

**PAPER III: SUBJECT SPECIALIZATION PAPER for
OTOLARYNGOLOGY WITH MBBS (Technical)**

**ROYAL CIVIL SERVICE COMMISSION
BHUTAN CIVIL SERVICE EXAMINATION (BCSE) 2012
EXAMINATION CATEGORY: TECHNICAL**

**PAPER III: SUBJECT SPECIALIZATION PAPER for
OTOLARYNGOLOGY WITH MBBS**

Date	: 14 October 2012
Total Marks	: 100
Examination Time	: 150 minutes (2.5 hours)
Reading Time	: 15 Minutes (prior to examination time)

READ THE FOLLOWING INSTRUCTIONS CAREFULLY:

1. Write your Roll Number clearly on the Answer Booklet in the space provided.
2. The first 15 minutes is being provided to check the number of pages, printing errors, clarify doubts and to read the instructions. You are NOT PERMITTED TO WRITE during this time.
3. Use either Blue or Black ink pen or ball point pen for the written part and Pencils for the sketches and drawings.
4. All answers should be written on the Answer Booklet provided. Candidates are not allowed to write anything on the question paper or any other materials.
5. All answers must be labeled with appropriate question numbers (Section, Question and sub-Question Numbers wherever applicable). Unlabelled answers will not be assessed.
6. This paper is divided into two sections-namely SECTION A and SECTION B.
7. SECTION A consists of two parts: Part I and Part II.

Part I consists of 30 Multiple-Choice Questions carrying one (1) mark each and is compulsory. The answer of your choice should be clearly written in whole along with the question and option number on your answer booklet. Eg. 31(c).

Part II consists of four (4) short answer questions of five (5) marks each and all questions are compulsory.
8. SECTION B consists of two Case Studies. Choose only ONE case study and answer the questions under your choice. Each case study carries fifty (50) marks in total.
9. This Paper consists of eight (8) pages including this Instruction page.

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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 Sheet against the question number. E.g. 31 (c). Each question carries ONE mark.

1. Acoustic neuroma usually does not present with:
 - a. Hearing loss
 - b. Severe giddiness
 - c. Tinnitus
 - d. Mild imbalance

2. Otoacoustic emissions are produced by:
 - a. Tympanic membrane vibration
 - b. Ossicular movement
 - c. Otoconia
 - d. Outer hair cells

3. Acoustic reflex is due to contraction of:
 - a. Tensor tympani
 - b. Posterior auricularis
 - c. Stapedius
 - d. Tensor levator palati

4. Conductive deafness is defined as an Air-bone gap of more than:
 - a. 20dB
 - b. 25dB
 - c. 15dB
 - d. 30dB

5. Overlay technique of myringoplasty consists of placing the graft:
 - a. Lateral to the tympanic membrane
 - b. Medial to the tympanic membrane
 - c. In between the fibrous and skin layer of the tympanic membrane
 - d. Partially medial and partially lateral to the tympanic membrane

6. Otitis media with effusion manifests with:
 - a. Foreshortened handle of malleus
 - b. Absent cone of light
 - c. "B" curve on tympanometry
 - d. All of the above

7. Medial limit of a cortical mastoidectomy is:
 - a. Horizontal segment of facial nerve
 - b. Endolymphatic sac
 - c. Lateral semicircular canal
 - d. Promontory

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8. Stretching of the Chorda tympani during middle ear surgery can lead to:
 - a. Facial palsy
 - b. Complete loss of taste
 - c. Parageusia
 - d. Vertigo

9. Middle ear air pressure can be equalized by:
 - a. Valsalva's maneuver
 - b. Toynbee's maneuver
 - c. Frenzel's maneuver
 - d. All of the above

10. Coalescent mastoiditis is ideally treated by:
 - a. Parenteral antibiotics
 - b. Incision and drainage
 - c. Cortical Mastoidectomy
 - d. Canal wall down mastoidectomy

11. Nasal valve:
 - a. Does not allow air in once expired out
 - b. Is the narrowest part of the nasal airway
 - c. Is where most nasal foreign bodies are impacted
 - d. If dysfunctional leads to sinusitis

12. Basal lamella separates:
 - a. Maxillary sinus from ethmoids
 - b. Frontal sinus from anterior cranial fossa
 - c. Anterior ethmoids from posterior ethmoids
 - d. Right ethmoids from left ethmoids

13. Rhinosporidiosis is endemic to:
 - a. India
 - b. South Bhutan
 - c. North Bhutan
 - d. Kazakhstan

14. Unilateral rhinorrhoea with foul smell in children most likely is due to:
 - a. Mucormycosis
 - b. Nasal polyposis
 - c. Foreign body
 - d. Sinusitis

15. Clear rhinorrhoea that cannot be sniffed back is likely to be due to:
 - a. Allergic rhinitis
 - b. Vasomotor rhinitis
 - c. CSF rhinorrhoea
 - d. CSF otorrhoea

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16. Inferior meatal antrostomy is not effective in treating sinusitis because:
- Cilia are damaged during the surgery
 - Mucociliary clearance directs only towards the natural ostia
 - Bacteria is not cleared from the sinus
 - It is effective
17. Posterior nasal packing is most effective in:
- Epistaxis from Little's area
 - Epistaxis due to sinus carcinoma
 - Epistaxis due to bleeding after adenoidectomy
 - Epistaxis head injury
18. While approaching the sphenoid sinus during FESS, care must be taken not to damage:
- Posterior ethmoid artery
 - Optic nerve
 - Cribiform plate of ethmoid
 - Sella turcica
19. Which is not a landmark for the facial nerve:
- Tragal pointer
 - Tympanomastoid suture line
 - Stylo-mastoid foramen
 - Posterior belly of digastric muscle
20. Which is more effective in treating allergic rhinitis:
- Chlorpheniramine
 - Cetirizine
 - Normal saline
 - Fluticasone
21. If left untreated, Papillary carcinoma of thyroid can convert to:
- Anaplastic carcinoma
 - Follicular carcinoma
 - Medullary carcinoma
 - Adenocarcinoma
22. Laryngeal cartilage tenderness in a case of cancer larynx indicates:
- Laryngitis
 - Perichondritis
 - Cartilage invasion
 - Level VI metastasis
23. Modified radical neck dissection type I involves the preservation of:
- Internal jugular vein
 - Sterno mastoid muscle
 - Accessory nerve
 - Auriculo temporal nerve

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24. The two lobes of the submandibular salivary gland are separated by:
- a. Mylohyoid muscle
 - b. Anterior belly of digastric muscle
 - c. Deep investing layer of cervical fascia
 - d. Branch of facial artery
25. Saddle nose can be due to the following except:
- a. Over resection of septal cartilage
 - b. Septal haematoma
 - c. Rhinoscleroma
 - d. Trauma
26. Before operating a thyroglossal cyst, a thyroid scan should ideally be done because:
- a. There might be thyroid cancer
 - b. In order to demarcate the thyroid gland
 - c. The thyroglossal cyst might contain the only functioning thyroid tissue
 - d. In order to destroy any thyroid tissue
27. Painless falling off of teeth in oral cancer indicates:
- a. Involvement of lingual nerve
 - b. Severe dental caries
 - c. Infiltration of mandible
 - d. Inoperable tumor
28. Sinusitis can be confirmed by:
- a. X-ray Water's view
 - b. Sinus tenderness
 - c. Pus in the middle meatus
 - d. Post nasal drip
29. Internal branch of the Superior laryngeal nerve innervates:
- a. Adductor muscles only
 - b. Abductor muscles only
 - c. Cricothyroid muscle
 - d. None of the above
30. Which foreign body in the esophagus has to be removed as soon as possible:
- a. Peanut
 - b. Bone
 - c. Watch battery
 - d. None of the above

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PART – II : Short Answer Questions (20 marks)

Answer ALL the questions. Each question carries 5 marks.

1. Describe in detail what a Carhart's notch should consist of and enumerate the causes that lead to it.
2. Describe in brief the management of papillary carcinoma of thyroid in a 50 year old lady with a tumor size of 4.5 cm and lymph node metastasis.
3. Describe in brief the various types of neck dissection that you know.
4. Define and describe the management of a case of Idiopathic Sudden Sensori Neural Hearing Loss

SECTION B : Case Study

Choose either Case 1 or Case 2 from this Section. Each Case carries 50 marks.
Mark for each sub-question is indicated in the brackets.

CASE 1

1. A 20 year old male presents with foul smelling, blood stained discharge in the right ear since 12 years: (10 Marks)
 - a. What is the likely diagnosis?
 - b. What would you explain to the patient about his condition?
 - c. What are the possible complications of this condition?
 - d. If you decide on surgery then what surgery would you like to do?
 - e. What are the precautions that you would like to take during the surgery?
2. A 25 year old lady is diagnosed as a case of sinusitis: (10 Marks)
 - a. How would you confirm the diagnosis?
 - b. How would you manage this conservatively?
 - c. What structures would you be careful about during FESS?
 - d. List the complications of sinusitis?
 - e. What is image guided sinus surgery?

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3. A 30 year old lady presents with a 3 year duration swelling in front of the neck that moves with deglutition but not on protrusion of the tongue. It has slowly been increasing in size. There are no symptoms of hormonal imbalance:
(15 Marks)
- a. How would you investigate this patient?
 - b. What would be a significant finding in an ultrasound scan?
 - c. Is an Ultrasound guided FNAC superior to a non-guided one and if so, why?
 - d. What is the difference between a 'cold' and 'hot' nodule on thyroid scan?
 - e. What is the significance of a 'cold' nodule?
4. The above patient has an FNAC done and it is reported as "Follicular neoplasm":
(15 Marks)
- a. What condition needs to be ruled out?
 - b. How would you go about doing it?
 - c. What is completion thyroidectomy?
 - d. What adjunctive treatment is required?
 - e. In case of total thyroidectomy for malignancy, what protein assay is done for monitoring and what is its significance?

CASE 2

1. A 35 year old man presents with allergic rhinitis and extensive nasal polyps:
(10 Marks)
- a. Is surgery a permanent solution, give reasons?
 - b. What medical therapy would you recommend?
 - c. What part of the mucosa does the polyps arise from?
 - d. What is 'Samter's' triad?
 - e. What is the role of mast cell stabilizers in this condition?
2. A 2 year old child is brought with history of sudden onset choking after eating candy. There is no stridor and the child is not cyanotic:
(10 Marks)
- a. What is the most likely diagnosis in this case and what procedure is done to treat it?
 - b. If the first attempt fails, can you abandon the procedure and try again after one or two days, and what interim treatment should be done?
 - c. What is the most frequently documented airway foreign body the world over?
 - d. Enumerate the different ways to ventilate a patient for rigid bronchoscopy during anesthesia.
 - e. Describe the position of the patient during laryngoscopy, oesophagoscopy or bronchoscopy and explain its advantage.

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3. A 6 year old child is brought with history of delayed speech and poor school performance. On examination his tympanic membranes are retracted with reduced mobility. Tympanometry shows a 'B' type curve: (15 Marks)
- a. What conservative management could you advise this patient?
 - b. What two main types of tympanostomy tubes do you know of? Which quadrant of the tympanic membrane is ideal for placement of this tube and why?
 - c. How does the tympanostomy tube treat this condition?
 - d. What are the possible complications of this surgery?
 - e. What does the 'C' curve on tympanometry indicate?
4. A 60 year old male diagnosed as a case of laryngeal cancer presents with acute stridor: (15 Marks)
- a. Enumerate serially the layers encountered during a tracheostomy.
 - b. In what condition is the first ring of trachea sometimes incised during a tracheostomy?
 - c. Why does the cuff of a tracheostomy tube need to be regularly deflated?
 - d. Enumerate three options for voice rehabilitation in a laryngectomised patient?
 - e. Which structure is preserved in a sub total laryngectomy?