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**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**MS (OTORHINOLARYNGOLOGY) DEGREE EXAMINATION – MAY 2021**  
**PAPER I**

Monday, May 03, 2021

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Draw neat-labeled diagrams/ flow charts wherever necessary.**

✍ **Long essay questions:**

1. What is middle ear cleft? Describe the surgical anatomy and importance of sinus tympani and facial recess.

(15 marks)

2. Discuss the basic mechanism of deglutition. Enumerate the various tests done to assess swallowing.

(15 marks)

3. **Short essay questions:**

3A. Itraconazole

3B. Merits and demerits of pure tone audiometry

3C. Mucous blanket

3D. Stem cells

3E. Immunoglobulin E

3F. Klebsiella rhinoscleromatis

3G. Functions of Eustachian tube

3H. Superior laryngeal nerve

3I. Care of patient during radiotherapy

3J. Broncho-pulmonary segments

(7 marks × 10 = 70 marks)



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**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**MS (OTORHINOLARYNGOLOGY) DEGREE EXAMINATION – MAY 2021**

**PAPER II**

Tuesday, May 04, 2021

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Draw neat-labeled diagrams/ flow charts wherever necessary.**

✍ **Long essay questions:**

1. Discuss the management of acoustic neuroma.

(15 marks)

2. Describe the etiology, clinical features and management of atrophic rhinitis.

(15 marks)

3. **Short essay questions:**

3A. Orbital complications of sinusitis

3B. Sudden sensorineural hearing loss

3C. Rhinoscleroma

3D. Congenital cholesteatoma

3E. Nasal myiasis

3F. Perilymph fistula

3G. Endoscopic DCR

3H. Tip rhinoplasty

3I. Presbycusis

3J. Ramsey-Hunt syndrome

(7 marks × 10 = 70 marks)



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**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**MS (OTORHINOLARYNGOLOGY) DEGREE EXAMINATION – MAY 2021**  
**PAPER III**

Wednesday, May 05, 2021

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

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✍ **Answer ALL the questions.**

✍ **Draw neat-labeled diagrams/ flow charts wherever necessary.**

✍ **Long essay questions:**

1. Discuss the recent trends in the management of laryngotracheal stenosis.

(15 marks)

2. Discuss recent developments in the treatment of obstructive sleep apnea.

(15 marks)

3. **Short essay questions:**

3A. Endoscopic trans-nasal hypophysectomy

3B. Minimally invasive thyroid surgery

3C. Fully implantable hearing aid

3D. Role of botulinum toxin in ENT

3E. Therapeutic Sialendoscopy

3F. Scintigraphy in ENT

3G. Robotic neck dissection

3H. Neo-adjuvant chemotherapy

3I. Recent trends in stapes surgery

3J. Management of sulcus vocalis

(7 marks × 10 = 70 marks)



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**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**MS (OTORHINOLARYNGOLOGY) DEGREE EXAMINATION – MAY 2021**  
**PAPER IV**

Thursday, May 06, 2021

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Draw neat-labeled diagrams/ flow charts wherever necessary.**

✍ **Long essay questions:**

1. Discuss the evaluation and management of a 63-year-old with progressive dysphagia of 3 months duration and hoarseness of 2 weeks duration.

(15 marks)

2. Discuss the complications of tonsillectomy and their management.

(15 marks)

3. **Short essay questions:**

3A. Factors favoring response to radiotherapy for head & neck malignancy

3B. Esophageal conduits for esophageal malignancy

3C. Etiopathology of pharyngeal pouch

3D. Management of metastatic cervical carcinoma of unknown primary

3E. Contact granuloma

3F. Complications of parapharyngeal abscess

3G. Epulis

3H. Management of T1N0Mx well differentiated carcinoma of the lateral border of the oral tongue

3I. Pleomorphic adenoma of the parotid gland

3J. Tracheo-esophageal puncture

(7 marks × 10 = 70 marks)

