

INI CET ENT

Sample Paper – 9

Duration: 14 Minutes

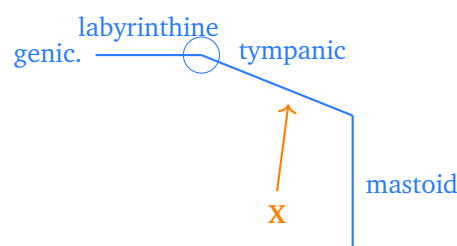
Maximum Marks: 15

Instructions

- This paper contains **15** Multiple Choice Questions (Single Best Response), modelled on the ENT (Otorhinolaryngology) content of **INI CET** (Institutes of National Importance Combined Entrance Test) conducted by AIIMS New Delhi.
- The **15-question** length matches the number of ENT items you actually meet in the real 200-question paper.
- Each correct answer carries **+1 mark**. There is **negative marking of one-third (0.33) mark** for every incorrect answer; unattempted questions carry no penalty.
- Every question has **exactly one best answer**. Choose the single most appropriate option.
- Attempt this practice paper in one timed sitting of about **14 minutes**, the pace the real computer-based test demands.

Otology and Hearing

Q1. The intratemporal course of the facial nerve is shown below. The segment marked **X**, which lies between the geniculate ganglion and the pyramidal eminence and runs along the medial wall of the middle ear, is the:



(A) Labyrinthine segment



- (B) Mastoid (vertical) segment
- (C) Tympanic (horizontal) segment
- (D) Extratemporal segment

Q2. An adult presents with a fully impacted plug of hard cerumen filling the ear canal and a mild conductive-type blockage, with an intact drum and no infection. The most appropriate first-line management is:

- (A) Blind instrumental removal without any visualisation
- (B) Immediate grommet insertion
- (C) Systemic broad-spectrum antibiotics
- (D) Cerumenolytic drops followed by syringing or microsuction under vision

Q3. A man develops sudden vertigo and a roaring tinnitus with fluctuating sensorineural hearing loss immediately after heavy lifting and straining. A leak of inner-ear fluid at the oval or round window is suspected. The most likely diagnosis is:

- (A) Otosclerosis
- (B) Acute otitis media
- (C) Impacted wax
- (D) Perilymph fistula (round window rupture)

Rhinology and Paranasal Sinuses

Q4. A patient complains of complete loss of the sense of smell after a head injury. When testing the first cranial nerve to assess this anosmia, the correct method is to:

- (A) Use a pungent irritant such as ammonia to confirm the olfactory nerve
- (B) Present a non-irritant familiar odour (such as coffee) to each nostril separately with the other occluded



- (C) Test both nostrils together with the eyes open
- (D) Assess taste on the anterior tongue instead

Q5. An adult has long-standing unilateral foul nasal discharge and obstruction, and rhinoscopy shows a hard, stony, greyish calcified mass that has formed around a retained foreign body in the nasal cavity. The most likely diagnosis is:

- (A) Antrochoanal polyp
- (B) Inverted papilloma
- (C) Nasal haemangioma
- (D) Rhinolith

Q6. A patient describes a deep, poorly localised headache felt behind the eyes and at the vertex, worse on bending forward, with post-nasal discharge but a near-normal anterior rhinoscopy. Isolated inflammation of which sinus best explains this picture?

- (A) Sphenoid sinus
- (B) Maxillary sinus
- (C) Frontal sinus
- (D) Anterior ethmoid air cells

Laryngology and the Airway

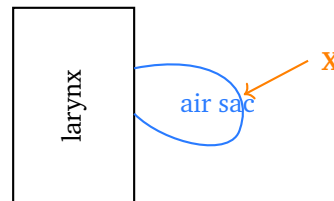
Q7. A patient has a breathy, weak voice from a unilateral vocal cord palsy with the cord fixed in the paramedian position. When the healthy cord fails to compensate and the glottic gap persists, the definitive treatment to restore glottic closure is:

- (A) Total laryngectomy
- (B) Bilateral cordotomy
- (C) Medialisation (thyroplasty or injection augmentation) of the paralysed cord



(D) Permanent tracheostomy alone

- Q8.** The neck swelling shown below is an air-filled sac that herniates from the laryngeal ventricle. It classically enlarges and becomes more prominent when the patient blows against a closed nose or plays a wind instrument. The diagnosis marked **X** is a:



- (A) Laryngocele
- (B) Thyroglossal cyst
- (C) Branchial cyst
- (D) Carotid body tumour

Oral Cavity, Pharynx and Head-Neck Oncology

- Q9.** A velvety, well-defined bright-red patch on the floor of the mouth that cannot be wiped off and does not scrape away is noted in a tobacco chewer. Compared with a white leukoplakic patch, this red lesion is important because it:
- (A) Is erythroplakia and carries a much higher malignant potential than leukoplakia
 - (B) Is always benign and needs only reassurance
 - (C) Represents simple candidiasis that wipes off easily
 - (D) Is a normal variant of the oral mucosa
- Q10.** A young adult has unilateral enlargement of one tonsil that is smooth, rapidly growing and rubbery, with cervical lymphadenopathy but little pain. Excision biopsy is planned. Involvement of the Waldeyer ring by which malignancy best fits this picture?
- (A) Squamous cell carcinoma



- (B) Minor salivary gland adenocarcinoma
- (C) Non-Hodgkin lymphoma
- (D) Basal cell carcinoma

Q11. A patient presents with a metastatic squamous cervical lymph node, but repeated clinical and endoscopic examination fails to reveal the primary tumour. Which investigation is most useful to locate the occult primary before blind biopsy?

- (A) Plain chest radiograph
- (B) Barium swallow
- (C) Whole-body PET-CT scan
- (D) Skull base plain X-ray

Paediatric ENT and Emergencies

Q12. A 2-year-old has had four episodes of acute otitis media in six months. Which of the following is the strongest recognised risk factor for recurrent acute otitis media in young children?

- (A) Exclusive breastfeeding
- (B) Bottle-feeding while lying flat and attending crowded day-care
- (C) Living in a smoke-free home
- (D) Being an only child at home

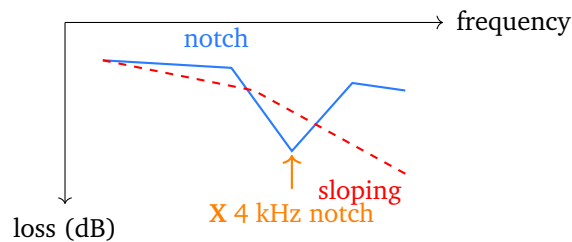
Q13. A 7-year-old child arrives with active anterior epistaxis. After sitting the child up and leaning forward, the correct immediate first-aid step before considering nasal packing is to:

- (A) Tilt the head backwards and pinch the bony bridge
- (B) Firmly pinch the soft cartilaginous part of the nose for about ten minutes
- (C) Lay the child flat and give aspirin
- (D) Pack both nostrils immediately without any pressure



Audiology and Vestibular Assessment

- Q14.** The two audiogram tracings below are compared. Tracing marked X shows a localised dip at 4 kHz with recovery at higher frequencies, while the other slopes gently downwards to the high frequencies. Which interpretation is correct?



- (A) X is the 4 kHz notch of noise-induced loss, and the sloping curve is age-related presbycusis
- (B) X is presbycusis and the sloping curve is noise-induced loss
- (C) Both tracings indicate a purely conductive loss
- (D) Neither tracing represents a sensorineural loss
- Q15.** A patient with acute continuous vertigo, nystagmus and unsteadiness undergoes the head-impulse test as part of the HINTS examination. A positive (abnormal) head-impulse test, showing a corrective saccade, most reliably indicates that the cause is:
- (A) A central (brainstem or cerebellar) stroke
- (B) A peripheral vestibular lesion (such as vestibular neuritis)
- (C) A pure conductive hearing loss
- (D) Benign wax impaction



Detailed Solutions**Q1.****Solution**

Concept – the intratemporal facial nerve: Inside the temporal bone the facial nerve runs a long, angled course divided into named segments.

Step 1 – trace the segments: From the internal acoustic meatus the nerve runs as the labyrinthine segment to the geniculate ganglion, then turns backwards as the **tympanic (horizontal) segment** along the medial wall of the middle ear, and finally descends as the mastoid (vertical) segment to the stylomastoid foramen.

Step 2 – match the marker: The segment marked X, lying between the geniculate ganglion and the pyramidal eminence on the medial middle-ear wall, is the tympanic segment.

Why the other options are wrong:

- A, labyrinthine segment: is the short first part before the geniculate ganglion.
- B, mastoid segment: is the vertical part descending to the stylomastoid foramen.
- D, extratemporal segment: lies outside the temporal bone within the parotid.

Final Answer: Tympanic (horizontal) segment ⇒ C

Answer: (C) [Go Back to Q1](#)

Q2.**Solution**

Concept – managing impacted wax: Hard impacted cerumen should be softened and removed under vision, never blindly.

Step 1 – choose the safe method: The correct first-line approach is a **cerumenolytic** (softening drops) followed by **syringing or microsuction under direct vision**, which clears the plug without injuring the canal or drum.

Step 2 – the safeguard: Working under vision avoids trauma and confirms the drum is intact once the wax is cleared.

Why the other options are wrong:

- A, blind instrumental removal: risks lacerating the canal or perforating the drum.
- B, grommet insertion: treats middle-ear effusion, not canal wax.



- C, systemic antibiotics: are unnecessary as this is not an infection.

Final Answer: Cerumenolytic drops then syringing or microsuction under vision
⇒ D

Answer: (D) [Go Back to Q2](#)

Q3.

Solution

Concept – perilymph fistula: A perilymph fistula is an abnormal leak of inner-ear fluid at the oval or round window.

Step 1 – read the trigger: Sudden vertigo, tinnitus and fluctuating sensorineural loss **immediately after straining or heavy lifting** point to a sudden pressure change rupturing the round window.

Step 2 – the mechanism: A rise in cerebrospinal fluid or middle-ear pressure tears the window membrane, letting perilymph leak and disturbing the labyrinth.

Why the other options are wrong:

- A, otosclerosis: gives a slowly progressive conductive loss, not sudden vertigo on straining.
- B, acute otitis media: causes a painful red drum with fever.
- C, impacted wax: gives painless conductive blockage, not vertigo and sensorineural loss.

Final Answer: Perilymph fistula (round window rupture) ⇒ D

Answer: (D) [Go Back to Q3](#)

Q4.

Solution

Concept – testing the olfactory nerve: The first cranial nerve is assessed with non-irritant smells, one nostril at a time.

Step 1 – the correct method: Present a **familiar non-irritant odour** such as coffee or vanilla to **each nostril separately** while the other is occluded, and ask the patient to identify it.

Step 2 – the reasoning: Non-irritant smells test true olfaction; testing one side at a time localises a unilateral defect, common after head injury shearing the olfactory filaments at the cribriform plate.



Why the other options are wrong:

- A, ammonia: is a pungent trigeminal irritant, sensed even when olfaction is lost, so it is invalid.
- C, both nostrils together: misses a one-sided loss.
- D, testing taste: assesses a different pathway, not the olfactory nerve.

Final Answer: Non-irritant odour to each nostril separately ⇒ **B**

Answer: (B) [Go Back to Q4](#)

Q5.

Solution

Concept – rhinolith: A rhinolith is a calcified mass that forms around a long-retained nasal foreign body.

Step 1 – match the features: Long-standing **unilateral foul discharge** and obstruction with a hard, stony, greyish calcified mass in the nose define a rhinolith.

Step 2 – the mechanism: Mineral salts (calcium and magnesium) deposit around the retained foreign nidus over months to years, forming the stone.

Why the other options are wrong:

- A, antrochoanal polyp: is a soft pale gelatinous mass, not a hard calcified one.
- B, inverted papilloma: is a fleshy tumour of the lateral wall, not stony hard.
- C, nasal haemangioma: is a soft vascular lesion that bleeds, not a calcified mass.

Final Answer: Rhinolith ⇒ **D**

Answer: (D) [Go Back to Q5](#)

Q6.

Solution

Concept – sphenoid sinusitis: The sphenoid sinus lies deep in the skull base, so its pain is deep and poorly localised.

Step 1 – match the pain: A **deep retro-orbital and vertex headache**, worse on bending, with post-nasal discharge but a near-normal anterior rhinoscopy is characteristic of isolated sphenoid sinusitis.



Step 2 – why it is easily missed: The sphenoid sinus is hidden posteriorly, so anterior rhinoscopy is unremarkable and diagnosis needs nasal endoscopy or CT.

Why the other options are wrong:

- B, maxillary sinus: gives cheek pain and upper-tooth ache.
- C, frontal sinus: gives forehead pain typically worse in the morning.
- D, anterior ethmoid: gives pain between and behind the eyes, more medial and superficial than this deep retro-orbital ache.

Final Answer: Sphenoid sinus ⇒

Answer: (A) [Go Back to Q6](#)

Q7.

Solution

Concept – medialising a paralysed vocal cord: When one cord is paralysed in the paramedian position and the other cannot close the gap, the cord must be moved to the midline.

Step 1 – choose the treatment: Medialisation, either by thyroplasty (an implant pushing the cord in) or by injection augmentation, brings the paralysed cord to the midline so the healthy cord meets it and voice improves.

Step 2 – the physiology: Restoring glottic closure removes the breathy escape of air and also protects the airway from aspiration.

Why the other options are wrong:

- A, total laryngectomy: removes the whole larynx and is for cancer, not palsy.
- B, bilateral cordotomy: widens the airway in bilateral abductor palsy, worsening the voice here.
- D, permanent tracheostomy: bypasses the larynx but does not restore glottic closure or voice.

Final Answer: Medialisation (thyroplasty or injection) of the paralysed cord ⇒

Answer: (C) [Go Back to Q7](#)



Q8.

Solution

Concept – laryngocele: A laryngocele is an air-filled dilatation of the laryngeal ventricle (sacculle).

Step 1 – match the picture: An **air sac** herniating from the laryngeal ventricle (marked X) that enlarges when the patient **blows against resistance** or plays a wind instrument is a laryngocele.

Step 2 – the mechanism: Raised intralaryngeal pressure inflates the sacculle; an external laryngocele bulges through the thyrohyoid membrane into the neck.

Why the other options are wrong:

- B, thyroglossal cyst: is a midline cyst that moves on swallowing and tongue protrusion, and is not air-filled.
- C, branchial cyst: is a lateral cystic swelling anterior to sternomastoid, not air-filled or pressure-dependent.
- D, carotid body tumour: is a pulsatile solid mass at the carotid bifurcation.

Final Answer: Laryngocele $\Rightarrow$ A

Answer: (A) [Go Back to Q8](#)

Q9.

Solution

Concept – erythroplakia: Erythroplakia is a red velvety mucosal patch with a high risk of malignant change.

Step 1 – identify the lesion: A bright-red, velvety, well-defined patch that cannot be wiped or scraped off is **erythroplakia**, and it carries a **much higher malignant potential than leukoplakia**.

Step 2 – the action: Because a large proportion already show severe dysplasia or carcinoma-in-situ, it must be biopsied promptly.

Why the other options are wrong:

- B, always benign: is wrong, as erythroplakia is the most sinister oral pre-malignant lesion.
- C, candidiasis: gives white plaques that wipe off leaving a raw base, not a fixed red patch.
- D, normal variant: a fixed non-scrapable red patch is never dismissed as normal.



Final Answer: Erythroplakia with high malignant potential $\Rightarrow$ **A**

Answer: (A) [Go Back to Q9](#)

Q10.

Solution

Concept – lymphoma of the tonsil: The tonsil is part of the Waldeyer lymphoid ring and can be the site of lymphoma.

Step 1 – read the clues: **Unilateral**, smooth, rapidly growing, rubbery tonsillar enlargement with cervical nodes but little pain in a young adult suggests **non-Hodgkin lymphoma** of the Waldeyer ring.

Step 2 – confirming it: Excision biopsy of the enlarged tonsil provides tissue for immunohistochemistry to type the lymphoma.

Why the other options are wrong:

- A, squamous cell carcinoma: usually presents as an ulcerated painful tonsillar mass, often in older smokers.
- B, minor salivary adenocarcinoma: is rare at the tonsil and not typically rubbery and diffuse.
- D, basal cell carcinoma: is a skin cancer and does not arise in the tonsil.

Final Answer: Non-Hodgkin lymphoma $\Rightarrow$ **C**

Answer: (C) [Go Back to Q10](#)

Q11.

Solution

Concept – occult primary and PET-CT: When a metastatic neck node has no obvious primary, functional imaging searches the whole body.

Step 1 – choose the investigation: A **whole-body PET-CT** scan is the most useful test to locate the occult primary, as metabolically active tumour tissue lights up even when it is clinically silent.

Step 2 – why it helps: PET-CT guides targeted biopsy and staging before resorting to blind panendoscopic biopsies of the likely mucosal sites.

Why the other options are wrong:

- A, chest X-ray: is a crude screen that misses small mucosal primaries.



- B, barium swallow: only images the pharynx and oesophagus, not the whole field.
- D, skull base X-ray: gives no useful information on a mucosal primary.

Final Answer: Whole-body PET-CT scan ⇒ C

Answer: (C) [Go Back to Q11](#)

Q12.

Solution

Concept – risk factors for recurrent acute otitis media: Certain feeding and social factors strongly raise the frequency of ear infections in young children.

Step 1 – pick the strongest factor: **Bottle-feeding while lying flat and attending crowded day-care** are well-recognised risk factors, as supine feeding refluxes milk up the Eustachian tube and day-care increases exposure to respiratory pathogens.

Step 2 – the protective side: Breastfeeding, a smoke-free home and upright feeding all reduce the risk.

Why the other options are wrong:

- A, exclusive breastfeeding: is protective, not a risk.
- C, smoke-free home: reduces risk, as passive smoke is harmful.
- D, being an only child: gives less cross-infection than a crowded household or day-care.

Final Answer: Bottle-feeding lying flat and crowded day-care ⇒ B

Answer: (B) [Go Back to Q12](#)

Q13.

Solution

Concept – first aid for anterior epistaxis: Most childhood nosebleeds are anterior and controlled by simple pressure.

Step 1 – the correct step: After sitting the child up and leaning forward, **firmly pinch the soft cartilaginous part of the nose for about ten minutes**, which compresses Little's area on the septum.

Step 2 – if it fails: Only if bleeding continues does one proceed to cautery or anterior nasal packing.



Why the other options are wrong:

- A, head backwards and pinching the bony bridge: lets blood run down the throat and misses the bleeding site.
- C, lying flat with aspirin: aspirin worsens bleeding and lying flat risks aspiration.
- D, packing without pressure: is premature; simple pressure should be tried first.

Final Answer: Pinch the soft part of the nose for about ten minutes ⇒ **B**

Answer: (B) [Go Back to Q13](#)

Q14.

Solution

Concept – notch versus slope on the audiogram: The shape of the audiogram distinguishes noise damage from ageing.

Step 1 – read the tracings: Tracing X shows a localised dip at 4 kHz with recovery beyond it, the classic **noise-induced notch**; the gently sloping high-frequency curve is **age-related presbycusis**.

Step 2 – the reason for each shape: Noise damages the cochlear region tuned to about 4 kHz, giving a discrete notch, whereas presbycusis causes a progressive downward slope from the high frequencies.

Why the other options are wrong:

- B: reverses the two, wrongly calling the notch presbycusis.
- C, purely conductive: both are sensorineural patterns, not conductive.
- D, neither sensorineural: both are indeed sensorineural configurations.

Final Answer: X is the 4 kHz noise notch; the slope is presbycusis ⇒ **A**

Answer: (A) [Go Back to Q14](#)

Q15.

Solution

Concept – the head-impulse test in HINTS: The head-impulse test is part of the HINTS battery that separates peripheral from central acute vertigo.

Step 1 – interpret the result: An **abnormal (positive) head-impulse test**, where



the eyes lag and make a **corrective saccade** back to the target, indicates a **peripheral vestibular lesion** such as vestibular neuritis.

Step 2 – the safety point: In acute vertigo a *normal* head-impulse test is the worrying finding, as it suggests a central stroke; the abnormal test is reassuringly peripheral.

Why the other options are wrong:

- A, central stroke: is suggested by a normal head-impulse test with other central signs, not a positive one.
- C, conductive loss: is a hearing problem unrelated to the vestibulo-ocular reflex.
- D, wax impaction: does not affect the head-impulse test.

Final Answer: A peripheral vestibular lesion $\Rightarrow$ B

Answer: (B) [Go Back to Q15](#)



Answer Key

Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	C	2	D	3	D	4	B	5	D
6	A	7	C	8	A	9	A	10	C
11	C	12	B	13	B	14	A	15	B

