

# NATIONAL DENTAL HYGIENE CERTIFICATION EXAMINATION

## SAMPLE QUESTIONS (REV. MAR 2020)

The following questions are examples of types of questions likely to appear on the National Dental Hygiene Certification Board Examination. The answers and rationales are found on pages 8 to 10.

- Jennifer, 18 years old, presents for her continuing care appointment and indicates that right after her last appointment, she had a big cold sore on her lower lip, and the same happened after her last appointment. She asks, "Are these cold sores caused by something in this office?" How should the dental hygienist respond?
- a. "Cold sores are unlikely to be connected to dental hygiene therapy visits. We sterilize our instruments and use standard precautions."
  - b. "Cold sores are caused by a virus that is dormant in many people's bodies. Factors such as stress, sunlight, or slight irritation can reactivate it."
  - c. "Cold sores are an occasional occurrence after dental appointments. There are many theories explaining why this might happen, but none of them have been conclusively proven."
  - d. "Cold sores are caused by a bacterial infection. It is unlikely that it was reactivated during a visit to the office."
2. A mental nerve block will provide anesthesia to which area of the mouth?
    - a. Pulpal, buccal and lingual soft tissue anesthesia of the maxillary central, lateral and canine of one quadrant.
    - b. Buccal soft tissue anesthesia of the mandibular canine and premolars of one quadrant.
    - c. Buccal soft tissue anesthesia of the mandibular molars of one quadrant.
    - d. Pulpal, buccal and lingual soft tissue anesthesia of an entire mandibular quadrant.
  3. Adrian, 15 years old, presents for his continuing care appointment. He presents with moderate calculus deposits, inflamed gingiva and generalized 4 mm periodontal probing depths. Adrian states that he flosses regularly and brushes daily. Which one of the following actions by the dental hygienist is most appropriate?
    - a. Refer him to a periodontist.
    - b. Record a Plaque-Free score.
    - c. Perform a Gingival Bleeding Index.
    - d. Conduct a periodontal pathogens chairside test.
  4. Which one of the following chemotherapeutic agents offers the greatest substantivity for the control of dental biofilm and gingivitis?
    - a. Stannous fluoride.
    - b. Chlorhexidine gluconate.
    - c. Phenolic compounds.
    - d. Oxygenating agents.
  5. Mr. Foster, 80 years old, has severe Parkinson's disease and arrives to the dental hygiene office accompanied by his son. The periodontal assessment reveals generalized periodontitis stage II grade B and a periodontal abscess on tooth 46. His son requests that all the rest of his father's teeth be removed. Mr. Foster does not concur with this request and appears agitated. Which one of the following actions should the dental hygienist take?
    - a. Arrange a consultation for Mr. Foster with a periodontist.
    - b. Advise Mr. Foster and his son of all the options available.
    - c. Reassure Mr. Foster that his son has his best interests in mind.
    - d. Discuss the issue with Mr. Foster only.
  6. Which oral health recommendations should be emphasized with a 15-year-old client that presents with uncontrolled type 1 diabetes?
    - a. Dental biofilm control to prevent oral infections.
    - b. Fluoride therapy for dental caries control.
    - c. Reduction of sugar intake.
    - d. Application of pit and fissure sealants.
  7. What is the rationale for a dental hygienist to assess new research findings and modify her practice to reflect the current information?
    - a. To promote effective client care.
    - b. To prevent negligent practice.
    - c. To validate personal preferences.
    - d. To eliminate practitioner bias.
  8. When reviewing an article related to the efficacy of a desensitizing agent, the inclusion of which one of the following research variables would be most important to suggest that the findings are valid?
    - a. Sample size larger than 50.
    - b. Convenience sample.
    - c. Control group.
    - d. Documented informed consent.

9. Mr. Lang, 30 years old, contracted hepatitis B one year ago. What should the dental hygienist be aware of regarding infection control practices for the office?
  - a. Follow standard precautions for both instruments and equipment.
  - b. Perform a double disinfection/sterilization before the next client is treated.
  - c. Follow standard precautions for instruments but increase the contact time of the disinfectant on the equipment.
  - d. Perform intraoral interventions, sanitization and disinfection using double gloves.
10. David, 13 years old, is a new client. During the intraoral assessment, the dental hygienist observes that he presents with all his deciduous canines and molars. Which one of the following radiographic exposures should be taken?
  - a. Cephalometric radiograph.
  - b. A full-mouth series of radiographs.
  - c. A panoramic radiograph.
  - d. Occlusal radiographs.
11. Mr. Peterson, 35 years old, is rushing into the dental office 20 minutes late. His health history include asthma. Today's vital signs are blood pressure 143/89 mmHg, pulse 88 beats/min, respirations 20 breaths/min and laboured. How should the dental hygienist proceed?
  - a. Reschedule his appointment because he is 20 minutes late.
  - b. Perform non-invasive assessment procedures then recheck his vital signs.
  - c. Refer him to his physician for a consultation before starting any dental hygiene care.
  - d. Document the vital signs and proceed with the dental hygiene care plan.
12. Mr. Gagnon's dental hygiene care plan includes 4 appointments for periodontal debridement and oral self-care counseling. On his second visit, Mr. Gagnon presents with herpetic gingivostomatitis. What should the dental hygienist do?
  - a. Implement periodontal debridement in the area with the least number of lesions.
  - b. Have Mr. Gagnon rinse with chlorhexidine prior to periodontal debridement.
  - c. Defer dental hygiene care until the lesions have resolved.
  - d. Refer Mr. Gagnon to a physician for a consultation.
13. During the process of a chart audit an omission in the documentation is noted. How should the dental hygienist proceed?
  - a. Leave the chart as it is.
  - b. Amend the chart after the last entry.
  - c. Insert the omission at the point of occurrence.
  - d. Add a separate page explaining the omission.
14. Which one of the following actions should the dental hygienist take to evaluate the effectiveness of oral health education?
  - a. Start with a demonstration of current practices.
  - b. Assess the client's level knowledge and skills.
  - c. Summarize the important points from the previous session.
  - d. Ask the client how many times they flossed during the last week.
15. Mr. Ajwan, 70 years old, presents with an ill-fitting maxillary denture and reports experiencing increased difficulty chewing. Mr. Ajwan is at-risk for which one of the following conditions?
  - a. Lichen planus.
  - b. Oral candidiasis.
  - c. Pemphigus vulgaris.
  - d. Herpetic ulcerations.
16. Which one of the following factors would result in a dark radiograph?
  - a. Film used was beyond the expiration date.
  - b. Developing solution was too cold.
  - c. Developing time was not long enough.
  - d. Exposure time was too long.
17. Which one of the following statements is an example of a client-centered, measurable goal?
  - a. When flossing, the client will reduce by 50% the number of bleeding sites.
  - b. At the next dental hygiene appointment, the client reports less bleeding when flossing.
  - c. At the next continuing care appointment, the client will floss more often.
  - d. By the client's next dental hygiene appointment, no bleeding points will be noted.
18. Robert, 13 years old, presents with newly erupted second molars and restored occlusal surfaces on the first molars. Which one of the following actions would be most appropriate?
  - a. Apply pit and fissure sealants on occlusal surfaces of all second molars.
  - b. Apply chlorhexidine varnish on all occlusal surfaces.
  - c. Recommend an at-home application of fluoride using the tray technique.
  - d. Recommend fluoride supplements.

19. A dental hygienist has been asked to present an oral self-care seminar to students of a Grade 3 class in a remote rural community. The dental hygienist learns that not all the children have toothbrushes. Which of the following actions would be most effective to use?
- Provide toothbrushes and instruction for a classroom toothbrushing program.
  - Teach that rinsing with water after meals will help control the oral bacteria.
  - Distribute literature on oral diseases and toothbrushing techniques to the students to bring home.
  - Show a video on oral self-care instruction and leave it with the teacher for future reference.
20. Which one of the following intraoral findings is associated with post-transplant medication?
- Gingival overgrowth.
  - Hairy leukoplakia.
  - Desquamative gingivitis.
  - Root caries.
21. Manufacturer's instructions for the application of pit and fissure sealants indicate that the tooth surface must be thoroughly washed and dried after preconditioning with phosphoric acid. Which situation could result from failing to do this step adequately?
- Sealant retention will be compromised.
  - Polymerization will not take place.
  - Defective areas will be difficult to detect with an explorer.
  - Compressive strength will be diminished.
22. Which one of the following client conditions would CONTRAINDICATE the use of an at-home oral irrigator?
- Susceptibility to bacteremia.
  - Oral candidiasis.
  - Viral pneumonia.
  - Oral psoriasis.
23. Which one of the following manifestations is a potential side effect of whitening agents?
- Tooth demineralization.
  - Dentin hypersensitivity.
  - Soft tissue sloughing.
  - Gingival recession.
24. If a client tests positive to a Mantoux skin test and doesn't have any symptoms, what does that indicate?
- Client is infected with the tuberculosis bacillus but is not contagious to others.
  - Client was infected with the tuberculosis bacillus at some point in time and is no longer a carrier.
  - Client is infected with the tuberculosis bacillus and has active disease.
  - Client was infected with the tuberculosis bacillus at some point in time and he is now immuno-compromised.
25. A community health initiative is being created for young adults who smoke tobacco on a regular basis. Which one of the following topics would be most appropriate to include in the oral health presentation?
- The benefits of a stain-free dentition.
  - How to perform an intraoral self examination.
  - The detriments of smoking as the primary risk factor in periodontal disease.
  - The importance of regular dental hygiene care.
26. What is the function of levonordefrin in an anesthetic solution?
- To decrease the duration of anesthesia.
  - To increase the absorption level of the agent.
  - To increase the depth of anesthesia.
  - To decrease the antioxidant property of the agent.
27. How should the dental hygienist modify periodontal debridement procedures for a 14-year-old client that presents with cerebral palsy with spasticity in his muscles?
- Use only ultrasonic instrumentation.
  - Employ extraoral fulcrums.
  - Debride with a rubber biteblock.
  - Treat the client under general anesthesia.
28. Which one of the following preprocedural mouthrinses would best to decrease the client's oral microbial count?
- Chlorhexidine gluconate.
  - Sodium fluoride.
  - Phenolic compound.
  - Hydrogen peroxide.
29. During periodontal debridement with a curette, the instrument slips on the client's tooth and penetrates the dental hygienist fulcrum finger. There is a small blood spot forming inside the glove. After removing the glove, what should the dental hygienist do next?
- Immerse the finger in an antiseptic solution for 2 minutes.
  - Scrub the finger under running water with a clean hand brush.
  - Squeeze the finger to expel any contaminants.
  - Wash the entire hand with an antimicrobial soap and water.
30. Kelly notices that a dental hygiene colleague may be compromising client care by not thoroughly assessing clients. Which one of the following actions would be most appropriate for Kelly to take first?
- Report the activity to the employer.
  - Bring the issue to the attention of the professional association.
  - Inform the respective clients.
  - Discuss the current standards of practice with the colleague.

31. Kaleb, 23 years old, presents for his 6-month continuing care appointment. Recently his physician changed his anti-epileptic medication from phenytoin (Dilantin) to carbamazepine (Tegretol). His periodontal assessment includes a Plaque-Free score of 10%, generalized papillary inflammation with interproximal probing depths of 5 mm with no evidence of radiographic bone loss or gingival recession. How should the periodontal condition be documented in the client's dental chart?
- Generalized non-dental biofilm induced gingival disease influenced by a developmental disorder.
  - Generalized clinical gingival health on a reduced periodontium.
  - Generalized dental biofilm induced gingivitis exacerbated by medications.
  - Generalized periodontitis stage I grade A.
32. The dental hygienist is working with a community sports centre to promote oral health. The centre is in an urban fluoridated community. Which topic would be most appropriate to discuss?
- Integration of mouthguards clinics.
  - Relationship between dental caries and snacks.
  - Prevalence of concussions in sports.
  - Importance of a fluoride mouthrinse program.
33. Trevor, 12 years old, presents with bilateral linear discoloration on the facial surfaces of the maxillary central and lateral incisors. The health history indicates early childhood illness with frequent high fevers. What is the most likely cause of the discoloration?
- Interruption in the enamel calcification process.
  - Disturbance in the formation of the dentin matrix.
  - Incomplete fusion of the development lobes.
  - Ingestion of systemic fluoride.
34. What is the main advantage of using digital radiography?
- Lower costs.
  - Digital subtraction.
  - Reduced exposure to radiation.
  - Instant viewing of the image.
35. Mr. Gosling, 66 years old, presents for the evaluation of sextant 6, an area that originally had 5 to 6 mm periodontal probing depths and 68% bleeding points. Today's findings include 3 to 4 mm periodontal probing depths on teeth 44, 45, and 46. Tooth 47 has a 5 mm periodontal probing depth on the mesiolingual surface that bleeds upon probing. The root surface associated with the periodontal probing depth on tooth 47 is smooth and the dental biofilm deposit is light. What conclusion should the dental hygienist draw?
- Active periodontal disease exists in the 5 mm periodontal probing depth on tooth 47.
  - Extensive root debridement is required for the area around tooth 47.
  - Sextant 6 is stable and should be maintained with continuing care appointments every 3 to 4 months.
  - Selective polishing is required to complete the treatment of tooth 47.

**END OF INDEPENDENT QUESTIONS**

## CASE 1

### Client Profile:

Mrs. Henderson is 40 years old.

### Chief Concern:

She states, "My gums bleed a lot and I have a bad taste in my mouth."

### Dental History:

She has not had any dental care for 5 years. Teeth 38 and 48 are absent.

### Intraoral Assessment:

There is generalized marginal gingival redness, blunted papillae and rolled gingival margins. There is generalized bleeding on probing and the interdental clinical attachment levels are between 5 and 6 in all molar areas. Purulent exudate is localized around tooth 26. The client reports not performing any interdental cleaning.

### Questions 36 to 40 refer to this case.

36. What type of periodontal disease does Mrs. Henderson's intraoral assessment indicate?
- Localized endo-perio abscess.
  - Localized periodontitis stage II grade A.
  - Generalized necrotizing gingivitis.
  - Generalized periodontitis stage III grade B.
37. Which one of the following instruments would most accurately determine the location of subgingival calculus deposits in the area of the exudate?
- Double-ended curved explorer.
  - Ball-tipped periodontal probe.
  - Shepherd's hook explorer.
  - Universal curette.
38. When using curettes, which one of the following root debridement strokes should be used in the molar areas?
- Longer strokes with reduced pressure.
  - Shorter strokes with reduced pressure.
  - Longer strokes with no pressure change.
  - Shorter strokes with no pressure change.
39. Which one of the following oral self-care regimens should be discussed with Mrs. Henderson in order to reduce the inflammation in the area of tooth 26?
- Rubber tip stimulator with sodium bicarbonate paste.
  - Soft toothbrush with fluoride dentifrice.
  - Subgingival irrigation with chlorhexidine solution.
  - Interdental mini brush soaked in hydrogen peroxide.
40. Mrs. Henderson has been scheduled for a post-initial therapy evaluation. Which one of the following clinical observations would be the best indicator of improved periodontal health?
- Reduction of exudate.
  - Absence of visible dental biofilm.
  - Reduction of periodontal probing depths.
  - Absence of bleeding on probing.

**END OF CASE 1**

## CASE 2

### Client Profile:

Mr. Burns, 28 years old, presents for his 6-month continuing care appointment. He lives in a group home and is on social assistance.

### Chief concern:

Mr. Burns reports having some pain when chewing on his upper right side.

### Health History:

His health history indicates a C-8 spinal cord injury. His left arm is flaccid at his side, but he is able to operate his motorized wheelchair with his right hand.

### Dental History:

Mr Burns requires accommodations when performing his oral self care. His oral health care is provided at a fully equipped hospital dental clinic.

### Intraoral Assessment:

The gingival margins are red, with mild to moderate amount of soft deposits on all teeth. There is slight generalized bleeding on probing and the clinical attachment level is 1 to 2 mm at the interproximal sites of the maxillary molars.

### Questions 41 to 45 refer to this case.

41. What is the most important information for the dental hygienist to determine before initiating any action with Mr. Burns?
- The date of his spinal injury.
  - His ability to perform oral self care.
  - His preferred method of communication.
  - His access to financial assistance.
42. Which one of the following approaches is the most appropriate when preparing Mr. Burns for dental hygiene therapy?
- Allow him to transfer to the dental chair, using a sliding board with the assistance of the dental hygienist.
  - Transfer him to the dental chair.
  - Allow him to remain in his wheelchair and support his head against the operator's abdomen.
  - Allow him to remain comfortably in his wheelchair and use a portable head rest.
43. Which one of the following adverse reactions would present the most serious consequence to Mr. Burns?
- The development of decubitus ulcers.
  - Excessive salivation.
  - A drop in body temperature.
  - A sudden increase in blood pressure.
44. Which one of the following approaches should best enable Mr. Burns to change his behaviour and achieve optimal oral health?
- Tell him which procedures should work best to achieve optimum health.
  - Demonstrate in Mr. Burns' mouth the appropriate disease prevention techniques.
  - Assist him in determining his needs and agree on some mutual goals.
  - Encourage him to acquire aids that can help him achieve optimal oral health.
45. To assess pain in the area of teeth 15 to 17, a periapical radiograph is taken and is shown below. The result is a non diagnostically useful radiograph. The dental hygienist is asked to retake the film. What technical modification should be done to ensure the new image is diagnostically useful?



- Place the film in the middle of the palate.
- Position the cone at an angle closer to 25°.
- Ensure the film is not bent in the XCP holder.
- Align the position indicating device with the sensor.

**END OF CASE 2**

## CASE 3

### Client Profile:

Mrs. Darwin, 70 years old, presents for her initial dental hygiene care appointment. She is accompanied by her daughter. Mrs. Darwin resides in a long-term care facility. Her daughter is concerned about the status of her mother's oral health.

### Chief Concern:

Mrs. Darwin is pleasant and cooperative, but anxious about dental care.

### Health History:

Mrs. Darwin has atherosclerosis and slight dementia. She has high cholesterol and today's blood pressure reading is 135/85 mm Hg. She has been taking a prescribed antidepressant for the past 20 years and started taking a cholesterol lowering medication one year ago.

### Dental History:

Mrs. Darwin wears a complete maxillary denture that is ill fitting. Six months ago, she received a new mandibular partial denture to replace the molars.

### Intraoral Assessment:

The mid-palate has a 2 x 3 mm lesion that is red, raised, smooth and asymptomatic.

There is generalized materia alba and dental biofilm present on all teeth and dentures, with moderate, supragingival calculus in sextant 5. The gingival tissue is red, bulbous, and bleeds on probing. The generalized clinical attachment loss is 2 to 3 mm and there is generalized gingival recession of 2 - 3 mm on all facial surfaces.

### Questions 46 - 50 refer to this case.

46. Which one of the following conclusions can be made regarding the tissue condition on the palatal?
- It is most likely associated with oral psoriasis.
  - It is most likely due to a vitamin B deficiency.
  - It suggests the presence of blood dyscrasia.
  - It suggests chronic atrophic candidiasis.
47. Mrs. Darwin would be at risk for which one of the following conditions?
- Cicatricial pemphigoid.
  - Gingival overgrowth.
  - Palatal fibromatosis.
  - Root carious lesions.
48. At the initial appointment, Mrs. Darwin and her daughter agreed to the dental hygiene care plan. During the second appointment, the dental hygienist will be providing periodontal debridement to Mrs. Darwin. Which one of the following approaches is most important for the dental hygienist to take just before beginning therapy?
- Obtain Mrs. Darwin's informed consent before starting the planned services.
  - Consult with Mrs. Darwin's physician to determine any changes in medication.
  - Reconfirm the planned services with Mrs. Darwin and her daughter.
  - Inform Mrs. Darwin's daughter regarding the length of the appointment.
49. Which one of the following strategies should the dental hygienist use to address Mrs. Darwin's anxiety?
- Ensure the provision of pre-appointment oral sedation.
  - Use simple language and non-verbal communication.
  - Discuss the approach with Mrs. Darwin's physician.
  - Ask Mrs. Darwin's daughter how to manage her mother's anxiety.
50. The dental hygienist has recommended that Mrs. Darwin remove her dentures at night and brush them daily with a denture brush and dentifrice. How can the dental hygienist ensure that these recommendations are implemented?
- Tell Mrs. Darwin's daughter to verify periodically that her mother brushes her dentures.
  - Contact Mrs. Darwin's caregivers at the facility to discuss her personal denture care.
  - Demonstrate to Mrs. Darwin's daughter how to brush her mother's dentures.
  - Give Mrs. Darwin a pamphlet on denture care to bring to the long-term care facility.

**END OF CASE 3**

## Answer Key and Rationale

(The correct answer is indicated in parenthesis)

1. (b) "Cold sores" are caused by the herpes simplex virus. After primary contact with the virus, a latent infection is established and may be reactivated by factors such as stress, sunlight exposure, trauma, etc.  
*Blueprint 2016 - Competency 4.11*
2. (b) The mental nerve block will provide buccal soft tissue anesthesia anterior to the mental foramen (around the second premolar) to the midline and skin of lower lip and chin.  
*Blueprint 2016 - Competency 4.08*
3. (c) Based on the principle that healthy tissue does not bleed, testing for bleeding has become a significant procedure for evaluation prior to and following therapy.  
*Blueprint 2016 - Competency 5.09*
4. (b) Chlorhexidine-based agents has high antibacterial kill activity plus proven substantivity effect.  
*Blueprint 2016 - Competency 4.06*
5. (b) As a client advocate the dental hygienist should assist clients in obtaining the best possible care in the situation, with informed consent and based on the knowledge of all the alternatives.  
*Blueprint 2016 - Competency 6.01*
6. (a) Increased susceptibility to infections related to diabetes makes effective oral hygiene practices essential to maintaining oral health.  
*Blueprint 2016 - Competency 5.11*
7. (a) All professions are characterized by a body of knowledge that provides the foundation for practice. Research provides the scientific basis for this knowledge. Practice based on research is necessary for sound judgment and to deliver the most effective current care possible.  
*Blueprint 2016 - Competency 1.08*
8. (c) For a clinical study on the efficacy of an agent, a control group is important in order to measure it against a placebo. *Blueprint 2016 - Competency 4.01*
9. (a) Standard precautions should be used for all clients.  
*Blueprint 2016 - Competency 3.01*
10. (c) Panoramic radiographs are indicated for evaluating the growth and development of a client with mixed dentition.  
*Blueprint 2016 - Competency 5.12*
11. (b) The vital signs are slightly above normal which creates an increased risk of an asthma attack. Performing non-invasive assessment procedures and retaking the vitals allow some relaxing time. If the vitals do not change, the dental hygienist should consider postponing the appointment.  
*Blueprint 2016 - Competency 5.04*
12. (c) Due to the active and extensive infection, it would be most appropriate to change the care plan.  
*Blueprint 2016 - Competency 5.04*
13. (b) Amending the chart is appropriate both from a legal and a quality assurance standpoint.  
*Blueprint 2016 - Competency 1.05*
14. (b) By evaluating clients' knowledge, the dental hygienist would gain a better understanding of what they know. *Blueprint 2016 - Competency 5.17*
15. (b) Irritated tissue associated with ill-fitting dentures is a predisposing factor to opportunistic *candida* infections. *Blueprint 2016 - Competency 5.11*
16. (d) Overexposure to ionizing radiation will result in dark films. *Blueprint 2016 - Competency 4.12*
17. (a) This goal must be specific, measurable, agreed upon, realistic and time-based.  
*Blueprint 2016 - Competency 6.01*
18. (a) Overall caries susceptibility is an indication of use. Newly erupted teeth in these cases should be sealed immediately.  
*Blueprint 2016 - Competency 6.04*
19. (a) This course of action recognizes the cultural, or socioeconomic diversity and the values associated with health and disease. If resources aren't available either modify program or provide resource to ensure the success of the program.  
*Blueprint 2016 - Competency 7.18*
20. (a) Client who have undergone organ transplant will taking one or more medications that affect the mouth that include gingival overgrowth, poor healing, hemorrhage, infections, and more.  
*Blueprint 2016 - Competency 5.11*
21. (a) Rinsing of the phosphoric acid is important as residual acid interferes with the bonding of the sealant. Drying is critical because moisture interferes with retention of the sealant into the fissures with most products on the market.  
*Blueprint 2016 - Competency 3.03*
22. (a) Subgingival irrigation requires antibiotic premedication in clients susceptible to the effects of bacteremia. *Blueprint 2016 - Competency 3.02*
23. (b) Side effects of whitening agents can include dentin hypersensitivity.  
*Blueprint 2016 - Competency 7.13*



- 24.(a) A person who has inhaled the TB bacillus at some point in time and whose immune system has developed antibodies to the bacillus but has not developed symptoms will have a positive Mantoux test, but he is not contagious to others.  
*Blueprint 2016 - Competency 4.05*
- 25.(b) Oral self examination must be taught to all clients who use tobacco. *Blueprint 2016 - Competency 6.07*
- 26.(c) The addition levonordefrin in anesthetic solution increases the depth and the duration of the anesthesia and used as a vasoconstrictor. It is more stable than epinephrine. *Blueprint 2016 - Competency 4.06*
- 27.(c) Clients with cerebral palsy in the spasticity group may involuntarily close their mouth during procedures and accidentally bite the operator. A mouth prop would prevent this from occurring.  
*Blueprint 2016 - Competency 6.03*
- 28.(a) A 0.12% chlorhexidine solution provides a lower intraoral bacterial count for up to 60 minutes.  
*Blueprint 2016 - Competency 4.05*
- 29.(d) Post-exposure management of a percutaneous injury suggests that after removing the gloves, the next step is to wash the area thoroughly under running water and use an antimicrobial soap.  
*Blueprint 2016 - Competency 3.01*
- 30.(d) Talking with the dental hygienist while offering a solution is the best alternative and a good first step to a solution. *Blueprint 2016 - Competency 1.06*
- 31.(c) The periodontal assessment shows signs of pseudo-pockets with gingival overgrowth induced by the dental biofilm and the previous medication and no loss of attachment. The diagnosis is one of gingivitis induced by dental biofilm and exacerbated by the phenytoin.  
*Blueprint 2016 - Competency 5.19*
- 32.(a) Intraoral injury prevention is an important self-care issue when considering the characteristics of the target population. *Blueprint 2016 - Competency 6.07*
- 33.(a) The enamel calcification process can be affected by systemic disturbances including high fevers.  
*Blueprint 2016 - Competency 4.10*
- 34 (c) A major advantage of using digital radiography is the reduced client exposure to ionizing radiation by 60% to 80% when compared to conventional radiography using E-speed film.  
*Blueprint 2016 - Competency 4.12*
- 35.(a) Bleeding on probing in deep periodontal pockets indicates inflammation within the connective tissue. Disease stability can be monitored during periodontal maintenance based on bleeding on periodontal probing.  
*Blueprint 2016 - Competency 8.01*
- 36 (d) The age of this client and the presence of CAL of 5 to 6 mm with respective bone loss to all molars indicate a diagnosis of generalized periodontitis (more than 30% of the teeth), stage III (because of the CAL) grade B (since there are no modifiers – smoking or diabetes).  
*Blueprint 2016 - Competency 5.19*
- 37.(a) A curved explorer with a long shank has the preferred design to detect calculus in subgingival areas. *Blueprint 2016 - Competency 5.09*
- 38.(a) As the surface becomes smoother longer strokes and light pressure are used to remove root irregularities with minimal trauma.  
*Blueprint 2016 - Competency 7.08*
- 39.(c) Oral irrigation devices used with an antimicrobial agent like CHX (proven to be the most effective antimicrobial agent) will penetrate subgingivally up to 3 to 6 mm to help reduce the bacterial count.  
*Blueprint 2016 - Competency 7.11*
- 40.(d) In the state of periodontal health, there should not be any spontaneous bleeding during periodontal probing. *Blueprint 2016 - Competency 8.01*
- 41.(c) To show respect and to establish how to proceed, the method of communication must be established. Some compromised clients use spelling boards, computers and may communicate through writing, etc.  
*Blueprint 2016 - Competency 2.01*
42. (d) There is too much risk for injury when transferring. Also, motorized wheelchairs cannot be placed in a mechanical lift because of the battery pack.  
*Blueprint 2016 - Competency 6.03*
43. (d) A sudden increase in blood pressure would signal autonomic dysreflexia which is life threatening and can occur in people who have an injury above T-6.  
*Blueprint 2016 - Competency 6.02*
44. (c) Mutual participation involving the client setting realistic goals that suit the client's needs is the best way to ensure the client's optimal health.  
*Blueprint 2016 - Competency 7.18*
45. (d) The periapical film shows a cone cut meaning that the position indicating device/cone was too low and not covering the entire surface of the film/sensor.  
*Blueprint 2016 - Competency 7.02*
46. (d) The characteristics suggest a *candida albicans* infection which is often associated with ill-fitting, non-hygienic dentures.  
*Blueprint 2016 - Competency 5.07*

47. (d) The xerostomia associated with the anti-depressant medication places her at a greater risk for root caries.  
*Blueprint 2016 - Competency 5.11*
48. (c) Because the dental hygiene care plan was approved at the first appointment, and the client suffers from dementia and is anxious, it would be important to reconfirm the planned services with the client at each appointment as part of best legal practices.  
*Blueprint 2016 - Competency 1.02*
49. (b) Simple language and non-verbal communication can facilitate the management of clients with diminished cognitive capacity that also suffers from anxiety.  
*Blueprint 2016 - Competency 7.07*
50. (b) Given that the client lives in a resident care facility and is not able to care for her oral needs, it is important that the dental hygienist take a role in promoting the client's care with the facility.  
*Blueprint 2016 - Competency 7.18*