

ROYAL CIVIL SERVICE COMMISSION
BHUTAN CIVIL SERVICE EXAMINATION (BCSE) 2020
EXAMINATION CATEGORY: TECHNICAL

PAPER III: SUBJECT SPECIALISATION PAPER FOR DENTAL SURGERY

Date : February 27, 2021
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 to check the number of pages of the 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 Questions
All 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 on 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 must hand over the Answer Booklet to the Invigilator before leaving the examination hall.**
10. This paper has **8 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 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. Angular cheilitis is most commonly seen in
 - a) Xerostomia
 - b) HIV/AIDs
 - c) Vitamin C deficiency
 - d) Fungal infection

2. Covid-19 disease is caused by
 - a) Bacteria
 - b) Virus
 - c) Protozoa
 - d) Fungi

3. Studies have confirmed that Covid-19 can be transmitted via
 - a) Direct contact
 - b) Aerosols and droplets
 - c) Droplets
 - d) All of the above

4. Covid-19 disease was first confirmed from which place?
 - a) Seoul
 - b) Wuhan
 - c) Guangzhou
 - d) Taipei

5. Which one of the following is the most effective medicine in treating oral candidiasis at our set up?
 - a) Griseofulvin
 - b) Penicillin
 - c) Nystatin
 - d) Amoxicillin

6. 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.

7. The salivary duct of mandibular salivary gland is
 - a) Stenson's duct
 - b) Wharton's duct
 - c) Bartholin's duct
 - d) Sub-mandibular duct

8. Denture stomatitis is commonly seen in
 - a) Anemic patients
 - b) Old people
 - c) Immune-compromised people
 - d) All of the above

9. The most common cause of **oral submucous fibrosis** in Bhutan is
 - a) Alcohol
 - b) Betel nut
 - c) Betel nut and tobacco
 - d) Betel nut and its products

10. In patients with infected tooth, the associated lymph nodes are
 - a) Enlarged and tender
 - b) Enlarged and fixed
 - c) Enlarged and rubbery
 - d) Enlarged and matted

11. What is the most common benign tumor of dental origin in the mandible?
 - a) Adenocarcinoma
 - b) Ameloblastoma
 - c) Mucocele
 - d) Osteomyelitis

12. Pain with swelling and oozing of pus from the duct of a submandibular gland is a sign of
 - a) Sialolithiasis
 - b) Sialoadenitis
 - c) Mumps
 - d) Adeno-carcinoma

13. A fluctuant swelling on the inner buccal mucosa that is yellowish in color and does not often change its size may be most commonly
 - a) Ranula
 - b) Mucocele
 - c) Fibroma
 - d) Lipoma

14. Chronic cheek biting in a patient with the habit of nail biting is also known as
- Frictional Keratosis
 - Kerato-acanthosis
 - Irritation fibroma
 - Morsicatio buccarum
15. Non carious wedge shaped tooth tissue loss along the buccal surface(s) of a tooth/teeth is scientifically termed as
- Attrition
 - Abrasion
 - Abfraction
 - Erosion
16. If DMFT stands for decayed, missing, filled tooth/teeth, what does 'DMFS' stand for?
- Dental, Missing, Filled, Sides.
 - Decayed, Missing, First, SingleTooth.
 - Decay, Must, Fill, Somehow.
 - Decayed, Missing, Filled, Surfaces.
17. 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
18. Which of the following dental cement component accelerates the formation of reparative dentin?
- Eugenol
 - Calcium hydroxide
 - Zinc Oxide
 - Silica
19. A patient allergic to penicillin may also be allergic to
- Sulphamethaxazole
 - Cephalosporin
 - Macrolides
 - Aminoglycosides
20. Which of the following non-steroidal anti-inflammatory drug is available in our hospitals?
- Tab. Indomethacin
 - Tab. Ibuprofen
 - Tab. Paracetamol
 - Tab. Acetaminophen

21. 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
22. Deep veins of the face include
- Facial
 - Posterior auricular
 - Maxillary
 - Retro-mandibular
23. If a patient walks into your chamber with an avulsed tooth in his hands and a bleeding mouth after a fall injury from a bicycle, what will you do?
- Ask him to throw the tooth and start examining him.
 - Collect the tooth, examine other injuries and send him home with medicines.
 - Collect the tooth, examine the patient for other problems, fix the avulsed tooth and splint it.
 - Medicate and send him.
24. At what intrauterine age does tooth start to develop normally?
- At 6 weeks
 - 4 months
 - 6 months
 - 12 months
25. Development of body of mandible involves which one of the following?
- Reichert's cartilage
 - Meckel's cartilage
 - Intra-membranous bone development
 - Endo-chondrial ossification of Meckel's cartilage
26. In terminal cancer patients, the most common oral medicine (analgesic) given at our set up is
- Pethidine
 - Tramadol
 - Ibuprofen
 - Morphine
27. One of the most effective medicines in treating oral fungal infection is
- Griseofulvin
 - Penicillin
 - Miconazole
 - Amoxicillin

28. The microorganism most commonly associated with tooth caries is
- streptococcus salivaris
 - streptococcus mitis
 - streptococcus mutans
 - streptococcus pyogenes
29. A 5-year-old boy has minute white specks (koplicks spots) 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
30. The initial changes in dental caries usually starts with the loss of
- enamel prisms (loss of calcium initially that results in loss of enamel prisms)
 - organic matrix
 - inter-prismatic substance
 - enamel sheath

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 the term “Pericoronitis”? Can it be managed in the dental OPD, if so how do you manage it? What is the best treatment option for a recurrent Pericoronitis? (5 marks)
2. A patient with a persistent oozing from an infected molar tooth with a draining sinus on the buccal cheek visits your chamber. What would be your differential diagnosis and how will you approach for management? (5 marks)
3. What do you understand by “tooth decay”? State the common etiologies of dental caries (theories). Explain the Sequelae of untreated dental caries. (1+2+2 marks)
4. What is fluoride? Does it have any role in caries prevention, if so how? What are the sources of fluoride in our country? (1+2+2 marks)

SECTION B: CASE STUDY [50 marks]

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

CASE I

A young adult male of 21 years of age comes to the Dental clinic with a swollen Right Sub-mandibular region. He gives the following medical/dental histories.

Histories: H/O RHD when young and has been to Cardiac center in India, Kolkata and has a prosthetic Mitral valve replacement for last 3 years. He is on regular Medications. He gives a history of repeated swelling of the Rt. Sub-Mandibular region for the last two years. He was repeatedly given some medicines (antibiotics and analgesics) and sent back, but the problem persists on and off and suffers from trismus often and is not able to eat his normal diet. He is desperate to get rid of the dental problem once and for all. Answer the following questions with this history:

1. What is his medical problem? What could be the medicines that this patient has to take regularly after the Mitral valve replacement prosthetic surgery? (2+3 marks)
2. What are the precautions a Dentist has to take for any invasive procedures he has to undergo? Write down the NYHA (New York Heart Association) Guidelines of various antibiotic Prophylaxis prior to Dental treatment in patients with Rheumatic heart Disease. (5+5 marks)
3. What are other cardiac diseases that a patient has to take Antibiotic prophylaxis prior to any invasive Dental therapy? (5 marks)
4. What other cardiac diseases in a dental patient do not need Antibiotic prophylaxis? (5 marks)
5. Write the differential Diagnosis for his recurrent Dental problem. (5 marks)
6. What other investigations should be carried out in such a case prior to any Dental invasive procedures? (5 marks)
7. Describe the management of his Dental problem so that he does not have to suffer again from the same problem? (10 marks)
8. What would be the most appropriate treatment for this patient, describe briefly? (5 marks)

CASE II

A 76-year-old woman, diabetic and on regular medication walks to your clinic with complain of oral ulcerations that started one week ago and increased progressively over the period. She states that it started as fluid filled blisters and vesicles on the mouth and skin over the trunk, thighs and in genital area. No intact blisters were found in the mouth as it had already ruptured leaving behind only ulcerations. She feels that she has oral cancer and will not be able to live a normal life again. She also gives a history of hypertension and rheumatoid arthritis and has taken medicines like systemic steroid (prednisolone) and methotrexate for many years. She has stopped these medicines (medicine for hypertension and rheumatoid arthritis) since last three years upon her physician's advice. However, she is on regular medication for diabetes mellitus only. With this brief history in mind, carefully answer the following questions:

1. What could be this disease(s)? Give a detailed history taking in this patient as you think relevant? (3+7 marks)
2. Give your differential diagnosis and justify them. (5+5 marks)
3. What investigations will you do for this patient? Give justifications for your investigations? (5+5 marks)
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 marks)
5. Give your management protocol in this patient? (10 marks)

TASHI DELEK