking more than 10 years ago	05
No response	09

Root status codes:

- 00 = Sound, no root decay ever or root not exposed
- 01 = Decayed root surface soft
- 02 = Decayed root surface hard
- 03 = Decayed root surface soft and extends beyond line angles
- 04 = Decayed root surface soft and extends beyond line angles
- 05 = Decayed root surface soft and extends beyond line angles
- 06 = Root surface filled
- 07 = Tooth missing due to caries
- 08 = Tooth lost due to trauma, or congenitally absent
- 09 = Sound abutment tooth or special crown (e.g., trauma anteriors)
- 10 = Tooth to be lost due to caries

What is the mean RCI for 65 and for 70 year old seniors? **2 points**

Mean RCI for 65 year old seniors	
Mean RCI for 70 year old seniors	



What is an appropriate statistical test and the P-value of that test to determine if the difference in means is significant at the 95% confidence level? **2 points**

Name of test	
P-value =	

Multiple-choice Questions

Single correct answer

Some questions have one correct answer, indicated by the direction (Select **ONE** correct answer). Select the answer that is most likely to be correct.

Sample Question 1

(Select **ONE** correct answer.) **1 point**

What is the most likely cause of cervical caries on the maxillary primary incisors in a 12month old child?

- Lack of systemic fluoride.
- Poorly formed enamel.
- Lack of calcium during pregnancy.
- Excessive bottle use.

One or more correct answers

For questions that have one or more correct answers, indicated by the direction "Select **ONE OR MORE** correct answers", select all answers that are correct. The minimum score for any question is zero ("0"). The maximum score for any question is one ("1"). Part marks will be awarded if some, but not all correct answers are selected, provided that no incorrect answer is selected. If an incorrect answer is selected, you will receive a zero ("0") score for the entire question.

Sample Question 2

Case synopsis

(Select **ONE OR MORE** correct answers.) **1 point**

What is/are the most appropriate intervention(s) for this patient?

- Oral cancer screening. (0.33)
- Alcohol consumption counselling. (0.33)
- Tobacco cessation counselling. (0.34)
- Recreational drug use counselling. (-1)
- Nutritional counselling. (-1)
- Mental health counselling. (-1)
- Safe sexual practices counselling. (-1)

Short- and Long-Answer Questions

Sample Question 3

Distinguish between a descriptive and an analytical study. Give one example of each type of study. **2 points**



Sample Question 4

Fluoridation has recently been challenged as a public health intervention by a small group of committed individuals who oppose the public health measure. What are 2 major objections raised by antifluoridationists? What is the scientific evidence that refutes each objection?

4 points

Objection	Evidence

NDSE Endodontics

Content

The NDSE in endodontics evaluates your knowledge and clinical competence in endodontics at the specialty level.

Blueprint

Canadian specialists in endodontics are required to have broad knowledge and skills in eleven domains. The blueprint below shows the domains and the approximate percentage of questions covered by each domain.

Endodontics Blueprint	Approximate % of questions
Biomedical sciences (includes anatomy, physiology, oral histology, oral pathology, oral histopathology, oral microbiology, immunology, biomaterials)	20
Non-surgical root canal therapy	20
Surgical root canal therapy	10
Diagnosis, treatment planning, and patient management	15
Pharmacology	8
Trauma	7
Anesthesia	6
Treatment of medically compromised patient	5
Radiology	5
Research methods	2
Miscellaneous topics (includes prosthodontics, periodontics, orthodontics, ethics, asepsis & sterilization, implantology)	2
Total	100%



Format

The examination will be administered in two, three-hour parts of equal weight. The examination consists of a mix of single and multiple answer multiple-choice questions, and short constructed response questions that assess knowledge and application, and case-based questions that assess diagnostic and clinical decision-making abilities.

Question & Answer Formats

The following samples illustrate question formats that may be found in the examination.

Multiple-choice Questions

Single correct answer

Some questions have one correct answer, indicated by the direction (Select **ONE** correct answer). Select the answer that is most likely to be correct.

Sample Question 1

(Select **ONE** correct answer.) **1 point**

Which antibiotic is CONTRAINDICATED for a patient with a history of a Type 1 anaphylactic reaction to penicillin?

- Azithromycin.
- Cephalexin.
- Clindamycin.
- Erythromycin.

One or more correct answers

For questions that have one or more correct answers, indicated by the direction "Select **ONE OR MORE** correct answers", select all answers that are correct. The minimum score for any question is zero ("0"). The maximum score for any question is one ("1"). Part marks will be awarded if some, but not all correct answers are selected, provided that no incorrect answer is selected. If an incorrect answer is selected, you will receive a zero ("0") score for the entire question.

Sample Question 2

Case synopsis

(Select **ONE OR MORE** correct answers.) **1 point**

In addition to palpation, which of the following is/are indicated to establish a diagnosis of the swelling for this patient?

- Pulp vitality testing. (-1)
- Periodontal probing. (-1)
- Tooth percussion. (-1)
- Radiographic examination. (0.5)
- Blood test analysis. (-1)
- Biopsy. (-1)
- Assessment of tooth mobility. (-1)
- Aspiration. (0.5)
- Allergy testing. (-1)

Short- and Long-Answer Questions

Sample Question 3

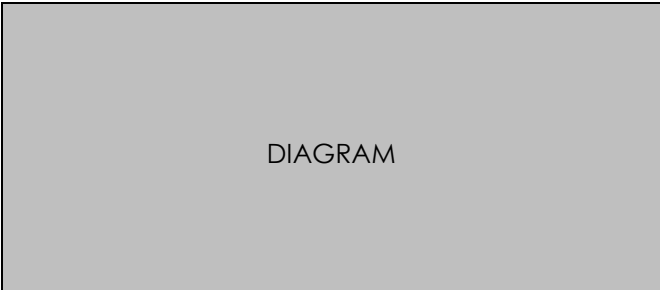
List 2 medications commonly used for the treatment of [disease]? **2 points**

1.
2.



Sample Question 4

Identify the 8 structures labeled on the following diagram. **8 points**



1.
2.
3.
4.
5.
6.
7.
8.



Sample Question 5

Describe the protocol for [technique]. **4 points**

Knowledge of Literature Questions

The questions test knowledge of the literature and deal mostly with results, conclusions and recommendations of various authors and associations.

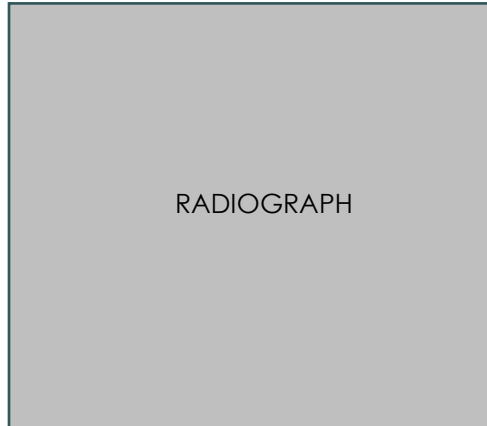
Sample Question 6

According to [Author/reference], what is the main clinical implication of [research]? **2 points**

Case-Based Questions

Sample Case 1

A healthy 15 year old patient presents complaining of spontaneous pain in the posterior right mandible. The pain is aggravated by cold.



Test	Tooth 4.6	Tooth 4.7
Percussion	WNL	WNL
Palpation	WNL	WNL
Periodontal Probing	323/323	323/323
Mobility	M1	M1
Cold Test	No response	+++ve (lingering)

What is the most appropriate treatment for tooth 4.7? **2 points**

The patient does not return for treatment. At the subsequent appointment 9 months later, an apical lesion is detected. What is now the most appropriate management for tooth 4.7?

2 points

NDSE Prosthodontics

Content

The NDSE in prosthodontics evaluates your knowledge and clinical competence in prosthodontics at the specialty level.

Blueprint

Canadian specialists in prosthodontics are required to have broad knowledge and skills in six domains. The blueprint below presents the six domains and the approximate percentage of questions covered by each domain.

Prosthodontics Blueprint	Approximate % of questions
Removable complete dental prosthesis	10
Removable partial dental prosthesis	10
Fixed dental prosthesis supported by natural teeth	20
Dental implant supported prosthesis	30
Maxillofacial prosthetics	5
General prosthetic topics (including basic sciences, medical management of dental patients, dental management of medically compromised patients, tooth wear, theories of occlusion, materials)	25
Total	100%

Format

The examination will be administered in two, three-hour parts of equal weight. Both Parts will include a mix of single and multiple answer multiple-choice questions, and short constructed response questions that assess general knowledge and clinical skills based on cases (diagnostic and clinical decision-making abilities).

Question and Answer Formats

The following samples illustrate question formats that may be found on the NDSE.

Multiple-choice Questions

Single correct answer

Some questions have one correct answer, indicated by the direction (Select **ONE** correct answer). Select the answer that is most likely to be correct.

Sample Question 1

(Select **ONE** correct answer.) **1 point**

Which antibiotic is CONTRAINDICATED for a patient with a history of a Type 1 anaphylactic reaction to penicillin?

- Azithromycin.
- Cephalexin.
- Clindamycin.
- Erythromycin.

One or more correct answers

For questions that have one or more correct answers, indicated by the direction "Select **ONE OR MORE** correct answers", select all answers that are correct. The minimum score for any question is zero ("0"). The maximum score for any question is one ("1"). Part marks will be awarded if some, but not all correct answers are selected, provided that no incorrect answer is selected. If an incorrect answer is selected, you will receive a zero ("0") score for the entire question.

Sample Question 2

Case synopsis

(Select **ONE OR MORE** correct answers.) **1 point**

In addition to palpation, which of the following is/are indicated to establish a diagnosis of the swelling for this patient?

- Pulp vitality testing. (-1)
- Periodontal probing. (-1)
- Tooth percussion. (-1)
- Radiographic examination. (0.5)
- Blood test analysis. (-1)
- Biopsy. (-1)
- Assessment of tooth mobility. (-1)
- Aspiration. (0.5)
- Allergy testing. (-1)

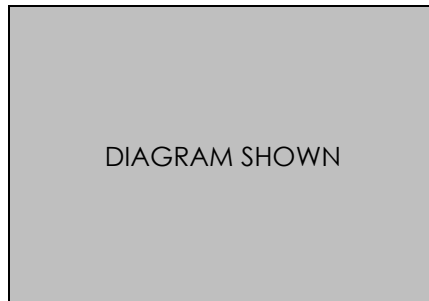
Short- and Long-Answer Questions

Sample Question 3

What is the probable impact on the occlusal anatomy of a single crown fabricated on a simple hinge articulator and inserted on tooth 4.6? **1 point**

Sample Question 4

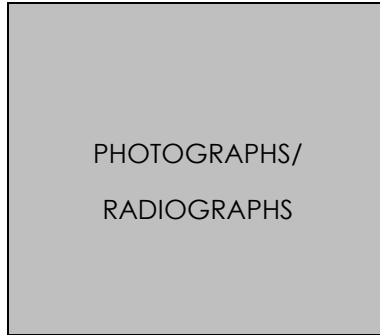
Identify the 4 structures labeled in the diagram. **4 points**



1.	
2.	
3.	
4.	

Sample Case 1

A 28 year old patient presents complaining that her maxillary central incisors are not at the same height. The implant and crown replacing tooth 2.1 were placed when the patient was 16 years old.



List 4 treatment options to address this problem. **4 points**

1.	
2.	
3.	
4.	

What are 3 complications to anticipate in the management of this problem? **3 points**

1.	
2.	
3.	

NDSE Pediatric Dentistry

Content

The NDSE in pediatric dentistry tests your knowledge and clinical competence in pediatric dentistry at the specialty level.

Blueprint

Canadian specialists in pediatric dentistry are required to have broad knowledge and skills in fourteen domains. The blueprint below presents the fourteen domains and the approximate percentage of questions covered by each domain.

Pediatric Blueprint	Approximate % of questions
Growth and development	8
Cariology, preventive dentistry, and anticipatory guidance	8
Restorative dentistry and oral rehabilitation	12
Child development & non-pharmacological behaviour guidance	8
Pharmacological behaviour guidance	8
Pharmacology	5
Oro-facial trauma	10
Medical management	10
Oral diagnosis, oral pathology, oral medicine, oral radiology	10
Periodontology	5
Pulp Therapy	10
Infection Control and occupational hazards	2
Biostatistics and epidemiology	2
Record keeping and informed consent	2
Total	100%



Format

The examination will be administered in two, three-hour parts of equal weight. The examination consists of a mix of single and multiple answer multiple-choice questions, and short constructed response questions that assess knowledge and application, and case-based questions that assess diagnostic and clinical decision-making abilities.

Question and Answer Formats

The following samples illustrate question formats that may be found on the NDSE.

Multiple-choice Questions

Single correct answer

Some questions have one correct answer, indicated by the direction (Select **ONE** correct answer). Select the answer that is most likely to be correct.

Sample Question 1

(Select **ONE** correct answer.) **1 point**

Which antibiotic is CONTRAINDICATED for a patient with a history of a Type 1 anaphylactic reaction to penicillin?

- Azithromycin.
- Cephalexin.
- Clindamycin.
- Erythromycin.

One or more correct answers

For questions that have one or more correct answers, indicated by the direction "Select **ONE OR MORE** correct answers", select all answers that are correct. The minimum score for any question is zero ("0"). The maximum score for any question is one ("1"). Part marks will be awarded if some, but not all correct answers are selected, provided that no incorrect answer is selected. If an incorrect answer is selected, you will receive a zero ("0") score for the entire question.

Sample Question 2

Case synopsis

(Select **ONE OR MORE** correct answers.) **1 point**

In addition to palpation, which of the following is/are indicated to establish a diagnosis of the swelling for this patient?

- Pulp vitality testing. (-1)
- Periodontal probing. (-1)
- Tooth percussion. (-1)
- Radiographic examination. (0.5)
- Blood test analysis. (-1)
- Biopsy. (-1)
- Assessment of tooth mobility. (-1)
- Aspiration. (0.5)
- Allergy testing. (-1)

Short- and Long-Answer Questions

Sample Question 3

During which stage of development does [structure] form? **1 point**



Sample Question 4

Describe the proper sterilization of [instrument/equipment]. **4 points**

Sample Question 5

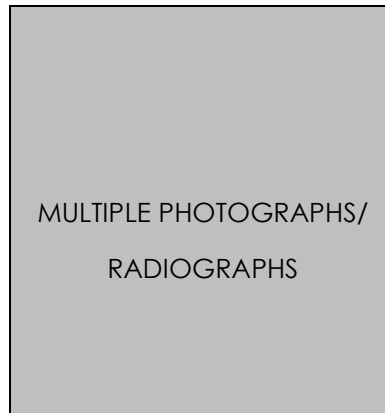
List 2 laboratory tests used to confirm a diagnosis of [disease]. For each test, indicate how the result will change in the presence of the disease.

Test Name	Test Result
1.	
2.	

Case-Based Questions


Sample Case 1

A 10 year old patient presents with a chief complaint of [*problem*].



What are the diagnoses for this patient? **1 point**

Discuss the emergency management of this patient. **2 points**



List 2 appropriate treatment options for tooth 5.4. **2 points**

1.
2.

Twelve month following treatment of tooth 5.4, the patient presents with [problem]. What is the most appropriate management? **1 point**

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NDSE Orthodontics

Content

The NDSE in orthodontics evaluates your knowledge and clinical competence in orthodontics at the specialty level.

Blueprint

Canadian specialists in orthodontics are required to have broad knowledge and skills in seven domains. The blueprint below indicates the content domains and the approximate percentage of questions in each domain.

Orthodontics Blueprint	Approximate % of questions
Anatomy, growth, and development	15
Physiology	5
Patient management	5
Statistics	5
Biology and physical science	10
Diagnosis	30
Treatment	30
Total	100%



Format

The examination will be administered in two, three-hour parts of equal weight. The examination consists of a mix of single and multiple answer multiple-choice questions, and short constructed response questions that assess general knowledge and application, and case-based questions that assess diagnostic and clinical decision-making abilities.

Question and Answer Formats

The following samples illustrate question formats that may be found on the NDSE.

Multiple-choice Questions

Single correct answer

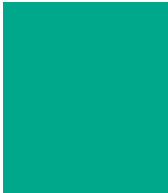
Some questions have one correct answer, indicated by the direction (Select **ONE** correct answer). Select the answer that is most likely to be correct.

Sample Question 1

(Select **ONE** correct answer.) **1 point**

Which antibiotic is CONTRAINDICATED for a patient with a history of a Type 1 anaphylactic reaction to penicillin?

- Azithromycin.
- Cephalexin.
- Clindamycin.
- Erythromycin.

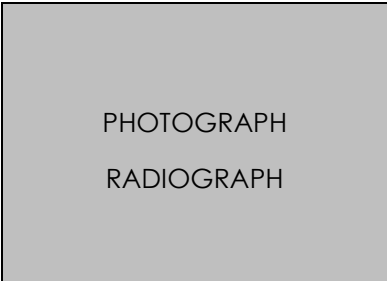


One or more correct answers

For questions that have one or more correct answers, indicated by the direction “Select **ONE OR MORE** correct answers”, select all answers that are correct. The minimum score for any question is zero (“0”). The maximum score for any question is one (“1”). Part marks will be awarded if some, but not all correct answers are selected, provided that no incorrect answer is selected. If an incorrect answer is selected, you will receive a zero (“0”) score for the entire question.

Sample Question 2

Case synopsis



(Select **ONE OR MORE** correct answers.) **1 point**

The patient has a

- lower anterior face height within normal limits. (-1)
- lower anterior face height shorter than normal. (-1)
- lower anterior face height longer than normal. (0.5)
- mandibular plane angle within normal limits. (-1)
- flat (low) mandibular plane angle. (-1)
- steep (high) mandibular plane angle. (0.5)

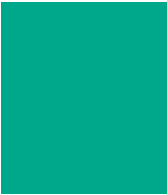
Short- and Long-Answer Questions

Sample Question 3

What are the 2 main components of glass ionomer cement used for orthodontic bands?

2 points

1.
2.



Sample Question 4

A 54 year old patient presents for a consultation. The review of the medical history shows that the patient takes [drug(s)].

For what conditions are these drugs being prescribed, and what are the mechanisms of action of these drugs? **4 points**

Condition	Mechanism of Action
Drug #1:	
Drug #2:	

Sample Question 5

List 4 bones that articulate with the [bone]. **4 points**

1.
2.
3.
4.

Sample Question 6

Match the following structures with one of the provided timelines for recovery following [treatment]. **3 points**

- A: [Timeline]
- B: [Timeline]
- C: [Timeline]

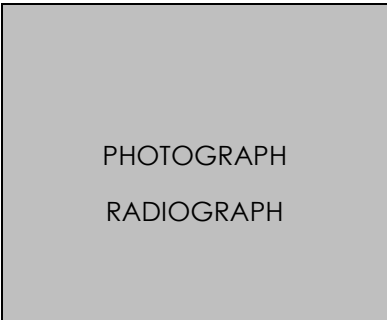


Structure	Timeline
[Structure]	
[Structure]	
[Structure]	

Case-Based Questions

Sample Case 1

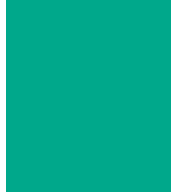
A 15 year old patient is currently undergoing orthodontic treatment to erupt tooth 1.4.



List 3 movements tooth 1.4 will display when it is tractioned into the arch with elastomeric thread.

3 points

1.
2.
3.



What 2 secondary effects will teeth 1.2 and 1.5 display as a result of tractioning the adjacent tooth 1.4 into the arch? **2 points**

1.
2.

NDSE Oral and Maxillofacial Surgery

Content

The NDSE in oral and maxillofacial surgery evaluates your knowledge and clinical competence in oral and maxillofacial surgery at the specialty level.

Blueprint

Canadian specialists in oral and maxillofacial surgery are required to have broad knowledge and skills in ten domains. The blueprint below indicates the content domains and approximate percentage of questions in each domain.

Oral and Maxillofacial Surgery Blueprint	Approximate % of questions
Temporomandibular disorders	5
Implants	10
Cleft lip and palate, and craniofacial syndromes	5
Dentoalveolar and preprosthetic surgery	10
Medicine	10
Pathology	10
Orthognathic surgery	10
Reconstructive surgery	10
Trauma	15
Anesthesia and sedation	15
Total	100%



Format

The examination will be administered in two, three-hour parts of equal weight. The examination consists of a mix of single and multiple answer multiple-choice questions, and short constructed response questions that assess general knowledge and application, and case-based questions that assess diagnostic and clinical decision-making ability.

Question and Answer Formats

The following samples illustrate question formats that may be found on the NDSE.

Multiple-choice Questions

Single correct answer

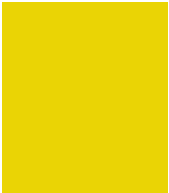
Some questions have one correct answer, indicated by the direction (Select **ONE** correct answer). Select the answer that is most likely to be correct.

Sample Question 1

(Select **ONE** correct answer.) **1 point**

Which antibiotic is CONTRAINDICATED for a patient with a history of a Type 1 anaphylactic reaction to penicillin?

- Azithromycin.
- Cephalexin.
- Clindamycin.
- Erythromycin.



One or more correct answers

For questions that have one or more correct answers, indicated by the direction "Select **ONE OR MORE** correct answers", select all answers that are correct. The minimum score for any question is zero ("0"). The maximum score for any question is one ("1"). Part marks will be awarded if some, but not all correct answers are selected, provided that no incorrect answer is selected. If an incorrect answer is selected, you will receive a zero ("0") score for the entire question.

Sample Question 2

Case synopsis

(Select **ONE OR MORE** correct answers.) **1 point**

In addition to palpation, which of the following is/are indicated to establish a diagnosis of the swelling for this patient?

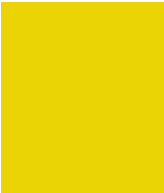
- Pulp vitality testing. (-1)
- Periodontal probing. (-1)
- Tooth percussion. (-1)
- Radiographic examination. (0.5)
- Blood test analysis. (-1)
- Biopsy. (-1)
- Assessment of tooth mobility. (-1)
- Aspiration. (0.5)
- Allergy testing. (-1)

Short- and Long-Answer Questions

Sample Question 3

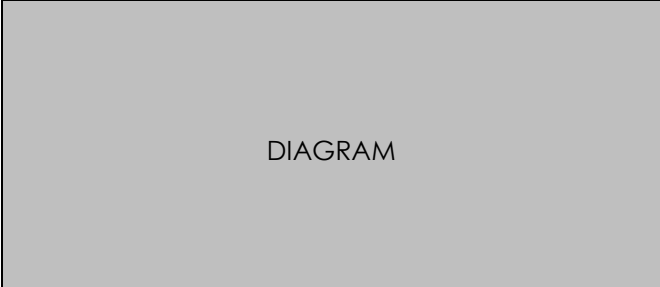
A 39 year old patient undergoes temporomandibular joint reconstruction with a costochondral rib graft. What is the most appropriate manoeuvre intra-operatively during a costochondral rib graft for evaluation of a pneumothorax and how is it performed? **2 points**

--



Sample Question 4

Identify the 4 structures labeled on the following diagram. **4 points**



1.
2.
3.
4.

Case-based Questions

Sample Case 1

A 54 year old patient presents for a new patient examination. A review of his medical history shows that he is taking [Drug #1], [Drug #2], [Drug #3], and [Drug#4].

What are the mechanisms of action of these drugs? **4 points**

Drug #1:
Drug #2:
Drug #3:
Drug #4:

What disease or diseases does this patient suffer from? **1 point**

--

What additional information is required to assess the relative risk of medical complications related to this(these) [disease(s)]? **2 points**

List 2 potential complications that this patient may experience. **2 points**

1.
2.



What would be the rating of the strategic physiologic reserve and risk of complications or emergencies related to the underlying disease(s) of this patient? **2 points**

Reserve:
Risk:

How is a treatment precipitating a crisis associated with the underlying disease(s)? **2 points**

NDSE Oral and Maxillofacial Radiology

Content

The NDSE in oral and maxillofacial radiology evaluates your knowledge and clinical competence in oral and maxillofacial radiology at the specialty level.

Blueprint

Canadian specialists in oral and maxillofacial radiology are required to have broad knowledge and skills in five domains. The blueprint below presents the domains and the approximate percentage of the questions covered by each domain.

	Oral and Maxillofacial Radiology	Approximate % of questions
Part 1	Interpretation of diagnostic imaging of the maxillofacial region	50
Part 2	Radiation sciences	12.5
	Imaging techniques	12.5
	Head and neck anatomy	12.5
	General head and neck pathology	12.5
Total		100%

Format

The examination will consist of two, three-hour parts of equal weight. Part 1 will consist of twelve sets of patient diagnostic images for you to interpret. Part 2 will consist of multiple-choice, short-answer, and essay type questions.

Question and Answer Formats-Part 1

Part 1 of the oral and maxillofacial radiology examination consists of 12 cases to interpret.

The images may be presented in the following formats:

CBCT volumes with Anatomage Invivo Dental Viewer

MDCT and MRI volumes with Synaptive Medical ClearCanvas Software

CBCT and MDCT MPA movie files.

PowerPoint files

JPEG files

For each of the 12 cases, you will be asked to:

Identify the diagnostic image(s) provided, including image modality(ies) and anatomical areas depicted. Please note that the entire case is the subject of the report, not the individual images.

Describe the pertinent findings on the imaging examination(s) in the format of a radiology report.

Provide a differential or definitive interpretation of the abnormality(ies).

Give the etiology/pathology/cause of disease/disorder.

Comment on the management of the case (where applicable, additional imaging, biopsy, bloodwork, or other diagnostic tests that may be indicated to provide further information for patient management).

Question and Answer Formats-Part 2

The following samples illustrate question formats that may be found on the NDSE.

Multiple-choice Questions

Single correct answer

Some questions have one correct answer, indicated by the direction (Select **ONE** correct answer). Select the answer that is most likely to be correct.

Sample Question 1

(Select **ONE** correct answer.) **1 point**

What is the required increase in exposure time when the target-skin distance is doubled?

- doubled.
- tripled.
- quadrupled.
- increased 10 times.

One or more correct answers

For questions that have one or more correct answers, indicated by the direction "Select **ONE OR MORE** correct answers", select all answers that are correct. The minimum score for any question is zero ("0"). The maximum score for any question is one ("1"). Part marks will be awarded if some, but not all correct answers are selected, provided that no incorrect answer is selected. If an incorrect answer is selected, you will receive a zero ("0") score for the entire question.

Sample Question 2

Case synopsis

(Select **ONE OR MORE** correct answers.) **1 point**

Which of the following imaging modalities are most appropriate to confirm the diagnosis?

- No test required. (-1)
- Periapical radiograph. (-1)
- Bite-wing radiograph. (-1)
- Occlusal radiograph. (-1)
- Panoramic radiograph. (0.5)
- Cone beam computed tomography (CBCT). (-1)
- Multidetector computed tomography (MDCT). (-1)
- Magnetic resonance imaging (MRI). (0.5)
- Ultrasonography. (-1)
- Scintigraphy. (-1)
- Radiograph with gutta-percha in sinus tract. (-1)
- Sialography. (-1)

Short-Answer Questions



Sample Question 3

In intraoral imaging, what are 3 outcomes of increasing the kilovoltage setting on the x-ray generator? **3 points**

1.
2.
3.

Essay Type Questions

Sample Question 4

Discuss the clinical, radiographic, and histopathologic features of diseases X and Y. **20 points**

NDSE Periodontics

Content

The NDSE in periodontics evaluates your knowledge and clinical competence in periodontics at the specialty level.

Blueprint

Canadian specialists in periodontics are required to have broad knowledge and skills in eleven domains. The blueprint below indicates the content domains and approximate percentage of questions in each domain.

Periodontics Blueprint	Approximate % of questions
Oral medicine and oral pathology	10
Anatomy, radiology, radiographic interpretation	10
Immunology and microbiology	10
Etiology, physiology, periopathology	10
Patient history and examination	5
Diagnosis	5
Prognosis	5
Treatment of periodontal disease (including evidence-based treatment)	20
Implantology	15
Medically compromised patients and medical emergencies	5
Anxiety, pain management, and pharmacology	5
Total	100%

Format

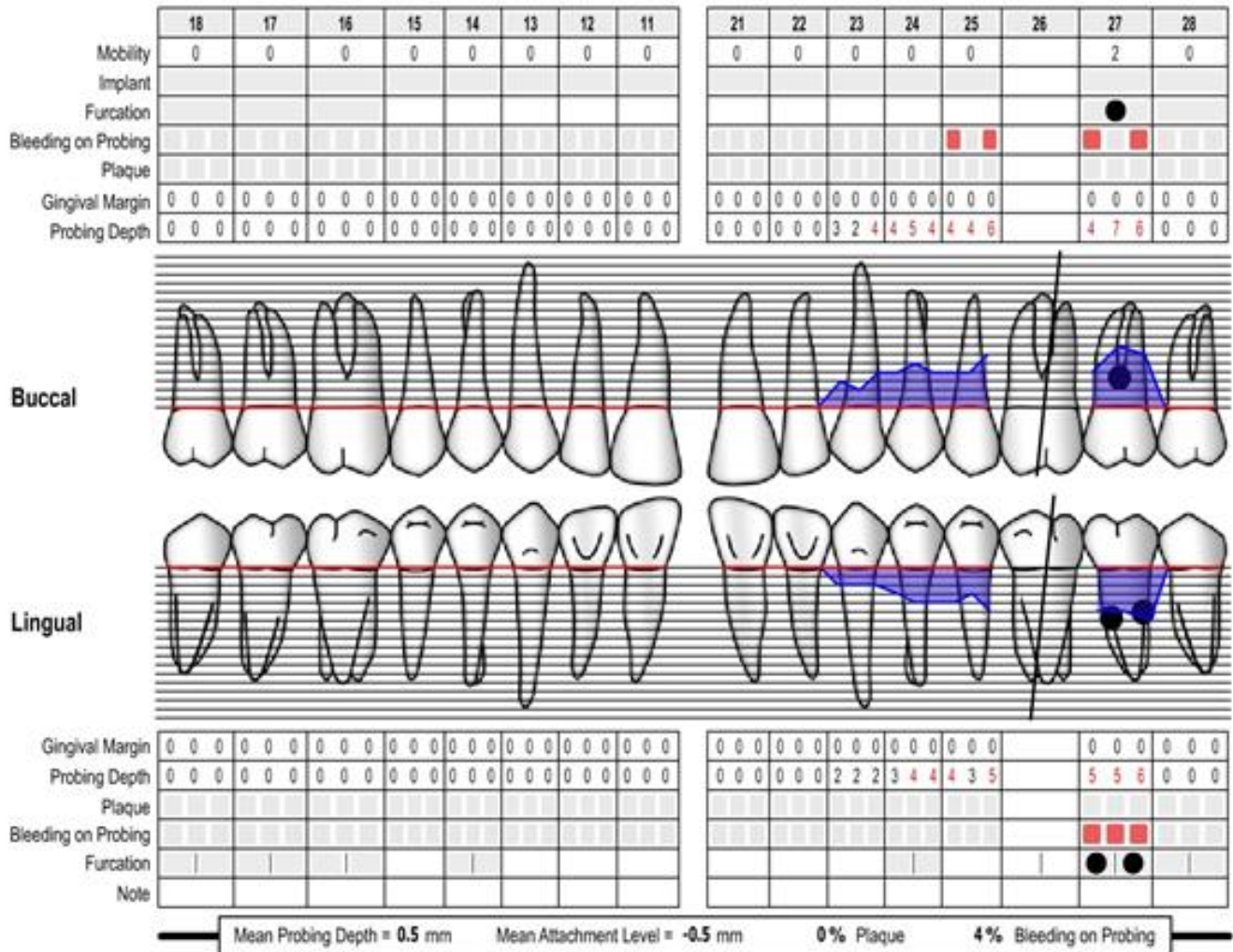
The examination will be administered in two, three-hour parts of equal weight. The examination consists of a mix of single and multiple answer multiple-choice questions, and short constructed response questions that assess general knowledge (and application of knowledge), and case-based questions that assess diagnostic and clinical decision-making ability.

Periodontal Charts

There are 2 formats for periodontal charts used in the examination. Charts for a group of teeth in a sextant or quadrant use the following chart.

V E S T I B U L A R	Furcation												
	Plaque	•	•	•	•	•							
	Recession												
	BOP	•	•	•	•	•	•	•	•				
	Probing	2	3	5	2	1	1	6	4	6	6	2	2
	Tooth	1.6	1.5	1.4	1.3	1.2							
L I N G U A L	BOP	•	•	•	•	•	•	•					
	Probing	3	5	6	3	2	2	5	6	6	6	5	3
	Recession												
	Plaque	•	•			•	•	•					
	Furcation	II											
	Mobility							1			1		

Charts for the entire mouth are created using <http://www.periodontalchart-online.com/uk/index.asp>. The following is a sample of a periodontal chart for a case using this website.





Question & Answer Formats

The following samples illustrate question formats that may be found on the NDSE.

Multiple-choice Questions

Single correct answer

Some questions have one correct answer, indicated by the direction (Select **ONE** correct answer). Select the answer that is most likely to be correct.

Sample Question 1

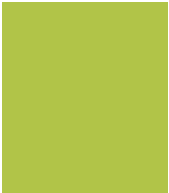
(Select **ONE** correct answer.) **1 point**

Which antibiotic is CONTRAINDICATED for a patient with a history of a Type 1 anaphylactic reaction to penicillin?

- Azithromycin.
- Cephalexin.
- Clindamycin.
- Erythromycin.

One or more correct answers

For questions that have one or more correct answers, indicated by the direction "Select **ONE OR MORE** correct answers", select all answers that are correct. The minimum score for any question is zero ("0"). The maximum score for any question is one ("1"). Part marks will be awarded if some, but not all correct answers are selected, provided that no incorrect answer is selected. If an incorrect answer is selected, you will receive a zero ("0") score for the entire question.



Sample Question 2

Case synopsis

(Select **ONE OR MORE** correct answers.) **1 point**

In addition to palpation, which of the following is/are indicated to establish a diagnosis of the swelling for this patient?

- Pulp vitality testing. (-1)
- Periodontal probing. (-1)
- Tooth percussion. (-1)
- Radiographic examination. (0.5)
- Blood test analysis. (-1)
- Biopsy. (-1)
- Assessment of tooth mobility. (-1)
- Aspiration. (0.5)
- Allergy testing. (-1)

Short- and Long-Answer Questions

Sample Question 3

What is the mechanism of action of [drug]? **1 point**

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Sample Question 4

Periodontal regeneration procedures are often enhanced by various graft or implant materials. List 4 of the basic categories of these grafts or implant materials and briefly describe their differences. **4 points**

1.
2.
3.
4.



Sample Question 5

List 3 pathogens associated with [disease] and 2 virulence factors for each pathogen. **9 points**

Pathogen	Virulence Factor
A.	1.
	2.
B.	1.
	2.
C.	1.
	2.

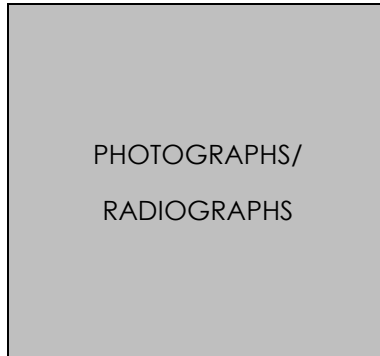
Sample Question 6

Define and describe the characteristics of the nonspecific plaque hypothesis and the specific plaque-hypothesis. **4 points**

Case-Based Questions

Sample Case 1

A 65 year old patient is referred for periodontal assessment and treatment regarding “deep pockets”. She is a smoker and her plaque control is poor.



Once the periodontal examination is complete, what is the most appropriate initial management for this patient? **1 point**

What are 4 advantages of the initial therapy if surgical therapy is planned for this patient?
4 points

1.
2.
3.
4.



What are 4 acceptable limitations of scaling and root planing? **4 points**

1.
2.
3.
4.

The patient quit smoking and underwent scaling and root planing. A re-evaluation is performed 6 months later and a significant improvement in oral hygiene, bleeding upon probing, and probing depth(s) is noted. What are 3 reasons for the reduction in the pocket depth measurements? **3 points**

1.
2.
3.

NDSE Oral Medicine and/or Oral Pathology

Content

The National Dental Specialty Examination (NDSE) in oral medicine and/or oral pathology evaluates your knowledge and clinical competence at the specialty level.

Blueprint: Oral medicine only

Canadian specialists in oral medicine are required to have broad knowledge and skills in five domains. The blueprint below indicates the content domains and approximate percentage of questions in each domain.

Oral Medicine Blueprint	Approximate % examination
Basic Medical Sciences <ul style="list-style-type: none"> • General and systemic pathology, orofacial anatomy and physiology • Pharmacology and therapeutics • Immunology • Microbiology • General medicine 	15
Developmental conditions Benign and malignant neoplasms Immunological conditions Infectious diseases Disorders of bones and joints Disorders of salivary glands Physical and chemical injuries Metabolic and hormonal disease Orofacial disorders arising from aging, systemic disease, and medical therapies	45
Temporomandibular disorders	10
Oral and dental management of patients with complex medical conditions	15
Orofacial pain and neurosensory disorders	15
Total	100%

Format: Oral medicine only

The oral medicine examination will be administered in two, three-hour parts of equal weight. Part 1 and 2 will consist of a mix of single and multiple answer multiple-choice questions, and short constructed response questions that assess general knowledge and application, diagnostic and clinical decision-making abilities.

Blueprint: Oral pathology only

Canadian specialists in oral pathology are required to have broad knowledge and skills in five domains. The blueprint below indicates the content domains and approximate percentage of questions in each domain.

Oral Pathology Blueprint	Approximate % examination
Microscopic examination	50
Basic medical sciences <ul style="list-style-type: none">• General and systemic pathology, orofacial anatomy and physiology• Pharmacology and therapeutics• Immunology• Microbiology• General medicine	15
Developmental conditions Immunological conditions Infectious diseases Disorders of bones and joints (including temporomandibular joint disorders) Disorders of salivary glands Physical and chemical injuries Metabolic and hormonal disease	22
Benign and malignant neoplasms	10
Laboratory pathology (including gross pathology, molecular, immunohistochemistry, tests, electron microscopy, laboratory management)	3
Total	100%



Format: Oral pathology only

The oral pathology examination will consist of two, three-hour parts of equal weight. Part 1, the microscopic evaluation, will involve the evaluation and diagnosis of tissue sections using *Leica Aperio ImageScope* pathology slide viewing software. You will be provided with a laptop on which you will find the software and case files.

In preparation for the examination, you will be provided access to a series of practice files that can be loaded using *Leica Aperio ImageScope* pathology slide viewings software. A link to the sample files will be sent to you through the secure messages feature of your NDEB profile once you have applied and identified oral medicine and/or oral pathology or oral pathology as your specialty.

You can download Leica Aperio ImageScope from <http://www2.leicabiosystems.com/l/48532/2019-01-03/7bs4rg>

Cytology specimens, electron micrographs, immunohistochemical and molecular histology tissue sections may be included.

Part 2 consists of short constructed response questions that assess general knowledge and application, diagnostic and clinical decision-making abilities.

Blueprint – Oral medicine and oral pathology

Canadian specialists in oral medicine and oral pathology are required to have broad knowledge and skills in five domains. The blueprint below indicates the content domains and approximate percentage of questions in each domain.

Oral Medicine and Oral Pathology Blueprint	Approximate % examination
Microscopic examination	50
Basic medical sciences <ul style="list-style-type: none"> • General and systemic pathology, orofacial anatomy and physiology • Pharmacology and therapeutics • Immunology • Microbiology • General medicine 	7
Developmental conditions Benign and malignant neoplasms Immunological conditions Infectious diseases Disorders of bones and joints (including temporomandibular joint disorders) Disorders of salivary glands Physical and chemical injuries Metabolic and hormonal disease	29
Oral and dental management of patients with complex medical conditions Orofacial pain and neurosensory disorders Orofacial disorders arising from aging, systemic disease, and medical therapies	11
Laboratory pathology (including gross pathology, molecular, immunohistochemistry, tests, electron microscopy, laboratory management)	3
Total	100%



Format: Oral medicine and oral pathology

The oral medicine and oral pathology examination will be administered in two, three-hour parts of equal weight. Part 1, the microscopic evaluation, will involve the evaluation and diagnosis of tissue sections using *Leica Aperio ImageScope* pathology slide viewing software. You will be provided with a laptop on which you will find the software and case files.

In preparation for the examination, you will be provided access to a series of practice files that can be loaded using *Leica Aperio ImageScope* pathology slide viewings software. A link to the sample files will be sent to you through the secure messages feature of your NDEB profile once you have applied and identified oral medicine and/or oral pathology or oral pathology as your specialty.

You can download *Leica Aperio ImageScope* from <http://www2.leicabiosystems.com/l/48532/2019-01-03/7bs4rg>

Cytology specimens, electron micrographs, immunohistochemical and molecular histology tissue sections may be included.

Part 2 consists of a mix of single and multiple answer multiple-choice questions, and short constructed response questions that assess general knowledge and application, diagnostic and clinical decision-making abilities.



Question & Answer Formats

The following samples illustrate question formats that may be found on the NDSE.

Multiple-choice Questions

Single correct answer

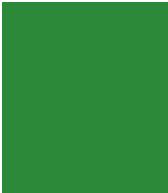
Some questions have one correct answer, indicated by the direction (Select **ONE** correct answer). Select the answer that is most likely to be correct.

Sample Question 1

(Select **ONE** correct answer.) **1 point**

Which antibiotic is CONTRAINDICATED for a patient with a history of a Type 1 anaphylactic reaction to penicillin?

- Azithromycin.
- Cephalexin.
- Clindamycin.
- Erythromycin.



One or more correct answers

For questions that have one or more correct answers, indicated by the direction “Select **ONE OR MORE** correct answers”, select all answers that are correct. The minimum score for any question is zero (“0”). The maximum score for any question is one (“1”). Part marks will be awarded if some, but not all correct answers are selected, provided that no incorrect answer is selected. If an incorrect answer is selected, you will receive a zero (“0”) score for the entire question.

Sample Question 2

Case synopsis

(Select **ONE OR MORE** correct answers.) **1 point**

In addition to palpation, which of the following is/are indicated to establish a diagnosis of the swelling for this patient?

- Pulp vitality testing. (-1)
- Periodontal probing. (-1)
- Tooth percussion. (-1)
- Radiographic examination. (0.5)
- Blood test analysis. (-1)
- Biopsy. (-1)
- Assessment of tooth mobility. (-1)
- Aspiration. (0.5)
- Allergy testing. (-1)

Short- and Long-Answer Questions

Sample Question 3

What are 2 medications commonly used for the treatment of [disease]? **2 points**

1.
2.



Sample Question 4

Use the table below to compare diseases A and B. **12 points**

	Disease A	Disease B
Etiology		
Pathogenesis		
Clinical features		
Diagnosis		
Management		
Prognosis		

Case-Based Vignettes

Sample Case 1

Case synopsis

What additional information should be obtained from this patient. **4 points**

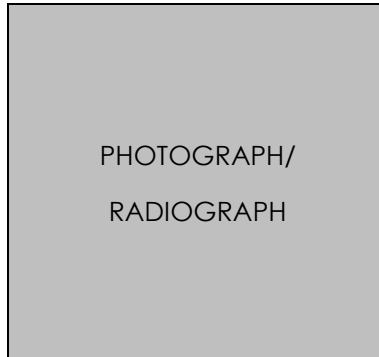


How would a final diagnosis be established? **3 points**

What is the most appropriate management for this patient? **4 points**

Sample Case 2

Case synopsis



Based on the history provided, list 3 entities to include in the differential diagnosis. **3 points**

1.
2.
3.

What is the most appropriate management? **1 point**

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