LearnerName_____CompanyName_____

Assessor Name_____Date Submitted_____

Anderson Stockley
Accredited Training Ltd.

Level 3 Diploma in Dental Nursing - 5234

Unit 315 Management of oral health diseases and dental procedures

Below contain all areas that make up the 315 dental exam, please be aware of all the learning outcomes, assessment criteria and range, and ensure you revise thoroughly in all these areas.

The aim of this unit is to understand the aetiology and progression of oral disease, methods of prevention and the stages of general procedures completed during the management of oral disease.

Learning outcome: 1. know the types and causes of oral disease

Assessment criteria:

1.1 explain the causes of **oral disease**
1.2 describe the aetiology and progression of:
- a) dental caries
- b) periodontal disease

1.3 explain the development of plaque and its composition
1.4 identify signs and symptoms of inflammation

Range:

Oral disease
- a) caries
- b) gingivitis
- c) periodontal disease

Learning outcome: 2. understand prevention and management of oral diseases

Assessment criteria:

2.1 explain the impact of **social factors** and **diet** on general and oral health
2.2 explain methods for delivering oral health messages
2.3 explain **oral hygiene techniques** and **aids** used to prevent oral disease
2.4 explain methods of delivering fluoride both systemically and topically
2.5 give the advantages and disadvantages of delivering fluoride
2.6 identify the optimum levels of fluoride recommended for patient types.

Range:

Social factors:
- a) family background
- b) cultural
- c) environmental
- d) habits and lifestyle

Diet:

a) sugar – types – content and frequency
b) carbonated/non carbonated acidic drinks

Oral hygiene techniques:

a) tooth brushing
b) interdental cleaning

Aids:

a) disclosing tablets
b) mouthwashes
c) interdental aids
d) toothbrushes

Learning outcome: 3. know the procedures, equipment, instruments and materials for restorative treatment

Assessment criteria:

3.1 state the functions of **equipment**, instruments and materials used for:
- a) preparation, restoration and finishing cavities
- b) periodontal therapy

3.2 explain stages in cavity preparation for:
- a) permanent teeth
- b) deciduous teeth

3.3 describe the methods used for moisture control
3.4 explain the importance of moisture control
3.5 explain the advantages and disadvantages and hazards associated with:
- a) **restorative materials**
- b) lining materials
- c) different types of etchants
- d) different types of bonding agents
- e) curing lights
- f) amalgam

3.6 explain how to deal with a mercury spillage
3.7 explain the purpose of matrix systems
3.8 describe equipment used in the administration of **local anaesthesia.**

Range:

Equipment

a) hand pieces and burs
b) hand instruments

Restorative materials

a) composites
b) glass ionomer
c) amalgam
d) temporary restorative materials

Local anaesthesia

a) topical
b) intrapupal
c) intraoesous
d) intraligmnetory
e) infiltration
f) block

Learning outcome: 4. know the procedures, equipment, instruments and materials for fixed and removable prostheses

Assessment criteria:

4.1 explain **treatments** available for replacing missing teeth
4.2 explain the purpose of pre prosthetic treatment
4.3 describe the **removable prostheses**
4.4 explain **stages** in making complete and partial prostheses
4.5 explain the purpose of:
- a) permanent and temporary crowns
- b) bridges
- c) veneers

4.6 explain the **preparation** for:
- a) permanent and temporary crowns
- b) bridges
- c) veneers

4.7 state the equipment, instruments and materials used for:
- a) relines
- b) additions

4.8 explain disinfection and storage requirements for impression materials
4.9 explain post operative advice given to patients who have received a fixed or removable prostheses.

Range:

Treatments
- a) implants
- b) bridges
- c) dentures
- d) tissue conditioners

Removable prostheses
- a) full
- b) partial
- c) immediate
- d) obturator

Stages
- a) impressions
- b) bite
- c) try-in
- d) fit

Preparation
- a) select equipment/instruments/materials

Learner outcome: 5. know the process, equipment, instruments and materials for orthodontics

Assessment criteria:

5.1 describe classifications of malocclusion
5.2 explain the stages of orthodontic procedures
5.3 identify instruments and materials used during orthodontic procedures
5.4 explain the purpose of **orthodontic appliances**
5.5 explain pre and post operative **instructions** for orthodontic procedures.

Range:

Orthodontic appliances
- a) removable appliances, eg. Retainers/functional
- b) fixed appliances

Instructions

a) care and maintenance of removable and fixed appliances

Learner outcome: 6. know the process, equipment, instruments and materials for non surgical endodontic treatment

Assessment criteria:

6.1 explain the purpose and reasons for non-surgical endodontic treatment
6.2 describe the **types** of non-surgical endodontic treatment
6.3 explain the functions of equipment, instruments and materials at stages of non-surgical of non-surgical endodontic treatment
6.4 explain the potential risks and complications that may occur following non-surgical endodontic treatment
6.5 explain treatment options following non-surgical endodontic treatment.

Range:

Types

a) pulpotomy
b) pulpectomy
c) pulp capping

Learner outcome: 7. know the process, equipment, instruments and materials for extractions and minor oral surgery

Assessment criteria:

7.1 explain the reasons for extractions and minor oral surgery
7.2 explain the reasons for removing roots and unerupted teeth
7.3 explain the purpose of raising mucoperiosteal flaps and bone removal during oral surgery
7.4 describe the functions of **equipment, instruments** and **materials** required at each stage of extraction and minor oral surgery.

Range:

Equipment, Instruments

a) local anaesthetic syringes/needles
b) luxators and/or elevators e.g. Couplands, Warwick James, Cryers
c) extraction forceps
d) scalpel
e) periosteal elevator
f) cheek retractor
g) Spencer Wells, scissors
h) suture holder
i) surgical suction tip
j) surgical hand piece
k) burs

Materials

a) topical ansasthetic
b) local anaesthetic
c) irrigation syringe/needle/solution (eg. saline)
d) suture
e) haemostatic medicaments eg. gelatine sponges, oxidised cellulose
f) gauze pack

Revision Questions & Exercises

Please use Third Edition Diploma in Dental Nursing Level 3 book chapters:

5 – 305 offer information and support to individuals on the protection of their oral health
8 – 308 provide chairside support during the prevention and control of periodontal disease and caries, and the restoration of cavities
9 – 308 provide chairside support during the provision of fixed and removable prostheses
10 – 310 provide chairside support during non-surgical endodontic treatment
11 – 311 provide chairside support during the extraction of teeth and minor oral surgery
15 – 315 scientific principles in the management of oral health diseases and dental procedures

1. Explain the specific microorganism associated with the following conditions that can effect the oral cavity

- Acute Necrotising Ulcertaive Gingivitis (ANUG)
- Periodontal Disease
- Caries
- Oral Thrush

2. Complete the table below:

Condition	Cause	Symptoms	Treatment
Caries			
Irreversible Pulpitis			
Alveolar Abscess			
Gingivitis			
Periodontal Disease			
Acute Necrotising Ulcerative Gingivitis (ANUG)			
Acute Herpetic Gingivitis			
Acute Lateral Periodontal Abcess			
Pericoronitis			

3. What is gingivitis?

4. Explain the progression of periodontal disease.

5. What is the difference between a true pocket and a false pocket?

6. Explain the progression of caries.

7. Explain the formation of plaque, and what is it made up of?

8. What is demineralisation and remineralisation of the enamel?

9. What components is saliva made up of?

10. List the various methods for the detection of caries.

11. Describe the symptoms of gingivitis.

12. Complete the grid below:

Non-carious tooth surface loss processes	Causes and Description
Erosion	
Abrasion	
Attrition	
Abfraction	

13. What is the current recommended dose of fluoride for patients? And those of a high caries risk?

14. What are the two methods of fluoride, give examples.

15. What is fluorosis? How is it caused?

16. How do the following social factors effect oral health;

- Family Background
- Cultural
- Environmental
- Habits & Lifestyle

17. Complete the grid below:

General Health Conditions	Effects on Oral Health
Smoking & other tobacco habits	
Excessive alcohol consumption	
Eating disorders	
Diabetes	
Taking of certain medications	

18. Periodontal cleaning, complete the grid below:

Areas	Method	Instruments Required
Supra-Gingivial		
Sub-Gingivial		

19. Complete the grid below:

Restorative Material	When Used	Advantages	Disadvantages	Hazards Associated
Composite				
Amalgam				
Glass Ionomer				
Temporaries				
Lining Materials				
Etchants				
Bonding Agents				
Curing Light				

20. Explain how to deal with a large mercury spillage.

21. Research the different matrix systems for different materials.

22. Complete the grid below:

Class of Cavity	Description
Class I	
Class II	
Class III	
Class IV	
Class V	

23. Complete the grid:

Component in Local Anaesthetic Cartridges	Purpose
Anaesthetic	
Sterile water	
Buffering agents	
Preservative	
Vasoconstrictor	

24. What are the most commonly used local anaesthetics in dentistry?

25. Explain the following types of anaesthesia and list what equipment and materials are used for each.

- topical
- intrapupal
- intraoeseous
- intraligamnetory
- infiltration
- block

26. Place in numbers to represent the order of the following visits:

Acrylic Denture Visits	
	Fitting
	Bite
	Special Tray
	Primary Impressions
	Try-In
	Adjustment

Chrome Denture Visits	
	Fitting
	Bite
	Second Try -In
	Special Tray
	Primary Impressions
	Try-In
	Adjustment

27. Complete the table below:

Name of Impression Material	Disinfection Method	Storage Method	Type of Material
Alginate			
Silicone			
Polyether			
Agar			

28. Explain angles classification and how the patients jaw relationship presents for each class.

29. Research the 3 types of orthodontic appliances and the equipment needed for the fitting and adjusting of each.

30. Complete the table below:

Method for replacing missing teeth	Definition/Explanation
Dental Implant	
Conventional Bridge (Fixed – Fixed)	
Adhesive Bridge	
Cantilever Bridge	
Full Denture	
Partial Denture	
Immediate Denture	
Tissue Conditioner	

31. Explain the differences between direct and indirect pulp capping.

32. Explain what risks or complications could occur following non-surgical endodontic treatment

33. What treatment options are available following non-surgical endodontic treatment?

34 What reasons may exist for extracting teeth?

Extra resources:

Levisons multiple choice questions website:
http://bcs.wiley.com/he-bcs/Books?action=index&bcsId=8225&itemId=111850044X

Please use both interactive multiple choice questions and interactive extended multiple choice questions.
See chapters:

7 – microbiology and pathology
11 – oral diseases
13 – oral hygiene promotion and disease prevention
15 – restorative dentistry
16 – prosthodontics
17 – extractions

Mock Questions

1. Dental caries is:

a) inflammation of the tooth structure
b) bacterial infection of the mineralised tissue
c) irreversible pulpitis
d) viral infection of the mineralised tissue

2. The main organic acids formed by oral bacteria that causes tooth demineralisation include:

a) hydrochloric acid
b) lactic acid and citric acid
c) phosphoric acid and lactic acid
d) citric acid and acetic acid

3. The pH below which acid attack occurs in the mouth is:

a) pH7
b) pH 3.5
c) pH 5.5
d) pH 13

4. The following are examples of stagnation areas:

a) interproximal areas
b) lingual surfaces of molars
c) labial surfaces of all the upper teeth
d) incisal edges

5. Briault and sickle probes are used to:

a) detect occlusal caries
b) detect buccal pit caries
c) detect interproximal caries
d) detect occlusal caries in deciduous teeth

6. The following are examples of caries detection aids:

a) bitewing radiographs
b) composite curing light
c) mouth mirrors
d) all of the above

7. Carbohydrates known to cause caries include:

a) sucrose and glucose
b) aspartame and sucrose
c) fructose and sorbitol
d) lactose and sorbitol

8. The ideal concentration of fluoride added to water supplies as a preventative measure against caries is:

a) 10 parts per million
b) 1 part per million
c) 0.1 parts per million
d) 100 parts per million

9. The incorporation of fluoride into the tooth structure has the following effects:

a) increases the feeding rate of bacteria
b) reduces the enamel strength to acid attack
c) has no effect on the feeding rate of bacteria
d) increases the enamel strength to acid attack

10. Calculus formation occurs in the presence of:

a) plaque and caries
b) bacteria and carbohydrate
c) plaque and saliva
d) saliva and caries

11. All the of following are periodontal instruments, except:

a) a Blake's knife and handle
b) a jacquette scaler
c) a curette
d) a sickle probe

12. a CPITN probe is used by the dentist to:

a) measure periodontal pocket depth
b) feel the subgingival calculus
c) test for gingival bleeding
d) lance periodontal abcesses

13. Existing periodontal disease can be made worse by:

a) pregnancy
b) puberty
c) mouth breathing
d) all of the above

14. Periodontal disease can be avoided by:

a) not eating too many sweets
b) using fluoride toothpaste
c) an efficient oral hygiene regime
d) avoiding fizzy drinks

15. Sound oral hygiene advice to a patient should include:

a) to eat any sweets a few at a time
b) to brush teeth twice a day, every day
c) to always drink sugar-free fizzy drinks
d) to use woodsticks regularly

16. The usual instrument used to remove supragingival calculus is:

a) periodontal hoe
b) sickle scaler
c) jacquette scaler
d) curette

17. Children's teeth should be brushed from:

a) age 6 years
b) as soon as eruption begins
c) as soon as their first dental appointment
d) age 4 years

18. A Cushing scaler is used by the dentist to:

a) remove subgingival calculus
b) root plane the roots of teeth
c) remove plaque
d) remove interproximal calculus

19. The destruction of enamel by weak organic acids is called:

a) demineralisation
b) caries
c) remineralisation
d) etching

20. For a substance to be cariogenic, it must:

a) be acidic
b) contain non-milk extrinsic sugars
c) both of the above
d) neither if the above

21. Cavities need to be undercut when they are to be filled with:

a) amalgam
b) gold casting
c) composite
d) glass ionomer

22. Very deep caries can be carefully removed by hand using:

a) ball-ended burnishers
b) spoon excavators
c) flat plastic instrument
d) chisel

23. The dental material best suited to the restoration of a class 5 (V) cavity is:

a) gold inlay
b) light-cured composite
c) glass ionomer cement
d) amalgam

24. The main constituent of the alloy powder used when mixing amalgam is:

a) mercury
b) zinc
c) silver
d) copper

25. Which of the following dental materials has cariostatic properties:?

a) light-cured composites
b) glass ionomer cements
c) chemically cured composites
d) zinc polycarboxylate cement

26. All of the following dental materials can be used to construct indirect inlays, except:

a) porcelain
b) glass ionomer cements
c) light-cured composite
d) gold

27. Which of the following are plastic materials:

a) amalgam
b) composite
c) glass ionomer cement
d) all of the above

28. All of the following are examples of dental impression materials, except:

a) silicone
b) elastomer
c) zinc oxide/eugenol
d) calcium hydroxide

29. Composite filling materials contain:

a) powdered glass
b) polyacrylate and quartz
c) silver, quartz and polyacrylate
d) calcium hydroxide

30. Cavities should be conditioned before the placement of glass ionomer cements, using:

a) phosphoric acid
b) polyacrylate
c) cavity varnish
d) none of the above

31. Composite dental materials are mechanically adhesive after acid etching to:

a) dentine
b) they are not adhesive
c) enamel
d) both enamel and dentine

32. A shiny surface can be achieved on glass ionomer fillings by:

a) wiping with saliva
b) polishing with diamond burs
c) using a foil matrix
d) coating with varnish

33. Amongst the disadvantages of alginate are:

a) poor tear resistance
b) high dimensional stability
c) both of the above
d) none of the above

34. Zinc oxide/eugenol materials can be used for:

a) a sedative dressing
b) an impression material
c) a surgical dressing
d) all of the above

35. Silver has all of the following dental uses, except as:

a) a root filling material
b) a component of some glass ionomers
c) denture construction
d) a component of amalgam

36. Zinc phosphate cements can be used to permanently place crowns and bridges because they:

a) are not irritant to the pulp
b) are adhesive to dentine
c) set quickly
d) can be used on wet preparation

37. The aim of good spatulation when mixing dental materials is to:

a) incorporate most of the constituents
b) remove air bubbles
c) mix relatively evenly
d) all of the above

38. Acid etchant used for composite fillings contains:

a) 25% polyacrylic acid
b) 50% hydrogen peroxide
c) 33% phosphoric acid
d) 10% hydrochloric acid

39. The dental nurses most vital role during the placement of a filling is:

a) having the necessary radiographs available
b) adequate moisture control
c) ensuring the appointment does not overrun
d) mixing the correct amount of material

40. Which of the following are not suitable as linings beneath a composite filling:

a) zinc phosphate cement
b) glass ionomer cement
c) calcium hydroxide
d) all of the above

41. A Siqveland matrix band and holder is required for which procedure:

a) a class 1 (I) temporary restoration
b) a class 4 (IV) composite restoration
c) a class 2 (II) amalgam restoration
d) a class 5 (V) glass ionomer restoration

42. Beebee shears (scissors) are required when the following procedure is being carried out:

a) cutting celluloid matrix strips
b) shaping denture teeth
c) shaping temporary crowns
d) adjusting porcelain veneers

43. Glass ionomers should be mixed on:

a) a glass slab with a metal spatula
b) waxed paper pad with a metal spatula
c) neither of the above
d) both of the above

44. The bur usually used to cut a tooth for a crown preparation is:

a) slow-speed flat fissure bur
b) high-speed tapered diamond bur
c) high-speed pear-shaped bur
d) high-speed undercutting bur

45. Opposing arch impressions during crown preparation are usually taken in:

a) alginate
b) silicone putty
c) impression paste
d) opposing arch impressions are not required

46. Bonded crowns can be cemented with all of the following, except:

a) zinc phosphate cement
b) glass ionomer cement
c) light-cured composite cement
d) polycarboxylaye cement

47. A bridge which has retainers several teeth away from the pontic is called a:

a) fixed-fixed bridge
b) fixed-moveable bridge
c) spring cantilever bridge
d) simple cantilever bridge

48. Maryland and Rochette bridges are examples of those retained by:

a) luting glass ionomer cements
b) light-cured composites
c) zinc phosphate cements
d) orthodontic adhesives

49. Patients should be advised to clean beneath fixed-fixed-type bridges with:

a) dental woodsticks
b) dental floss or tape
c) ordinary toothbrush
d) superfloss

50. A fixed-moveable type bridge is necessary in some circumstances to allow:

a) slight movement at the bridge joint
b) the patient to remove it for cleaning
c) loose teeth not to be loosened further
d) there is no such type of bridge.

51. Which of the following should be recorded on a laboratory sheet after a bridge preparation:

a) the chosen shade of the bridge
b) the patients name
c) the notation of retainers and pontics
d) all of the above

52. A barbed broach is used in endodontics to:

a) smooth the canal walls
b) determine the canal length
c) remove the canal contents
d) locate the canal entrance

53. The inhalation or swallowing of endodontic instruments can be prevented by the use of:

a) parachute chains
b) rubber dam
c) floss tied around the instruments
d) all of the above

54. The successful obturation of the root canal is aided by the use of:

a) engine reamers
b) lateral condensers
c) a rubber dam
d) an apex locator

55. The vitality of a tooth can be tested by the use of all of the following, except:

a) radiographs
b) ethyl chloride
c) warmed gutta-percha
d) an electric pulp tester

56. All root-filling materials must have the following properties, except:

a) be radio-opaque
b) be biocompatible
c) be bactericidal
d) be non-degradable

57. The impression material often used for denture construction is:

a) silicone putty
b) alginate
c) elastomeric material
d) impression paste

58. Clasps fitted to an acrylic denture are usually constructed from:

a) precious alloy
b) stainless steel
c) chrome-colbalt
d) gold

59. When a denture requires relining, an impression is taken using:

a) alginate
b) impression paste
c) registration paste
d) an impression is not required

60. An upper full denture is retentive due to:

a) adhesives
b) suction pads
c) surface tension
d) muscle contractions

61. Common oral pathologies seen in denture wearers include all of the following, except:

a) hyperplasia
b) oral cancer
c) oral candida
d) mouth ulcers

62. Marginal leakage occurs:

a) around dentures
b) around the nasal mask used during inhalation-sedation sessions
c) around restorations
d) from amalgam capsules

63. A root filling placed from the crown end of a tooth is called:

a) retrograde
b) lateral condensation
c) orthograde
d) extirpation

64. Irreversible pulpitis can be treated by:

a) extraction
b) placing a bonded crown
c) placing a lined amalgam restoration
d) subgingival scaling

65. Angles classification of occlusion is based on:

a) the position of the first molars and the canines
b) the position of the first premolars
c) the position of the first premolars and molars
d) none of the above

66. Proclined upper incisors are usually a feature of:

a) class 1 malocclusion
b) class 3 malocclusion
c) class 2 division 1 malocclusion
d) class 2 division 2 malocclusion

67. The distance between the upper incisal edge and the lower labial surface of the central incisors is called:

a) retroclination
b) overbite
c) overjet
d) proclination

68. The overjet may be zero or even a negative figure in:

a) class 1 malocclusion
b) class 2 division 1 malocclusion
c) class 2 division 2 malocclusion
d) class 3 malocclusion

69. A crossbite exisits when:

a) the upper teeth bite inside the lower teeth
b) he incisors are retroclined
c) the upper teeth bite outside the lower teeth
d) the incisors meet tip to tip

70. A mesioden is:

a) a malformed premolar tooth
b) a malformed upper lateral incisor
c) an example of a supernumerary tooth
d) another name for the first molar teeth

71. A patient who sucks their thumb often has:

a) retroclined incisors
b) proclined incisors and an anterior open bite
c) a buccal crossbite
d) all of the above

72. Congenitally absent teeth are those which:

a) have been extracted for orthodontic reasons
b) have been extracted due to caries
c) erupt after their normal eruption dates
d) have been missing since birth

73. The usual retentive component of a removable appliance is:

a) a bracket
b) a canine retractor
c) an Adams crib
d) a finger spring

74. Good oral hygiene is important for those patients who:

a) are wearing upper and lower fixed appliances
b) are wearing any orthodontic appliance
c) are wearing a removable orthodontic appliance
d) are wearing a functional orthodontic appliance

75. Which of the following should the dental nurse set out for a patient attending with a removable orthodontic appliance:

a) a full conservation tray
b) Adams universal and spring-forming pliers
c) ligature cutters
d) all of the above

76. Functional appliances work by using:

a) archwires to move the teeth
b) muscular forces to move the teeth
c) springs to move the teeth
d) muscular forces to move the jaws

77. Molar bands used in fixed appliance therapy are cemented with:

a) glass ionomer cement
b) zinc phosphate cement
c) polycaroboxylate cement
d) all of the above

78. The following should be set out for an orthodontic retention-check appointment, escept:

a) pre and post operative study models
b) clinical records
c) the completed orthodontic claim form
d) radiographs

79. The following radiographs may be required before considering orthodontic treatment, except:

a) an orthopantomograph
b) a cephalometric radiograph
c) left and right bitewing radiographs
d) an anterior occlusal radiograph

80. Included in the instructions given to patients who have had a fixed appliance fitted are:

a) all sweets are to be eaten at night time
b) teeth must be brushed at least once a day
c) to expect some tooth discomfort initially
d) to eat sugar-free chewing gum only

81. Practice patients' pre-post operative study models must be:

a) given to the patient at the end of treatment
b) thrown away at the end of treatment
c) stored for atleast two years at the practice
d) stored for atleast six months by the patient

82. A natural space occurring between erupted teeth in either arch is called:

a) overjet
b) diastema
c) anterior open bite
d) overbite

83. When teeth are described as "proclined" they:

a) slope backwards
b) lie inside the upper arch
c) have a reverse overjet
d) protrude forwards