

**PAPER III: SUBJECT SPECIALISATION PAPER DENTAL SURGERY**

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**ROYAL CIVIL SERVICE COMMISSION  
BHUTAN CIVIL SERVICE EXAMINATION (BCSE) 2023  
EXAMINATION CATEGORY: TECHNICAL**

**PAPER III: SUBJECT SPECIALIZATION PAPER DENTAL SURGERY**

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<b>Date</b>	: October 7, 2023
<b>Total Marks</b>	: 100
<b>Examination Time</b>	: 150 minutes (2.5 hours)
<b>Reading Time</b>	: 15 Minutes (prior to examination time)

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**GENERAL INSTRUCTIONS:**

1. Write your Roll Number clearly and correctly on the Answer Booklet.
2. The first 15 minutes is being provided to check the number of pages of Question Paper, printing errors, clarify doubts and to read the instructions. You are NOT permitted to write during this time.
3. This paper consists of **TWO SECTIONS**, namely SECTION A and SECTION B:
  - **SECTION A** has two parts: Part I - 30 Multiple-Choice Questions  
Part II - 4 Short Answer Questions

All questions under SECTION A are COMPULSORY.

- **SECTION B** consists of two Case Studies. Choose only **ONE** case study and answer the questions under your choice.
4. All answers should be written with correct numbering of Section, Part and Question Number in the Answer Booklet provided to you. Note that any answer written without indicating any or correct Section, Part and Question Number will NOT be evaluated and no marks would be awarded.
  5. Begin each Section and Part in a fresh page of the Answer Booklet.
  6. You are not permitted to tear off any sheet(s) of the Answer Booklet as well as the Question Paper.
  7. Use of any other paper including paper for rough work is not permitted.
  8. You are required to hand over the Answer Booklet to the Invigilator before leaving the examination hall.
  9. This paper has **8** Printed pages in all, including this instruction page.

**BEST OF LUCK**

**SECTION A**

**Part I – Multiple Choice Questions [30 Marks]**

**Choose the Correct answer and write down the letter of the correct answer chosen in the Answer Booklet against the question number. E.g. 30 (C). Each question carries ONE Mark. Any double writing, smudgy answers or writing more than one choice shall not be evaluated.**

1. The x- ray of choice for detection of a dental abscess is
  - a) IOPAR
  - b) Bitewing x-ray
  - c) Occlusal x-ray
  - d) None of the above
  
2. If DMFT stands for decayed, missing, filled tooth, what does ‘ADA’ stand for
  - a) Asian Dental Association
  - b) Australian Dental Association
  - c) Austrian Dental Association
  - d) American Dental Association
  
3. One of the following drug is **NOT** the choice of drug for the management of anaphylaxis
  - a) Hydrocortisone
  - b) Promethazine
  - c) Adrenaline
  - d) Acetaminophen
  
4. Medicine prescribed to a patient allergic to penicillin for dental infection is:
  - a) Metronidazole
  - b) Amoxicillin
  - c) Macrolides
  - d) Aminoglycosides
  
5. Which of the following non-steroidal anti-inflammatory drug is available in our hospitals?
  - a) Naproxen
  - b) Ibuprofen
  - c) Paracetamol
  - d) Diclofenac Sodium,
  
6. An effective medicine in treating Oral Fungal infection is
  - a) Griseofulvin
  - b) Acyclovir
  - c) Miconazole oral gel 2%
  - d) Amoxicillin
  
7. The microorganism most commonly associated with Infective endocarditis is
  - a) Streptococcus
  - b) Staphylococcus
  - c) Lactobacilli
  - d) Bacteroids

8. Which of the following drug is SAFE to give during pregnancy:
  - a) Metronidazole
  - b) Amoxicillin
  - c) Ibuprofen
  - d) Carbamazepine
  
9. In patients with acute infections, the associated lymph nodes are
  - a) Enlarged and tender
  - b) Enlarged and fixed
  - c) Enlarged and rubbery
  - d) Enlarged and matted
  
10. The most common cyst of dental origin in the oral cavity is
  - a) Lateral cyst
  - b) Peri-apical cyst
  - c) Dentigerous cyst
  - d) Odontogenic kerotocyst.
  
11. Tooth tissue loss due to acid foods is properly termed as
  - a) Attrition
  - b) Abrasion
  - c) Caries
  - d) Erosion
  
12. Which medicine for topical application is recently added in EDL :
  - a) Fluocinolone Acetonide
  - b) Clobetasol Propionate
  - c) Triamcinolone Acetonide
  - d) Chlorhexidine Gel
  
13. Clinically the earliest evidence of caries is:
  - a) Sensitivity to sweets
  - b) Roughness on the surface of tooth
  - c) Brown area on tooth surface
  - d) Chalky white appearance on the tooth
  
14. Fluoride-richness of surface enamel:
  - a) Remains constant
  - b) Increases with age
  - c) Increases in increments
  - d) Decrease with time due to occlusal wear
  
15. A person who has undergone radiotherapy is more likely to have:
  - a) Cemental caries
  - b) Decrease in dental caries
  - c) Cervical caries
  - d) Enamel caries
  
16. The treatment of choice in fluoride toxicity is:
  - a) Calcium carbonate
  - b) Calcium gluconate
  - c) Calcium Oxalate
  - d) All of the above.

17. The thinnest epithelium of the oral cavity is found on the
- Buccal mucosa
  - Oral surface of the lip
  - Soft palate
  - Floor of the mouth
18. In blood chemistry, most of the magnesium in the blood is located in
- The albumins
  - The globulins
  - The red cells
  - The plasma
19. Which formed element in the human blood has the longest life span?
- White blood cells
  - Lymphocytes
  - Eosinophilic neutrophils
  - Red blood cells
20. A 5 year old boy has minute white specks on the buccal mucosa opposite to first molars. A bluish red ring surrounds these spots. There is a blotchy reddish rash behind his ears and on his face. This child is suffering from
- Herpangina
  - Scarlet fever
  - Mumps
  - Measles( koplicks spots)
21. Trigeminal neuralgia is characterized by
- Paralysis of face on the affected side
  - Unilateral pain with twitching of the face on the affected side
  - Extended episodes of excruciating sharp pain
  - Sharp excruciating pain unilaterally for short durations.
22. Angular cheilitis is **MOST** commonly seen in
- Xerostomia
  - HIV/AIDs
  - Vitamin C deficiency
  - Fungal infection
23. The salivary duct of mandibular salivary gland is:
- Stenson's duct
  - Wharton's duct
  - Bartholin's duct
  - Sub-mandibular duct
24. Denture stomatitis is seen in:
- Anemic patients
  - Old people
  - Immune-compromised people.
  - All of the above

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25. The most common benign tumor of dental origin in the mandible is:
- Adenocarcinoma
  - Ameloblastoma
  - Mucocele
  - Osteomyelitis
26. A fluctuant swelling on the inner buccal mucosa that is yellowish in color and does not often change its size may be likely:
- Ranula
  - Mucocele
  - Fibroma
  - Lipoma
27. Non carious wedge shaped tooth tissue loss along the buccal surface(s) of a tooth/teeth is scientifically termed as:
- Attrition
  - Abrasion
  - Abfraction
  - Erosion
28. Severe form of allergic reaction (Steven Johnson Syndrome (SJS)) to a drug (most common) involving oral mucosa and skin may be due to:
- Amoxicillin
  - Paracetamol
  - Carbamazepine
  - Ibuprofen
29. Which of the following dental cement component accelerates the formation of reparative dentin?
- Eugenol
  - Calcium hydroxide
  - Zinc Oxide
  - Silica
30. 1 cartridge of 2% lignocaine that we generally use contains:
- 2 ml and 40 mg of lignocaine
  - 1.8 ml and 36 mg of lignocaine
  - 1.5 ml and 30 mg of lignocaine
  - 1 ml and 20 mg of lignocaine

#### **PART II: Short Answer Questions [20 Marks]**

**Answer ALL four Questions. Each question carries 5 marks. Mark for each sub-question is indicated in the brackets.**

- What do you understand by “Frictional Keratosis”? State the etiologies? Explain the Sequelae of untreated morsicatio buccarum. (1, 2, 2)
- What is tooth Avulsion? Can it be managed in dental OPD, how do you manage it? (2, 3)
- What is Removable Orthodontics? Can it be practiced at our settings, if so how? What are the basic requirements? Name some removable orthodontic appliances? (2, 1, 1, 1)

4. What is fluoride? Does it have any role in caries prevention? What are the sources of fluoride in Bhutan? (1, 2 ,2)

**SECTION B: Case Study [50 Marks]**

**Choose either CASE I or CASE II from this Section. Each case study carries 50 Marks. Mark for each sub-question is indicated in the brackets.**

**CASE I**

A 70-year-old man comes to your clinic with following mouth (lip) conditions that started some 1year ago but flared up in last 3 months after using some topical cream prescribed by his treating doctor. He states that it started as blisters on the Lower lips only with pain and burning sensation. No intact blisters were found in the mouth/lip as it had already ruptured leaving behind only ulceration and crusting. He feels that he has oral cancer and he will not be able to live a normal life again. He does not have any significant medical history. He is a former army personnel with history of chewing tobacco and smoking occasionally. He is allergic to penicillin. Look at the image below carefully and answer the questions that follow:



1. What is this lesion/disease? Give a detailed history relevant to this disease? (3,7)
2. What are your differential diagnosis? justify (5,5)
3. What investigations and diagnostic tests will you do for this patient? Justify your answers? (5,5)
4. What is Nikolsky's sign? How do you do it? What is the Gold standard investigation to establish proper diagnosis in such a case? Have you heard of immune-fluorescent studies, what can you see in this study? How is DIF done? (2,2,2,2,2)
5. How will you manage this patient? (10)

**CASE II**

A 25-year-old woman, a corporate employee visits your clinic with a severe toothache. After taking her medical and dental history, you examined her tooth condition and advised that she should extract her tooth as it might give her repeated problems. You gave a pain killer injection (Diclofenac sodium 75mg IM stat) and recalled the patient in half an hour. The patient comes back bit relieved but wants extraction of the tooth as she does not want to go through the same experience. You try to convince the patient to come back later but she insists on extracting the tooth. The tooth troubling her is 38. Now, you are prepared for extraction but somehow, after little over a minute or two of giving her the required LAN block, your patient complains of feeling dizzy and faints. How will you proceed further? Answer the questions that follow:

1. What is this condition commonly called? (2)
2. What is the percentage of Lignocaine used for Dental LA and what is the maximum dose you can administer to your patient? (2)
3. What is the ratio of Adrenaline: Lignocaine commonly used in dental LA? (2)
4. What do you understand by “exodontia”, explain (2)
5. Was history taking complete? If not what else should have been taken additionally? (2)
6. How do you manage the above case of fainting? (5)
7. Will you extract the tooth? (2)
8. What sort of complications do you need to rule out in this patient immediately? (3)
9. What are the complications of extraction (10)
10. How do you go about managing a post extraction bleeding case that comes to you after about one/two hours of extraction? What prophylaxis would you give if your patient has mitral valve prosthesis? (5)
11. Classify different types of Mandibular 3<sup>rd</sup> molar impactions? (10)
12. What is alveolar osteitis? Is it manageable at our set up? Explain how do you manage a case of Post extraction dry socket? (5)

**TASHI DELEK**