

INI CET ENT

Sample Paper – 3

Duration: 14 Minutes

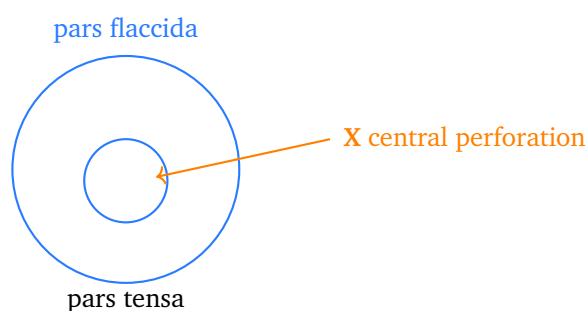
Maximum Marks: 15

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 tympanic membrane below shows a **central** perforation of the pars tensa (marked **X**) with mucoid discharge, and no attic or marginal involvement. This tubotympanic ('safe') type of chronic suppurative otitis media is characterised by:



- (A) A central perforation of the pars tensa that does not erode bone and rarely causes serious complications
- (B) An attic (pars flaccida) perforation with a keratin-filled cholesteatoma sac
- (C) A marginal posterosuperior perforation that always erodes the ossicles
- (D) Absent middle-ear mucosa behind an intact drum

Q2. A 72-year-old man has gradually progressive, bilaterally symmetrical hearing loss that is worst for the high frequencies, with poor speech discrimination in noisy rooms and a normal tympanic membrane. The most likely diagnosis is:

- (A) Otosclerosis
- (B) A noise-induced notch at 4 kHz alone
- (C) Presbycusis (age-related sensorineural hearing loss)
- (D) Meniere disease

Q3. An elderly, poorly controlled diabetic has severe unremitting otalgia, granulation tissue at the bony-cartilaginous junction of the external ear canal and rising signs of skull-base osteomyelitis. The organism most often responsible for this malignant (necrotising) otitis externa is:

- (A) Staphylococcus aureus
- (B) Candida albicans
- (C) Streptococcus pneumoniae
- (D) Pseudomonas aeruginosa

Rhinology and Paranasal Sinuses

Q4. A patient in diabetic ketoacidosis develops facial pain, a black necrotic eschar on the nasal septum and hard palate, and rapidly progressing orbital swelling with visual loss. The most likely diagnosis is:

- (A) Allergic fungal rhinosinusitis



- (B) An aspergilloma of the maxillary sinus
- (C) Bacterial orbital cellulitis
- (D) Rhino-orbital mucormycosis

Q5. A young man has persistent unilateral nasal obstruction; anterior rhinoscopy shows the cartilaginous septum deviated to one side with no polyp or mass. The definitive surgical treatment is:

- (A) Adenoidectomy
- (B) Functional endoscopic sinus surgery
- (C) Septoplasty
- (D) Antral washout (proof puncture)

Q6. A young woman has foul-smelling greenish nasal crusts, a paradoxically wide and roomy nasal cavity on examination and a reduced sense of smell; bystanders notice the odour more than she does. The diagnosis is:

- (A) Atrophic rhinitis (ozæna)
- (B) Acute bacterial rhinosinusitis
- (C) A retained nasal foreign body
- (D) Vasomotor rhinitis

Laryngology and the Airway

Q7. A 4-year-old has progressive hoarseness and stridor; laryngoscopy shows multiple warty, exophytic lesions on the vocal cords that keep recurring after removal. This recurrent respiratory papillomatosis is caused by:

- (A) Human papillomavirus types 6 and 11
- (B) Epstein-Barr virus
- (C) Respiratory syncytial virus
- (D) Herpes simplex virus type 1

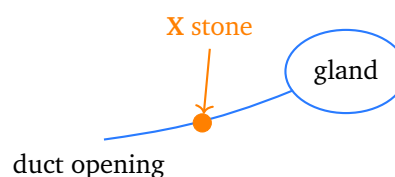
Q8. Which of the following is a recognised indication for tracheostomy?



- (A) An uncomplicated sore throat
- (B) Prolonged mechanical ventilation and upper airway obstruction
- (C) Unilateral vocal cord palsy with an otherwise normal airway
- (D) Mild seasonal allergic rhinitis

Oral Cavity, Pharynx and Head-Neck Oncology

- Q9.** A young man who habitually chews areca (betel) nut has progressive inability to open his mouth (trismus), a blanched fibrotic buccal mucosa and palpable vertical fibrous bands. This premalignant condition is:
- (A) Recurrent aphthous ulceration
 - (B) Oral lichen planus
 - (C) Homogeneous leukoplakia of the tongue
 - (D) Oral submucous fibrosis
- Q10.** A middle-aged male smoker has a soft, slow-growing mass in the tail of the parotid gland; histology shows papillary cystic epithelium sitting on a dense lymphoid stroma. This benign tumour is:
- (A) Pleomorphic adenoma
 - (B) Warthin tumour (papillary cystadenoma lymphomatosum)
 - (C) Mucoepidermoid carcinoma
 - (D) Adenoid cystic carcinoma
- Q11.** The diagram shows a calculus (marked X) lodged in the submandibular (Wharton) duct. Such a stone characteristically causes:



- (A) Painless progressive facial nerve palsy
- (B) Pain and swelling of the gland at mealtimes



- (C) Continuous painless drooling of saliva
- (D) Bilateral parotid swelling with dry eyes

Paediatric ENT and Emergencies

Q12. A newborn turns cyanotic when feeding and settling quietly but becomes pink again as soon as it cries; a soft catheter cannot be passed through either nostril into the pharynx. The diagnosis is:

- (A) Laryngomalacia
- (B) Tracheo-oesophageal fistula
- (C) Bilateral choanal atresia
- (D) Pierre Robin sequence

Q13. A 5-year-old has persistent otitis media with effusion ('glue ear') for more than three months, with a conductive hearing loss that has not responded to medical treatment. The recommended surgical treatment is:

- (A) Radical mastoidectomy
- (B) Stapedectomy
- (C) Grommet (ventilation tube) insertion
- (D) Cortical mastoidectomy

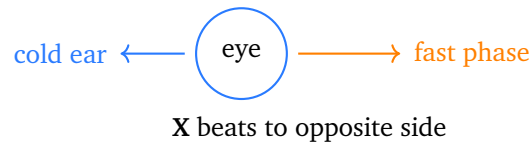
Audiology and Vestibular Assessment

Q14. The objective test of choice for universal newborn hearing screening, which records the sound energy generated by the healthy outer hair cells of the cochlea in response to a click, is:

- (A) Pure-tone audiometry
- (B) Otoacoustic emissions (OAE)
- (C) The Weber tuning-fork test
- (D) Speech audiometry



Q15. In the caloric test, the ear canal below is irrigated with **cold** water and the resulting horizontal nystagmus is recorded (mnemonic COWS – Cold Opposite, Warm Same). In a normal ear, cold-water irrigation produces:



- (A) Nystagmus with the fast phase beating towards the opposite (contralateral) side
- (B) Nystagmus with the fast phase beating towards the same (ipsilateral) side
- (C) No nystagmus at all in a normal ear
- (D) Purely vertical (up-and-down) nystagmus



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

Concept – tubotympanic ('safe') chronic suppurative otitis media: Chronic suppurative otitis media is divided into a tubotympanic ('safe') type and an attic-coantal ('unsafe') type.

Step 1 – read the drum: A **central** perforation of the pars tensa with mucoid discharge, and no attic or marginal defect, defines the tubotympanic type.

Step 2 – why it is 'safe': The disease stays in the mucosa and does not erode bone, so serious complications are uncommon.

Why the other options are wrong:

- B, an attic pars-flaccida perforation with cholesteatoma: describes the attic-coantal ('unsafe') type.
- C, a marginal perforation that always erodes ossicles: again describes the unsafe, bone-eroding disease.
- D, absent mucosa behind an intact drum: is not the picture here, where a perforation is clearly present.

Final Answer: A central pars-tensa perforation that does not erode bone ⇒ A

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

Q2.**Solution**

Concept – presbycusis: Presbycusis is the sensorineural hearing loss that accompanies ageing.

Step 1 – read the clues: An elderly man, gradual **bilateral symmetrical** loss that is worst at **high frequencies**, poor speech discrimination in noise and a normal drum all point to presbycusis.

Step 2 – the mechanism: Degeneration of the cochlear hair cells and the auditory neurons reduces both threshold and clarity, especially where background noise competes.

Why the other options are wrong:

- A, otosclerosis: causes a conductive loss in younger adults, not this high-frequency sensorineural pattern.



- B, a 4 kHz noise notch alone: follows loud noise exposure and is not a progressive age-related loss.
- D, Meniere disease: gives episodic vertigo with fluctuating low-frequency loss and tinnitus, not steady symmetrical high-frequency loss.

Final Answer: Presbycusis ⇒

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

Q3.

Solution

Concept – malignant (necrotising) otitis externa: This is an aggressive osteomyelitis of the skull base that begins in the ear canal.

Step 1 – read the setting: An **elderly diabetic** with severe otalgia, **granulation tissue** at the bony-cartilaginous junction and skull-base spread is the classic picture.

Step 2 – name the organism: The usual cause is **Pseudomonas aeruginosa**, treated with prolonged anti-pseudomonal antibiotics and tight glycaemic control.

Why the other options are wrong:

- A, Staphylococcus aureus: causes a localised furuncle of the canal, not skull-base osteomyelitis.
- B, Candida albicans: causes otomycosis, an itchy fungal canal infection.
- C, Streptococcus pneumoniae: is a common cause of acute otitis media, not this condition.

Final Answer: Pseudomonas aeruginosa ⇒

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

Q4.

Solution

Concept – rhino-orbital mucormycosis: Mucormycosis is an invasive fungal infection that thrives in an acidic, high-glucose environment.

Step 1 – read the clues: **Diabetic ketoacidosis**, a **black necrotic eschar** on the septum and palate, and rapid orbital spread with visual loss are hallmarks of rhino-orbital mucormycosis.

Step 2 – the mechanism and treatment: The fungi invade blood vessels, causing



tissue infarction (the black eschar); management is urgent surgical debridement, amphotericin B and correction of the ketoacidosis.

Why the other options are wrong:

- A, allergic fungal rhinosinusitis: is a chronic non-invasive allergic disease, not an acute necrotising one.
- B, aspergilloma: is a fungal ball in a sinus of immunocompetent people, without this fulminant course.
- C, bacterial orbital cellulitis: does not produce a black palatal eschar in a ketoacidotic patient.

Final Answer: Rhino-orbital mucormycosis ⇒ D

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

Q5.

Solution

Concept – deviated nasal septum: A structural deviation of the septal cartilage or bone can block one side of the nose.

Step 1 – match the picture: Persistent **unilateral** obstruction with the cartilaginous septum deviated to one side, and no mass, points to a deviated nasal septum.

Step 2 – the definitive treatment: Septoplasty, a conservative operation that repositions the deviated cartilage and bone while preserving the septum, is the definitive treatment.

Why the other options are wrong:

- A, adenoidectomy: treats nasopharyngeal obstruction from enlarged adenoids, not a deviated septum.
- B, endoscopic sinus surgery: treats chronic sinus disease, not an isolated septal deviation.
- D, antral washout: drains an infected maxillary sinus and does nothing for the septum.

Final Answer: Septoplasty ⇒ C

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



Q6.

Solution

Concept – atrophic rhinitis (ozæna): Atrophic rhinitis is a chronic wasting of the nasal mucosa, turbinates and underlying bone.

Step 1 – match the features: Foul-smelling greenish crusts, a paradoxically wide nasal cavity and reduced smell, with the patient unaware of the odour (merciful anosmia), define ozæna.

Step 2 – the mechanism: Atrophy of the turbinates roomifies the nasal cavity, and stagnant secretions form the foul crusts, often colonised by *Klebsiella ozaenae*.

Why the other options are wrong:

- B, acute bacterial rhinosinusitis: is a short painful illness with purulent discharge, not chronic wide-cavity crusting.
- C, a nasal foreign body: causes unilateral foul discharge in a child, not this bilateral atrophic picture.
- D, vasomotor rhinitis: causes watery rhinorrhoea and blockage without foul crusts or a widened cavity.

Final Answer: Atrophic rhinitis (ozæna) ⇒ A

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

Q7.

Solution

Concept – recurrent respiratory papillomatosis: This is a benign but troublesome tumour of the larynx caused by a virus.

Step 1 – read the clues: A young child with hoarseness, stridor and **multiple recurring warty lesions** on the vocal cords has recurrent respiratory papillomatosis.

Step 2 – name the virus: It is caused by **human papillomavirus (HPV) types 6 and 11**, acquired during passage through an infected birth canal; the lesions recur despite repeated removal.

Why the other options are wrong:

- B, Epstein-Barr virus: is linked to nasopharyngeal carcinoma, not laryngeal papillomas.
- C, respiratory syncytial virus: causes bronchiolitis, not papillomas.
- D, herpes simplex type 1: causes oral cold sores, not recurrent laryngeal papillomatosis.



Final Answer: HPV types 6 and 11 $\Rightarrow$ **A**

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

Q8.

Solution

Concept – indications for tracheostomy: Tracheostomy secures the airway below the level of an obstruction or bypasses the upper airway for long-term ventilation.

Step 1 – pick the valid indication: **Upper airway obstruction** and the need for **prolonged mechanical ventilation** are two standard indications.

Step 2 – the rationale: It relieves obstruction above the trachea, reduces dead space and the work of breathing, and eases the care of a ventilated patient.

Why the other options are wrong:

- A, a simple sore throat: needs no airway surgery.
- C, unilateral cord palsy with a normal airway: is usually compensated and does not by itself require tracheostomy.
- D, mild allergic rhinitis: is a benign nasal condition with no airway threat.

Final Answer: Prolonged ventilation and upper airway obstruction $\Rightarrow$ **B**

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

Q9.

Solution

Concept – oral submucous fibrosis: This is a chronic, premalignant fibrotic disease of the oral mucosa.

Step 1 – read the clues: **Areca (betel) nut** chewing, progressive **trismus**, a blanched fibrotic mucosa and palpable fibrous bands define oral submucous fibrosis.

Step 2 – the significance: It is premalignant, carrying a real risk of transformation to squamous cell carcinoma, so the habit must be stopped and the patient followed up.

Why the other options are wrong:

- A, aphthous ulcers: are recurrent painful ulcers, not progressive fibrosis with trismus.



- B, oral lichen planus: shows white lacy (Wickham) striae, not dense fibrous bands.
- C, leukoplakia: is a white patch, but does not by itself cause the trismus and banding described.

Final Answer: Oral submucous fibrosis $\Rightarrow$ D

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

Q10.

Solution

Concept – Warthin tumour: Warthin tumour (papillary cystadenoma lymphomatosum) is a benign salivary gland tumour.

Step 1 – read the clues: A middle-aged **male smoker**, a soft mass in the **tail of the parotid**, and histology of papillary cystic epithelium on a **lymphoid stroma** identify Warthin tumour.

Step 2 – the associations: It is strongly linked to smoking, can be bilateral, and is the second commonest benign parotid tumour after pleomorphic adenoma.

Why the other options are wrong:

- A, pleomorphic adenoma: is the commonest parotid tumour but shows a mixed chondromyxoid stroma, not a lymphoid one.
- C, mucoepidermoid carcinoma: is malignant, with mucous and epidermoid cells, not this benign cystic-lymphoid pattern.
- D, adenoid cystic carcinoma: is malignant with perineural spread, not a soft benign smoker's tumour.

Final Answer: Warthin tumour $\Rightarrow$ B

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

Q11.

Solution

Concept – submandibular sialolithiasis: A stone in the submandibular (Wharton) duct obstructs salivary flow.

Step 1 – match the picture: A calculus (marked X) in the duct blocks saliva when the gland is stimulated, causing **pain and swelling at mealtimes** that settle between meals.



Step 2 – why the submandibular gland: Its saliva is more viscous and alkaline and its duct runs uphill, so most salivary stones form here.

Why the other options are wrong:

- A, facial nerve palsy: is not caused by a duct stone; the facial nerve runs through the parotid.
- C, continuous drooling: is the opposite of obstruction, which reduces flow.
- D, bilateral parotid swelling with dry eyes: suggests Sjogren syndrome, not a single duct stone.

Final Answer: Pain and swelling of the gland at mealtimes ⇒ **B**

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

Q12.

Solution

Concept – bilateral choanal atresia: Choanal atresia is a bony or membranous blockage of the posterior nasal opening.

Step 1 – read the story: A neonate that is **cyanotic when quiet but pink when crying**, in whom a catheter cannot be passed through either nostril, has bilateral choanal atresia.

Step 2 – the mechanism: Newborns are obligate nose breathers, so the blocked nose causes cyanosis at rest; crying forces mouth breathing and relieves it (cyclical cyanosis).

Why the other options are wrong:

- A, laryngomalacia: causes inspiratory stridor that worsens with crying, not cyclical cyanosis relieved by it.
- B, tracheo-oesophageal fistula: presents with choking and coughing on feeds, not a blocked nasal passage.
- D, Pierre Robin sequence: causes airway obstruction from a small jaw and tongue fall-back, and a catheter still passes the nose.

Final Answer: Bilateral choanal atresia ⇒ **C**

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



Q13.

Solution

Concept – grommet insertion for glue ear: A grommet (ventilation tube) ventilates the middle ear across the drum.

Step 1 – read the clues: A child with **otitis media with effusion** for over three months, a conductive loss and no response to medical treatment needs surgery.

Step 2 – the procedure: A **grommet** is placed through a myringotomy to drain the effusion and equalise middle-ear pressure, restoring hearing.

Why the other options are wrong:

- A, radical mastoidectomy: is for cholesteatoma, not a simple effusion.
- B, stapedectomy: treats otosclerosis, a conductive loss of a different mechanism.
- D, cortical mastoidectomy: is for coalescent mastoiditis, not for glue ear.

Final Answer: Grommet (ventilation tube) insertion ⇒ **C**

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

Q14.

Solution

Concept – otoacoustic emissions in newborn screening: Otoacoustic emissions (OAE) test the function of the cochlear outer hair cells.

Step 1 – match the need: Universal newborn screening needs an **objective**, quick, non-invasive test that does not depend on the baby's cooperation.

Step 2 – why OAE: Healthy **outer hair cells** emit measurable sound energy in response to a click; a present emission indicates a working cochlea, making OAE ideal for screening.

Why the other options are wrong:

- A, pure-tone audiometry: needs behavioural responses and cannot be done in a newborn.
- C, the Weber test: is a subjective tuning-fork test, useless in an infant.
- D, speech audiometry: requires language and cooperation, impossible in a neonate.

Final Answer: Otoacoustic emissions (OAE) ⇒ **B**



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

Q15.

Solution

Concept – interpreting the caloric test: The caloric test assesses the horizontal semicircular canal by irrigating the ear with warm or cold water.

Step 1 – apply the mnemonic: COWS stands for **Cold Opposite, Warm Same**, describing the direction of the fast phase of the induced nystagmus.

Step 2 – read off the answer: Cold water in a normal ear therefore drives nystagmus whose **fast phase beats to the opposite (contralateral) side**.

Why the other options are wrong:

- B, fast phase to the same side: is the response to *warm* water, not cold.
- C, no nystagmus: a normal ear does respond; absent response suggests a dead labyrinth.
- D, vertical nystagmus: the caloric test of the horizontal canal produces horizontal nystagmus, not vertical.

Final Answer: Fast phase to the opposite side $\Rightarrow$ A

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



Answer Key

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

