

**ROYAL CIVIL SERVICE COMMISSION
BHUTAN CIVIL SERVICE EXAMINATION (BCSE) 2018
EXAMINATION CATEGORY: TECHNICAL**

PAPER III: SUBJECT SPECIALISATION PAPER FOR DENTISTRY

Date	: 7 October 2018
Total Marks	: 100
Writing Time	: 150 minutes (2.5 hours)
Reading Time	: 15 Minutes (prior to writing time)

GENERAL INSTRUCTIONS:

1. Write your Registration 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 & SECTION B:
 - **SECTION A** has two parts: Part I - 30 Multiple Choice Questions
Part II - 4 Short Answer QuestionsAll questions under SECTION A are COMPULSORY.
 - **SECTION B** consists of two Case Studies. Choose only **ONE** case study and answer the questions of your choice.
4. All answers should be written on the Answer Booklet provided to you. Candidates are not allowed to write anything on the question paper. If required, ask for additional Answer Booklet.
5. 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 the Section, Part and Question Number will NOT be evaluated and no marks will be awarded.
6. Begin each Section and Part in a fresh page of the Answer Booklet.
7. You are not permitted to tear off any sheet(s) of the Answer Booklet as well as the Question Paper.
8. Use of any other paper including paper for rough work is not permitted.
9. **You are required to hand over the Answer Booklet to the Invigilator before leaving the examination hall.**
10. This paper has **9 printed pages**, including this instruction page.

GOOD LUCK!!!

SECTION A

PART I: Multiple Choice Questions (30 marks)

Choose the correct answer and write down the letter of your chosen answer in the Answer Booklet against the question number e.g. 31 (d). Each question carries ONE mark. Any double writing, smudgy answers or writing more than one choice shall not be evaluated.

1. Deep veins of the face include
 - a) Facial
 - b) Posterior auricular
 - c) Maxillary
 - d) Retro-mandibular

2. If a patient walks into your chamber with an avulsed tooth in his hands and a bleeding mouth after RTA, what will you do?
 - a) Ask him to throw the tooth and start examining him.
 - b) Collect the tooth, examine other injuries and send him home with medicines.
 - c) Collect the tooth, examine the patient for other problems, fix the avulsed tooth and splint it.
 - d) Medicate and send him.

3. At what intrauterine age does tooth start to develop normally?
 - a) 6 weeks
 - b) 4 months
 - c) 6 months
 - d) 12 months

4. Development of body of mandible involves which of the following?
 - a) Reichert's cartilage
 - b) Meckel's cartilage
 - c) Intra-membranous bone development
 - d) Endochondrial ossification of Meckel's cartilage

5. Angular cheilitis is most commonly seen in
 - a) Riboflavin deficiency
 - b) Iron deficiency
 - c) Vitamin C deficiency
 - d) Fungal infection

6. One of the most effective medicines in treating oral candidiasis is
 - a) Griseofulvin
 - b) Penicillin
 - c) Nystatin
 - d) Amoxicillin

7. The microorganism most commonly associated with tooth caries is
 - a) Streptococcus salivaris
 - b) Streptococcus mitis
 - c) Streptococcus mutans
 - d) Streptococcus pyogenes

8. 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...
 - a) Herpangina
 - b) Scarlet fever
 - c) Mumps
 - d) Measles

9. The initial changes in dental caries usually starts with the loss of
 - a) Enamel prisms
 - b) Organic matrix
 - c) Inter-prismatic substance
 - d) Enamel sheath

10. In serial extraction procedure the first premolars are extracted
 - a) after the permanent canines have erupted fully.
 - b) before the second premolars erupt.
 - c) before permanent canines erupt.
 - d) as soon as they erupt into the oral cavity.

11. The most common cause of Root Canal treatment failure and persisting pain is
 - a) irritating irrigants & antiseptics passed beyond apical foramen.
 - b) failure to sterilize the canals.
 - c) poor condensation and improper filling of the canals.
 - d) None of the above.

12. Which one of the following is given to pregnant mothers to prevent neural tube defects and other congenital anomalies?
 - a) Calcium
 - b) Iron Tablets
 - c) Folic acid
 - d) B-12

13. Trigeminal neuralgia is characterized by
 - a) paralysis of face on the affected side.
 - b) unilateral pain with twitching of the face on the affected side.
 - c) extended episodes of excruciating sharp pain.
 - d) sharp excruciating pain unilaterally for short durations.

14. The first antibody synthesized by the human fetus is
- IgG
 - IgM
 - IgA
 - IgE
15. The salivary duct of submandibular salivary gland is
- Stenson's duct
 - Wharton's duct
 - Bartholin's duct
 - Sub-mandibular duct
16. Denture stomatitis is commonly seen in
- old people.
 - old people with neglected oral hygiene.
 - immuno-compromised people with poor oral and denture hygiene.
 - All of the above
17. The most common cause of oral submucous fibrosis in Bhutan is
- Alcohol
 - Doma and Alcohol
 - Doma and Tobacco
 - Betel and its products
18. In oral cancer patients, the associated lymph nodes are
- Enlarged and tender
 - Enlarged and fixed
 - Enlarged and rubbery
 - Enlarged and matted
19. The permanent teeth are initiated by
- Successional lamina
 - Dental lamina
 - Enamel organ
 - Elongated tooth buds
20. Local anesthesia works by
- Repolarization of the nerve
 - Depolarization of the nerves
 - Hyper polarization of the nerves
 - Non polarization of the nerves
21. The most common odontogenic cyst in the oral cavity is
- Lateral cyst
 - Peri-apical cyst
 - Dentigerous cyst
 - Odontogenic kerotocyst

22. Oozing of pus from the duct of a parotid gland is a sign of
- Sialolithiasis
 - Sialoadenitis
 - Mumps
 - All of the above
23. A fluctuant swelling on the lower lip that is mildly yellowish in colour can be
- Ranula
 - Mucocele
 - Fibroma
 - Lipoma
24. Chronic cheek biting is also termed as
- Morsicatio linguarum
 - Kerato-acanthosis
 - Irritation fibroma
 - Morsicatio buccarum
25. Non carious tooth tissue loss along the gingival margin is properly termed as
- Attrition
 - Abrasion
 - Abfraction
 - Erosion
26. The most commonly accepted theory of the mechanisms of dentinal sensitivity is
- Hydrodynamic theory
 - Direct innervation theory
 - Pulpal pressure theory
 - Odontoblastic receptor theory
27. If the acronym for HIV is human immune-deficiency virus, DMFT stands for
- Dental, Missing, Filled, Tooth
 - Decayed, Missing, First, Tooth
 - Decay Must Fill Today
 - Decayed, Missing, Filled, Tooth
28. Medicine frequently used to manage neuralgic pain is
- Paracetamol
 - Morphine
 - NSAIDs
 - Carbamazepine
29. An average human being has _____ of blood volume of the body weight.
- 5%
 - 6%
 - 8%
 - 7%

30. More severe form of allergic reaction to a drug involving oral mucosa and skin is presented as
- Erythema multiforme
 - Steven Johnson Syndrome
 - Excoriation
 - Mouth ulcers and neck swelling

PART II – Short Answer Questions (20 marks)

This part has 4 Short Answer Questions. Answer ALL the questions. Each question carries 5 marks.

1. What do you understand by “tooth decay”? State the etiologies of dental caries (common theories). Explain the Sequelae of untreated dental caries. (1+2+2)
2. What is tooth avulsion? Can it be managed in dental OPD, if so how do you manage it? What is the best medium to store an avulsed tooth? (1+3+1)
3. If a patient with his mouth condition as shown in the picture below walks into your chamber, how will you approach for management? (5)



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

SECTION B

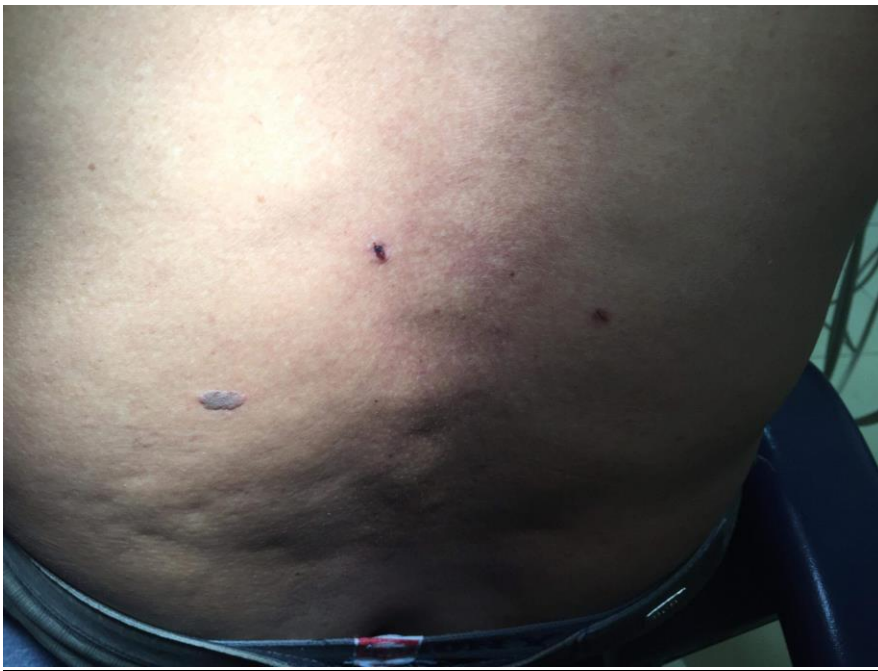
Case Study

Choose either Case I OR Case II from this section. Each case study carries 50 marks.

Case I

A 70 year old man comes to your clinic with following mouth and skin conditions that started suddenly some 10 days ago and increased progressively over the period. He states that it started as blisters and vesicles on the mouth and skin over the trunk, inner thighs and genitalia. No intact blisters were found in the mouth as it had already ruptured leaving behind only ulcerations. He feels that he has oral cancer and he will not be able to live a normal life again. He gives a history of hypertension and rheumatoid arthritis and has taken medicines like systemic steroid (prednisolone) and methotrexate for many years. He has stopped all the medicines since last 2 years (not on any medications now). Look at the images below carefully and answer the questions that follow:





1. What could be this lesion/disease? Give a detailed history taking in this patient as you think relevant? (3+7)
2. Give your differential diagnosis and justify them (5+5)
3. What investigations will you do for this patient? Give justifications for your investigations? (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? What can you see in immune-fluorescent studies? How is DIF done? (2+2+2+2+2)
5. Give your management protocol in this patient? (10).

Case II

A young adult woman came to your clinic for a wisdom tooth extraction. After taking her dental history, you examined her tooth condition and advised that she should extract her tooth as it might give her repeated problems later on. The patient after carefully listening to you agreed to undergo the extraction. Now, you are prepared for extraction but somehow, after little over 5 minutes of giving her the required Lignocaine Local Anaesthesia block, your patient became unresponsive and fainted on the dental chair.

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 of the patient taken completely? If not what else should have been taken additionally? (2)
6. How do you manage the above case of fainting? (5)
7. What sort of complications do you need to rule out in this patient immediately? (5)
8. What are the complications of extraction?
 - a) **Before** extraction (5)
 - b) **During** extraction (5)
 - c) **After** extraction (5)
9. How do you manage a post extraction bleeding case that happens after about one/two hours of extraction? What prophylaxis would you give if your patient has mitral valve prosthesis? (5)
10. Classify different types of 3rd molar impactions with diagrams, if required. (5)
11. 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