

INI CET ENT

Sample Paper – 4

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. A 4-year-old child with a two-week history of acute otitis media develops a tender, boggy swelling behind the ear (marked **X**) that pushes the pinna forward and downward, as shown below. The most likely complication is:



- (A) Acute otitis externa
- (B) Acute mastoiditis
- (C) Bell's palsy



(D) Parotid abscess

Q2. Which of the following drug groups characteristically damages the cochlear hair cells and produces an irreversible sensorineural hearing loss and tinnitus?

- (A) Penicillin antibiotics
- (B) Beta-adrenergic blockers
- (C) Aminoglycoside antibiotics and cisplatin
- (D) Oral antihistamines

Q3. A previously well adult wakes with a sudden unilateral hearing loss developing over a few hours, with no wax or middle-ear disease on examination. This is an otological emergency, and the most appropriate immediate treatment is:

- (A) Reassurance and observation only
- (B) Urgent high-dose corticosteroids
- (C) Grommet (ventilation tube) insertion
- (D) Simple ear-wax removal

Rhinology and Paranasal Sinuses

Q4. A 7-year-old child with ethmoid sinusitis develops swelling and redness of the eyelids, proptosis, and painful, restricted eye movements. The most likely complication is:

- (A) Orbital cellulitis
- (B) Allergic conjunctivitis
- (C) Chalazion
- (D) Dacryocystitis

Q5. A middle-aged adult presents with a unilateral, firm mass arising from the *lateral* nasal wall. Histology shows epithelium growing inward into the stroma, and there is a recognised risk of malignant change to squamous cell carcinoma. The most likely diagnosis is:



- (A) Simple ethmoidal nasal polyp
- (B) Inverted papilloma
- (C) Antrochoanal polyp
- (D) Rhinosporidiosis

Q6. A patient has persistent bloody nasal crusting, a septal perforation, an early saddle-nose deformity and a positive cytoplasmic anti-neutrophil cytoplasmic antibody (c-ANCA). The most likely diagnosis is:

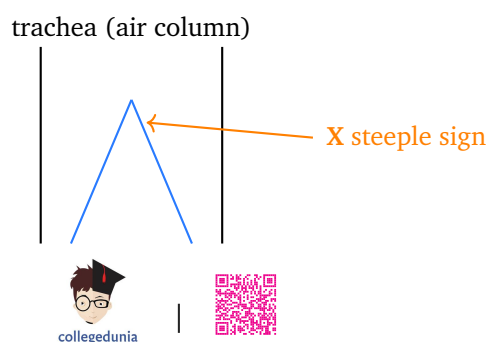
- (A) Sarcoidosis
- (B) Nasal tuberculosis
- (C) Rhinoscleroma
- (D) Granulomatosis with polyangiitis (Wegener granulomatosis)

Laryngology and the Airway

Q7. A middle-aged woman who is a heavy smoker complains of a persistent low-pitched, gruff voice. Laryngoscopy shows bilateral diffuse fusiform swelling of the vocal cords due to fluid collecting in the subepithelial (Reinke) space. The most likely diagnosis is:

- (A) Bilateral vocal nodules
- (B) Recurrent respiratory papillomatosis
- (C) Contact ulcer of the larynx
- (D) Reinke oedema (polypoid corditis)

Q8. An 18-month-old child has a barking (seal-like) cough, inspiratory stridor and a hoarse voice with a mild fever. The frontal neck radiograph shows the tapering 'steeple sign' of subglottic narrowing, marked X below. The most likely diagnosis is:



- (A) Acute epiglottitis
- (B) Acute laryngotracheobronchitis (croup)
- (C) Inhaled foreign body
- (D) Laryngeal diphtheria

Oral Cavity, Pharynx and Head-Neck Oncology

Q9. The commonest site for carcinoma of the tongue is the:

- (A) Lateral border (middle third) of the tongue
- (B) Tip of the tongue
- (C) Dorsum of the tongue
- (D) Under-surface in the midline

Q10. A young adult has a painless, smooth, midline neck swelling that moves upward on both swallowing and protrusion of the tongue. The most likely diagnosis is:

- (A) Thyroglossal duct cyst
- (B) Branchial cleft cyst
- (C) Lipoma of the neck
- (D) Cystic hygroma

Q11. A 22-year-old has a painless, fluctuant, slowly enlarging swelling in the upper lateral neck lying deep to the anterior border of the sternocleidomastoid muscle. The most likely diagnosis is:

- (A) Thyroglossal duct cyst
- (B) Carotid body tumour
- (C) Submandibular sialadenitis
- (D) Branchial cleft cyst

Paediatric ENT and Emergencies

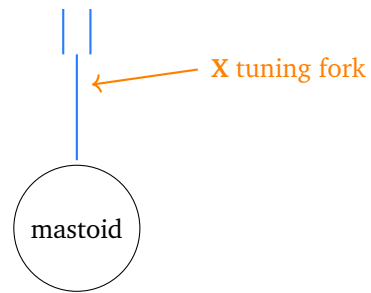


- Q12.** A child bleeds from the tonsillar bed within the first few hours (under 24 hours) after a tonsillectomy, usually because a ligature has slipped or a vessel has reopened as the anaesthetic wears off. This type of bleeding is termed:
- (A) Primary haemorrhage occurring during the operation
 - (B) Secondary haemorrhage from infection
 - (C) Reactionary haemorrhage
 - (D) Delayed infective haemorrhage after the fifth day
- Q13.** In a child with stridor, a predominantly *inspiratory* stridor most reliably localises the airway obstruction to which level?
- (A) The small (intrathoracic) bronchi
 - (B) The lower intrathoracic trachea
 - (C) The supraglottis and larynx (extrathoracic upper airway)
 - (D) The alveoli

Audiology and Vestibular Assessment

- Q14.** Brainstem evoked response audiometry (BERA, also called the auditory brainstem response or ABR) is most useful for:
- (A) Estimating the hearing threshold in an uncooperative infant and screening for retrocochlear (for example acoustic neuroma) pathology
 - (B) Measuring the middle-ear pressure and drum compliance
 - (C) Removing impacted ear wax
 - (D) Testing balance (vestibular) function only
- Q15.** In the Rinne tuning-fork test the fork is held first near the ear canal (air conduction) and then on the mastoid (bone conduction), as shown below. A *negative* Rinne, where bone conduction is heard better than air conduction in that ear, indicates:





- (A) Completely normal hearing
- (B) A sensorineural hearing loss in that ear
- (C) A conductive hearing loss in that ear
- (D) No abnormality of any kind



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

Concept – acute mastoiditis: Acute mastoiditis is a suppurative infection of the mastoid air cells, the commonest complication of acute otitis media.

Step 1 – match the picture: A young child with unresolving acute otitis media who develops a **tender post-auricular swelling** that pushes the pinna forward and down (marked X) has acute mastoiditis.

Step 2 – the mechanism: Pus trapped in the middle ear spreads into the mastoid air cells, breaks down the bony septa (coalescent mastoiditis) and points behind the ear.

Why the other options are wrong:

- A, otitis externa: is a painful canal infection and does not push the pinna forward with a boggy mastoid swelling.
- C, Bell's palsy: is a facial weakness, not a post-auricular swelling.
- D, parotid abscess: lies over and in front of, not behind, the ear and does not follow otitis media.

Final Answer: Acute mastoiditis ⇒ B

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

Q2.**Solution**

Concept – ototoxicity: Certain drugs selectively destroy the sensory hair cells of the cochlea, producing a permanent sensorineural hearing loss.

Step 1 – name the group: **Aminoglycoside antibiotics** (for example gentamicin, streptomycin) and the anticancer drug **cisplatin** are the classic ototoxic agents.

Step 2 – the mechanism: They damage the outer hair cells of the basal turn first, so a high-frequency sensorineural loss and tinnitus appear early and are usually irreversible.

Why the other options are wrong:

- A, penicillins: are not classically ototoxic.
- B, beta blockers: are not a recognised cause of cochlear damage.
- D, antihistamines: cause sedation, not hair-cell loss.



Final Answer: Aminoglycoside antibiotics and cisplatin ⇒ C

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

Q3.

Solution

Concept – sudden sensorineural hearing loss: This is the rapid (within 72 hours) loss of hearing from cochlear or neural cause and is a true otological emergency.

Step 1 – recognise the emergency: A sudden unilateral loss over a few hours with a normal ear canal and drum is **sudden sensorineural hearing loss**, and prompt treatment improves recovery.

Step 2 – the treatment: High-dose corticosteroids (oral or intratympanic) are the mainstay, started as early as possible.

Why the other options are wrong:

- A, observation only: wastes the narrow window in which steroids work.
- C, grommet insertion: treats middle-ear effusion, a conductive problem, not this.
- D, wax removal: is irrelevant when the canal is already clear.

Final Answer: Urgent high-dose corticosteroids ⇒ B

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

Q4.

Solution

Concept – orbital cellulitis from ethmoiditis: The thin lamina papyracea separates the ethmoid sinus from the orbit, so ethmoid infection readily spreads to the orbital contents.

Step 1 – match the signs: Eyelid swelling with **proptosis** and **painful, restricted eye movements** in a child with ethmoid sinusitis defines **orbital cellulitis** (post-septal infection).

Step 2 – why it matters: It threatens vision and can spread to a cavernous sinus thrombosis, so it needs urgent intravenous antibiotics and possible drainage.

Why the other options are wrong:



- B, allergic conjunctivitis: causes itching and watering, not proptosis or painful eye movement.
- C, chalazion: is a painless lid-margin lump.
- D, dacryocystitis: is a tender swelling at the medial canthus over the lacrimal sac, without proptosis.

Final Answer: Orbital cellulitis $\Rightarrow$ A

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

Q5.

Solution

Concept – inverted papilloma: Inverted papilloma is a benign but locally aggressive tumour of the lateral nasal wall that inverts into the underlying stroma.

Step 1 – read the clues: A **unilateral** mass on the **lateral nasal wall** with epithelium growing inward and a risk of malignant change points to inverted papilloma.

Step 2 – the caution: Around 5 to 10 per cent harbour or develop squamous cell carcinoma, so it must be excised completely, not just polypectomised.

Why the other options are wrong:

- A, ethmoidal polyp: is typically bilateral, pale and avascular with no malignant potential.
- C, antrochoanal polyp: is a single benign polyp from the maxillary antrum, not the lateral wall inverting lesion.
- D, rhinosporidiosis: gives a friable strawberry-like vascular polyp, not this pattern.

Final Answer: Inverted papilloma $\Rightarrow$ B

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

Q6.

Solution

Concept – granulomatosis with polyangiitis (Wegener): This is a necrotising granulomatous vasculitis that commonly begins in the nose and sinuses.

Step 1 – match the features: Bloody nasal **crusting**, a **septal perforation**, a **saddle-nose** deformity and a positive **c-ANCA** (anti-PR3) define granulomatosis with polyangiitis.



Step 2 – the systemic link: It also affects the lungs and kidneys, so early recognition and immunosuppression prevent organ damage.

Why the other options are wrong:

- A, sarcoidosis: gives non-caseating granulomas but is not c-ANCA positive and rarely causes a saddle nose.
- B, tuberculosis: shows caseating granulomas and acid-fast bacilli, not c-ANCA.
- C, rhinoscleroma: is a chronic klebsiella infection with Mikulicz cells, not an ANCA vasculitis.

Final Answer: Granulomatosis with polyangiitis (Wegener) ⇒ D

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

Q7.

Solution

Concept – Reinke oedema (polypoid corditis): Reinke oedema is a diffuse swelling of the vocal cords from fluid accumulating in the potential subepithelial Reinke space.

Step 1 – read the clues: A **smoker** with a persistent **low-pitched gruff voice** and bilateral fusiform cord swelling has Reinke oedema.

Step 2 – the mechanism: The added fluid increases the mass of the cords, lowering the pitch; smoking cessation and cordotomy or microflap surgery are the treatment.

Why the other options are wrong:

- A, vocal nodules: are small paired swellings at the junction of the anterior and middle thirds, seen in voice overuse, not a diffuse boggy cord.
- B, papillomatosis: shows wart-like exophytic lesions from HPV.
- C, contact ulcer: forms posteriorly on the vocal process, often from reflux or throat clearing.

Final Answer: Reinke oedema (polypoid corditis) ⇒ D

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



Q8.

Solution

Concept – acute laryngotracheobronchitis (croup): Croup is a viral inflammation causing subglottic oedema in young children.

Step 1 – match the picture: A **barking cough**, inspiratory stridor, hoarseness, mild fever and the **steeple sign** (marked **X**) of subglottic narrowing define croup.

Step 2 – the cause and treatment: It is usually due to **parainfluenza virus**; nebulised adrenaline and corticosteroids relieve the airway obstruction.

Why the other options are wrong:

- A, epiglottitis: gives high fever, drooling and a 'thumb sign', not a barking cough and steeple sign.
- C, foreign body: causes sudden choking without the preceding coryzal illness.
- D, laryngeal diphtheria: shows a grey pharyngeal membrane and is now rare with vaccination.

Final Answer: Acute laryngotracheobronchitis (croup) ⇒ **B**

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

Q9.

Solution

Concept – carcinoma of the tongue: The site of a tongue cancer influences its spread and prognosis.

Step 1 – name the site: The commonest site is the **lateral border (middle third)** of the tongue.

Step 2 – why here: This edge is chronically irritated by tobacco, betel-nut, alcohol and sharp teeth, and it drains early to the neck nodes.

Why the other options are wrong:

- B, tip: is an uncommon site and, when involved, tends to drain to the submental nodes.
- C, dorsum: is an uncommon primary site.
- D, under-surface midline: is rarely the site of the primary tumour.

Final Answer: Lateral border (middle third) of the tongue ⇒ **A**



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

Q10.

Solution

Concept – thyroglossal duct cyst: This is a remnant of the thyroglossal tract along which the thyroid descends from the foramen caecum of the tongue.

Step 1 – match the signs: A **midline** neck swelling that **moves up on tongue protrusion** (and on swallowing) is characteristic, because the tract is attached to the hyoid and tongue base.

Step 2 – management: Sistrunk operation, removing the cyst with the central hyoid and tract, prevents recurrence.

Why the other options are wrong:

- B, branchial cyst: is a lateral, not midline, swelling and does not move on tongue protrusion.
- C, lipoma: is a soft mobile swelling unrelated to the tongue.
- D, cystic hygroma: is a soft, transilluminant lymphatic malformation, usually in the posterior triangle in infancy.

Final Answer: Thyroglossal duct cyst $\Rightarrow$ A

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

Q11.

Solution

Concept – branchial cleft cyst: A branchial cyst is a remnant of the second branchial cleft that presents as a lateral neck swelling in young adults.

Step 1 – match the site: A painless fluctuant swelling in the **upper lateral neck**, deep to the **anterior border of sternocleidomastoid**, is the classic location.

Step 2 – the treatment: It is excised surgically; aspirated fluid classically contains cholesterol crystals.

Why the other options are wrong:

- A, thyroglossal cyst: is midline and moves on tongue protrusion.
- B, carotid body tumour: is a pulsatile, mobile-side-to-side mass at the carotid bifurcation, not a fluctuant cyst.
- C, submandibular sialadenitis: is a tender gland swelling below the



mandible, related to meals.

Final Answer: Branchial cleft cyst $\Rightarrow$ D

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

Q12.

Solution

Concept – reactionary haemorrhage after tonsillectomy: Post-tonsillectomy bleeding is classified by its timing.

Step 1 – apply the definition: Bleeding **within the first 24 hours** (usually the first few hours) is **reactionary haemorrhage**, from a slipped ligature or a vessel reopening as the blood pressure normalises after anaesthesia.

Step 2 – management: It needs prompt return to theatre to secure the bleeding point.

Why the other options are wrong:

- A, primary haemorrhage: occurs *during* the operation itself.
- B, secondary haemorrhage: is caused by infection.
- D, delayed infective haemorrhage: is the secondary type occurring around the fifth to tenth day, not within 24 hours.

Final Answer: Reactionary haemorrhage $\Rightarrow$ C

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

Q13.

Solution

Concept – localising stridor by its phase: The phase of stridor points to the level of airway obstruction.

Step 1 – apply the rule: **Inspiratory** stridor localises the obstruction to the **supra-glottis and larynx**, the extrathoracic upper airway, which collapses inward on inspiration.

Step 2 – the contrast: Expiratory stridor (wheeze) points to the intrathoracic lower airway, and a biphasic stridor suggests a fixed subglottic or tracheal lesion.

Why the other options are wrong:

- A, small bronchi: cause an expiratory wheeze, not inspiratory stridor.



- B, lower trachea: is intrathoracic and tends to give expiratory or biphasic noise.
- D, alveoli: are the gas-exchange units and do not produce stridor.

Final Answer: The supraglottis and larynx (extrathoracic upper airway) ⇒ C

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

Q14.

Solution

Concept – brainstem evoked response audiometry (BERA / ABR): BERA records the electrical response of the auditory nerve and brainstem to sound.

Step 1 – state the uses: It is an **objective** test, so it estimates the hearing threshold in an **uncooperative infant** (newborn screening) and screens for **retro-cochlear** lesions such as an acoustic neuroma.

Step 2 – how it works: Wave latencies (waves I to V) are measured; a delayed wave V or prolonged I-V interval suggests a retrocochlear lesion.

Why the other options are wrong:

- B, middle-ear pressure: is measured by tympanometry (impedance audiometry), not BERA.
- C, wax removal: is a treatment, not an audiological test.
- D, balance only: describes vestibular tests such as caloric testing, not BERA.

Final Answer: Estimating infant thresholds and screening for retrocochlear pathology ⇒ A

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

Q15.

Solution

Concept – the Rinne tuning-fork test: The Rinne test compares air conduction (fork at the ear canal) with bone conduction (fork on the mastoid).

Step 1 – apply the rule: Normally, and in sensorineural loss, air conduction is better than bone conduction (a *positive* Rinne). A **negative** Rinne, where **bone conduction is better than air conduction** (marked X), indicates a **conductive hearing loss** in that ear.

Step 2 – the reason: A blocked conductive pathway impairs air conduction, while



bone conduction bypasses it and is relatively preserved.

Why the other options are wrong:

- A, normal hearing: gives a positive Rinne (air better than bone).
- B, sensorineural loss: also gives a positive Rinne, as both air and bone fall together.
- D, no abnormality: is wrong because a negative Rinne is a definite abnormal finding.

Final Answer: A conductive hearing loss in that ear $\Rightarrow$ C

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



Answer Key

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

