Name: _____

Final Examination - D573 *Periodontal Therapy and Treatment Planning I*, fall, 2008

Instructions: Select the single best answer for each question and enter response onto the computer bubble sheet, onto which you also enter **your name** and the **last four digits of your student number**. You must turn in both this examination copy and your computer answer sheet. You have 60 minutes to complete the examination. No questions will be answered by proctors during the examination.

1. You have a patient with desquamative gingival lesions where the epithelium clinically is easily rubbed off. On biopsy, the entire epithelium is seen in histologic analysis to be separated from the underlying basement membrane in affected areas of the gingiva. Which of the following is the most likely diagnosis?

   A. shingles
   B. non-erosive lichen planus
   →C. mucous membrane pemphigoid
   D. chronic hyperplastic candiasis

2. Which of the following is not associated with non-plaque-induced gingival disease of specific bacterial origin?

   →A. *Porphyromonas gingivalis*
   B. *Treponema pallidum*
   C. *Neisseria gonorrhea*
   D. *Mycobacterium tuberculosis*

3. The most common viral disease affecting human gingival tissues is caused by:

   A. herpes zoster
   →B. herpes simplex virus
   C. cytomegalovirus
   D. shingles

4. Which of the following is the most common inflammatory mucocutaneous disease appearing on the gingival?

   A. pemphigus vulgaris
   →B. lichen planus
   C. mucous membrane pemphigoid
   D. herpetic gingivostomatitis

5. Which of the following gingival lesion will not respond favorably to intermittent topical or systemic corticosteroid therapy?

   →A. herpetic gingivostomatitis
   B. mucous membrane pemphigoid
   C. lichen planus
   D. aphthous stomatitis

6. A 50 year old female presents to your dental clinic exhibiting multiple ulcers only her attached gingiva, each approximately one millimetre in diameter. The lesions are painful and she reports they occur regularly on her gingival tissues, and sometimes on her lips, but never on her tongue, palate or buccal mucosa. What is the most likely diagnosis?

   A. gingival/angular candidiasis
   B. primary herpes
   →C. secondary herpes
   D. aphthous ulcers

7. A 38 year old male presents to your dental clinic with a complaint of painful unilateral mouth lesions near his gingival tissues that initially form as vesicles prior to rupturing. The patient comments that the lesion areas felt "numb" shortly prior to vesicle formation. Which of the following medications is indicated in treating this patient?

   A. Mycolog 2 cream
   B. Diflucan rinse
   →C. systemic Valtrex
   D. amoxicillin capsules

8. When you clinically examine the patient described in question #7, you note on the right side of the his hard palate a series of small, painful vesicles located in a discrete pattern following spinal nerve distribution. Which of the following should be done?

   A. The patient should be reassured that the problem will resolve within 2 weeks regardless of treatment steps.
   →B. Immediate treatment is required as permanent nerve damage and long-term severe pain may result.
   C. The patient should be re-examined in 2 weeks without any systemic medication to see if the lesions persist.
   D. Antifungal mouth rinses should be started immediately with systemic steroids.

9. Which of the following concerning lichen planus on gingival tissues is <u>true</u>?

   →A. Lichen planus may lead to squamous cell carcinoma.
   B. Erosive lichen planus may be treated with antiviral rinses and/or systemic antiviral drugs if necessary.
   C. Removing defective restorations in close contact with oral soft tissues exhibiting isolated lesions of lichen planus will not impact and resolve the lesions.
   D. The gingiva is the most affected oral soft tissue surface affected by lichen planus.

10. Which of the following procedures can both be performed to increase the length of the clinical crown?

   →A. resective periodontal surgery and orthodontic tooth eruption
   B. distraction osteogenesis and orthodontic tooth eruption
   C. resective periodontal surgery and orthodontic intrusion
   D. guided tissue regeneration and gingivectomy

11. The minimum amount of crown lengthening needed from the apical extent of caries or tooth fracture to the bone crest is at least:

   A. 1 mm.
   B. 2 mm.
   →C. 4 mm.
   D. 5 mm.

12. The biologic width is estimated on average to be:

   A. 1 mm.
   →B. 2 mm.
   C. 3 mm.
   D. 4mm.

13. The physiologic dimension of the biologic width encompasses which of the following?

1. periodontal ligament fibers
2. supracrestal connective tissues
3. sulcular epithelium
4. junctional epithelium
5. interproximal alveolar bone

A. all of the above
B. # 1, #2 and #4 of the above only
➔C. #2 and # 4 of the above only
D. #1, #3, #4 and #5 of the above only

14. If no clinical crown is present on an endodontically-treated tooth to be treated with forced orthodontic eruption to increase its clinical crown length:

A. osseous resective surgery must be performed to further expose the tooth structure.
➔B. a wire hook is cemented into the root canal space.
C. an orthodontic bracket is attached as close as possible to the tooth's incisal edge.
D. the tooth should be extracted.

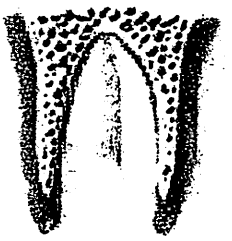
15. Which of the following statements is <u>correct</u> regarding crown lengthening procedures?

A. No retention is immediately necessary after orthodontic forced eruption.
B. Post-surgical coronal displacement of gingival tissues occurs more frequently in patients with a thin gingival tissue biotype.
C. Biologic width rarely re-establishes after crown lengthening surgery.
➔D. Temporary crowns should be considered in aesthetically critical areas to allow complete periodontal tissue healing and remodelling over a period of to 6 months.

16. Which of the following statements is <u>false</u> regarding crown lengthening procedures?

A. Gingivectomy should not be performed when alveolar bone has to be removed to provide space for the reestablishment of the biological width.
➔B. The junctional epithelium always migrates post-surgically coronal to root surfaces subjected to root planning performed during crown lengthening procedures.
C. The crown-to-root ratio may be adversely affected by resective osseous surgery seeking to increase the clinical crown length.
D. Same-day greater clinical crown length outcomes can be obtained with orthodontic forced eruption.

17. Which of the following would be <u>contraindicated</u> in treating this maxillary anterior tooth in a patient with a high-lip line?



Facial aspect Palatal aspect

A. Extraction with subsequent dental implant placement in the site.
➔B. Clinical crown lengthening with resective periodontal surgery.
C. Vertical forced tooth eruption without supracrestal fiberotomy, followed by extraction and dental implant placement
D. all of the above

18. Which of the following reduces the risk of breaking thin buccal bone during placement of a dental implant?

➔A. Threading the bone on the interior aspect of the osteotomy to reduce buccal forces during dental implant placement.
B. Using a stop on the implant placement device.
C. Applying polysporin onto the implant outer surface prior to implant placement.
D. all of the above

19. Upon secondary exposure of a dental implant, you find a Periotest reading of -8. What is your next step?

➔A. Proceed with placement of the abutment and restoration onto the dental implant.
B. Re-bury the dental implant underneath gingival soft tissues for another 3 months before re-evaluating.
C. Remove the dental implant.
D. none of the above

20. An implant-protected occlusion on a patient with heavy biting forces due to a bruxism habit involves:

A. making sure the dental implant crown does not have any ability to occlude the opposing dentition.
B. day-time use of a hard acrylic occlusal guard by the patient.
➔C. the establishment of only light occulsal contact by the dental implant crown during patient clenching.
D. none of the above.

21. Which of the following needs to be performed prior to a final impression for a dental implant restoration?

A. prophylactic removal of all dental plaque from dental implant surfaces.
➔B. a radiograph to verify seating of the abutment on the dental implant.
C. placement of a force direction indicator to better line up the impression line of draw.
D. none of the above

22. The most common area where use of a bone tap is indicated is:

➔A. the anterior mandible.
B. D4 bone
C. the maxillary premolar region.
D. none of the above

23. A Lindeman burr used in dental implant surgery is:

A. end-cutting only.
➔B. side-cutting only.
C. a starter drill.
D. none of the above

24. A stop (also known as a ring and/or a collar) on a dental implant drill:

A. prevent "chatter" of the drill in the osteotomy sites at low rotational speeds.
B. enables the drill to be extended longer when adjacent teeth impair advancement of the handpiece.
C. is used for crestal reduction of D1 bone.
➔D. none of the above

25. According to Dr. Nicolucci's lecture, 3-0 vicryl is the preferred suture material to use when closing a dental implant surgery because it:

➔A. helps avoid bacterial wicking into the surgical area.
B. can be left to resorb on its own after approximately 6 weeks.
C. is highly biocompatible with titanium dental implant surfaces.
D. none of the above

26. According to Dr. Nicolucci's lecture, "stretching" an osteotomy prior to dental implant placement:

A. extends its length beyond the length of the dental implant being placed to avoid pressure necrosis.
→B. laterally re-positions the dental implant site.
C. is also known as platform shifting or platform switching.
D. none of the above

27. According to the assigned textbook reading, which of the following are particularly prone to implant screw loosening?

A. screw-retained 3-unit bridges attached to externally hexed dental implants
B. screw-retained 3-unit bridges attached to internally hexed dental implants
→C. screw-retained single crowns attached to externally hexed dental implants
D. screw-retained single crowns attached to internally hexed dental implants

28. Patients with a bruxism habit are at higher risk for experiencing a dental implant fracture mechanical complication. Non-passive fit of prosthetic frameworks on dental implants are a possible cause of dental implant fracture.

→A. Both statements are true.
B. Both statements are false.
C. The first statement is true, with the second statement false.
D. The first statement is false, with the second statement true.

29. Which of the following features increase the risk of esthetic dental implant complications in the esthetic zone?

A. high smile line
B. thin periodontium
C. severe maxillary alveolar ridge resorption
→D. all of the above

30. Professional maintenance with patient compliance as a co-therapist are required for long-term success of dental implant therapy. Revision procedures on dental implants are a form of re-treatment.

→A. Both statements are true.
B. Both statements are false.
C. The first statement is true, with the second statement false.
D. The first statement is false, with the second statement true.

31. Peri-implantitis differs from peri-implant mucositis in that:

→A. peri-implantitis exhibits progressive crestal alveolar bone loss and peri-implant mucositis does not.
B. peri-implant mucositis can potentially affect the buccal mucosa and peri-implantitis does not.
C. peri-implantitis is caused by excessive occlusal forces and peri-implant mucositis is not.
D. all of the above

32. Dental implants placed into patients who are edentulous develop their bacterial populations primarily from:

→A. bacteria from adjacent soft tissues.
B. the nasal microbiota.
C. the patient's tonsillar crypts.
D. none of the above

33. Which of the following is <u>correct</u> concerning the initial pattern of bacterial colonization on dental implants?

→A. it is similar to that found on natural teeth
B. gram-negative anaerobic bacteria are prominent
C. gram-positive anaerobic bacteria are prominent
D. it is not affected by salivary pellicle deposition onto the dental implant surfaces

34. Peri-implant mucositis is best treated with:

A. replacement of the affected dental implant if the condition extends beyond 50% of the length of the implant.
B. removal of all excessive occlusal forces.
➔C. removal of all peri-implant dental plaque growth.
D. all of the above

35. Traumatic dental implant complications leading to dental implant loss occur more frequently than infectious dental implant complications. The combination of occlusal overloading, combined with ligature-induced peri-implant inflammation, significantly increases peri-implant angular bone loss on buccal and lingual surfaces in beagle dogs, as compared to either factor alone.

➔A. Both statements are true.
B. Both statements are false.
C. The first statement is true, with the second statement false.
D. The first statement is false, with the second statement true.

36. When peri-implant probing depths are > 5 mm with bleeding on probing:

A. high proportions of non-motile coccoid cells are subgingivally present.
➔B. significantly higher proportions of subgingival spirochtes are found.
C. occlusal overload conditions are likely present.
D. none of the above

37. Several human clinical studies have discovered an increased occurrence of peri-implantitis in patients with a history of periodontitis on their natural teeth. Anaerobic bacterial species are frequently in high numbers on dental implants suffering from early implant failures due to overwhelming infection shortly after their surgical placement.

A. Both statements are true.
B. Both statements are false.
➔C. The first statement is true, with the second statement false.
D. The first statement is false, with the second statement true.

38. In experimental ligature-induced peri-implantitis lesions in dogs treated with a combination of mechanical debridement and systemic amoxicillin plus metronidazole therapy:

A. the peri-implantitis lesions did not successfully resolve.
B. the peri-implantitis lesions resolved with new bone growth and re-osseointegration of the dental implants.
➔C. the peri-implantitis lesions resolved with new bone growth, but without re-osseointegration of the dental implants.
D. none of the above

39. Microbiological testing of dental implants is useful in:

A. evaluating the clinical status of healthy dental implants.
B. determining treatment procedures for traumatic dental implant complications.
➔C. the selection of antimicrobial therapies for infectious dental implant complications.
D. all of the above

40. In the study of antimicrobial treatment of peri-implantitis in humans over a 5-year time period, poor outcomes were particularly clustered in:

A. maxillary dental implants.
➔B. patients who were smokers.
C. males.
D. none of the above