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MANIPAL ACADEMY OF HIGHER EDUCATION
MS (OTORHINOLARYNGOLOGY) DEGREE EXAMINATION – JULY 2023

PAPER I

Monday, July 03, 2023

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ Answer ALL the questions.

✍ Essay questions:

1. Classify the triangles of neck. Discuss the lymphatic drainage of head and neck. (15 marks)
2. Describe the anatomy of Organ of corti. Discuss the transduction function of the cochlea. (15 marks)

3. Write short notes on:

- 3A. Cetuximab
- 3B. Types of tympanograms and its significance
- 3C. Human Papilloma Virus
- 3D. Stem cells
- 3E. Hypotensive anaesthesia in ENT
- 3F. Spaces of larynx
- 3G. Development and pneumatisation of mastoid
- 3H. Nasopharyngoscopy
- 3I. Relations of sphenoid sinus
- 3J. Coagulation profile

(7 marks × 10 = 70 marks)



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MANIPAL ACADEMY OF HIGHER EDUCATION
MS (OTORHINOLARYNGOLOGY) DEGREE EXAMINATION – JULY 2023

PAPER II

Tuesday, July 04, 2023

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Essay questions:**

1. Describe the clinical features and management of glomus tympanicum. (15 marks)
2. Discuss the surgical options for management of chronic frontal sinusitis. (15 marks)

3. **Write short notes on:**

- 3A. Electrodiagnostic tests for lower motor neuron facial palsy
- 3B. Otitic hydrocephalus
- 3C. Management of nasal meningo-encephalocele
- 3D. Oroantral fistula
- 3E. Exostosis versus osteoma of the external ear
- 3F. Malignant Rhinosporidiosis
- 3G. Prevention of noise induced hearing loss
- 3H. Complications of stapedectomy
- 3I. Orbital blow-out fracture
- 3J. Management of nasal septal perforation

(7 marks × 10 = 70 marks)



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MANIPAL ACADEMY OF HIGHER EDUCATION
MS (OTORHINOLARYNGOLOGY) DEGREE EXAMINATION – JULY 2023

PAPER III

Wednesday, July 05, 2023

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Essay questions:**

1. Discuss the recent trends in the management of allergic fungal sinusitis (15 marks)

2. Discuss the advances in Cochlear Implant Technology (15 marks)

3. **Write short notes on:**

- 3A. PET scan in head neck oncology
- 3B. Minimally invasive thyroid surgery
- 3C. Fully implantable hearing aid
- 3D. Laryngeal transplantation
- 3E. Biofilm
- 3F. Scintigraphy in ENT
- 3G. Trans-oral robotic surgery
- 3H. 3D conformal radiotherapy
- 3I. Endoscopic middle ear surgery.
- 3J. Stroboscopy

(7 marks × 10 = 70 marks)



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MANIPAL ACADEMY OF HIGHER EDUCATION
MS (OTORHINOLARYNGOLOGY) DEGREE EXAMINATION – JULY 2023

PAPER IV

Thursday, July 06, 2023

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ Answer ALL questions.

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

✍ Long essay questions:

1. Discuss the clinical features and management of recurrent respiratory papillomatosis. (15 marks)
2. Discuss the technique and complications of near-total laryngectomy. (15 marks)

3. Short essay questions:

- 3A. Hyperfractionation
- 3B. Absorbable suture materials
- 3C. Etiopathology of pharyngeal pouch
- 3D. Management of T3N2cMx malignancy of tonsillar fossa
- 3E. Vocal nodule
- 3F. Chronic retropharyngeal abscess
- 3G. Oral lichen planus
- 3H. Management of corrosive stricture of esophagus
- 3I. Prevention of subglottic stenosis
- 3J. Bakamgian flap

(7 marks × 10 = 70 marks)

