

NEET MDS General Anatomy

Sample Paper – 4

Duration: 11 Minutes

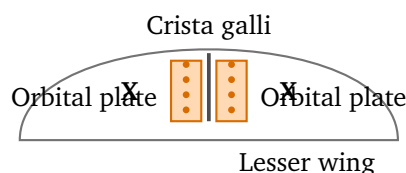
Maximum Marks: 56

Instructions

- This paper contains **14** Multiple Choice Questions (Single Best Response), modelled on the General Anatomy including Embryology and Histology content of **NEET MDS** conducted by NBEMS.
- The **14-question** length matches the number of General Anatomy items you actually meet in the real 240-question paper.
- Each correct answer carries **+4 marks**. There is **negative marking of 1 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 **11 minutes**, the pace the real computer-based test demands.

Head and Neck Osteology

Q1. The schematic below shows the floor of the anterior cranial fossa from above. The perforated plate marked **X** lies on either side of the crista galli and belongs to the ethmoid bone. The structures passing through its many small holes are:



- (A) The optic nerve
- (B) The olfactory nerve filaments
- (C) The ophthalmic division of the trigeminal nerve



(D) The internal carotid artery

Q2. The zygomatic arch is the bar of bone you palpate running horizontally in front of the ear, and the masseter takes origin from its lower border. It is formed by the union of:

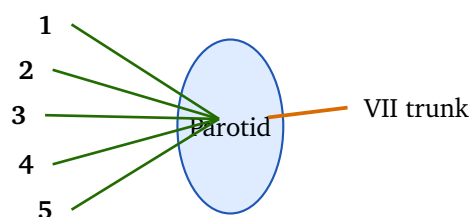
- (A) The frontal process of the zygomatic bone with the zygomatic process of the frontal bone
- (B) The zygomatic process of the maxilla with the maxillary process of the zygomatic bone
- (C) The greater wing of the sphenoid with the zygomatic bone
- (D) The temporal process of the zygomatic bone with the zygomatic process of the temporal bone

Q3. A child sustains a fracture through one side of the mandible at the age of five. Ten years later that side of the jaw is visibly short and the chin deviates towards it. The part of the mandible that must have been injured, because it carries the main growth cartilage of the bone, is:

- (A) The symphysis menti
- (B) The condylar process
- (C) The angle of the mandible
- (D) The alveolar process

Cranial Nerves

Q4. In the diagram below the facial nerve trunk enters the parotid gland and divides within it into five terminal branches, numbered 1 to 5 from above downwards. Reading them in that order, branches 1 to 5 are:



- (A) Temporal, zygomatic, buccal, marginal mandibular, cervical



- (B) Temporal, zygomatic, buccal, lingual, cervical
- (C) Temporal, zygomatic, buccal, marginal mandibular, posterior auricular
- (D) Temporal, zygomatic, masseteric, marginal mandibular, cervical

Q5. The preganglionic parasympathetic secretomotor fibres destined for the lacrimal gland leave the brainstem in the facial nerve. From the geniculate ganglion they reach the pterygopalatine ganglion by travelling in the:

- (A) Deep petrosal nerve
- (B) Lesser petrosal nerve
- (C) Greater petrosal nerve
- (D) Nerve to stapedius

Q6. A patient with a right-sided facial palsy also complains that ordinary conversation and household sounds are uncomfortably and painfully loud in the right ear. This hyperacusis tells you that the lesion has involved the:

- (A) Cochlear nerve
- (B) Greater petrosal nerve
- (C) Nerve to stapedius
- (D) Nerve to tensor tympani

**Muscles, Temporomandibular
Joint and Triangles of the Neck**

Q7. A muscle of mastication takes its main origin from the medial surface of the lateral pterygoid plate, runs downwards, backwards and laterally, and inserts on the medial surface of the ramus and angle of the mandible, so that it slings the jaw against the masseter and elevates it. This muscle is the:

- (A) Medial pterygoid
- (B) Lateral pterygoid



- (C) Masseter
- (D) Buccinator

Q8. The muscular triangle of the neck is bounded by the median plane in front, the superior belly of omohyoid above and behind, and the anterior border of sternocleidomastoid below and behind. The structures you meet within it are:

- (A) The sternohyoid and sternothyroid, with the thyroid gland, larynx and trachea lying deep to them
- (B) The submandibular gland with the hypoglossal nerve crossing it
- (C) The bifurcation of the common carotid artery with the internal jugular vein
- (D) The accessory nerve and the trunks of the brachial plexus

General Embryology and Pharyngeal Arches

Q9. The fourth and sixth pharyngeal arches build the skeleton and the muscles of the larynx, and both keep the vagus as their nerve. Which one of the following statements about them is correct?

- (A) The thyroid cartilage is a sixth arch derivative and its muscles are supplied by the recurrent laryngeal nerve
- (B) The cricothyroid is a sixth arch muscle supplied by the external laryngeal nerve
- (C) The cricothyroid is a fourth arch muscle supplied by the external laryngeal branch of the superior laryngeal nerve
- (D) The fourth arch supplies every intrinsic muscle of the larynx except cricothyroid, through the superior laryngeal nerve

Q10. Two structures that end up far apart in the adult, the thymus in the superior mediastinum and the inferior parathyroid gland on the back of the thyroid, share a single embryological source. That source is the:

- (A) Second pharyngeal pouch



- (B) Third pharyngeal pouch
- (C) Fourth pharyngeal pouch
- (D) Ultimobranchial body

Q11. A 20-year-old reports a smooth, painless, fluctuant swelling in the neck at the anterior border of sternocleidomastoid, at the junction of its upper and middle thirds. Aspiration yields turbid fluid containing cholesterol crystals. The lesion arises from:

- (A) Persistence of the second pharyngeal cleft, that is failure of the cervical sinus to obliterate
- (B) Persistence of the first pharyngeal pouch
- (C) A remnant of Rathke's pouch
- (D) Failure of the ultimobranchial body to fuse with the thyroid

General Histology

Q12. The section below shows the epithelium lining the stomach, the intestine and the gall bladder. There is a single row of tall cells resting on the basement membrane, each cell taller than it is wide, with an oval nucleus lying near the base. This epithelium is:



- (A) Simple squamous epithelium
- (B) Simple columnar epithelium
- (C) Pseudostratified columnar epithelium
- (D) Stratified cuboidal epithelium

Q13. A cartilage whose matrix is packed with a dense branching network of elastic fibres between the chondrocytes, so that it bends and springs back to shape, and which is found in the epiglottis and the auricle of the external ear, is:



- (A) Hyaline cartilage
- (B) Fibrocartilage
- (C) Calcified cartilage
- (D) Elastic cartilage

Vascular and Lymphatic Supply of the Head and Neck

Q14. An artery arises in the substance of the parotid gland as the smaller of the two terminal branches of the external carotid, ascends in front of the tragus where you can feel it against the root of the zygoma, and then divides into frontal and parietal branches on the scalp. This artery is the:

- (A) Maxillary artery
- (B) Occipital artery
- (C) Posterior auricular artery
- (D) Superficial temporal artery



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

Concept – the cribriform plate of the ethmoid: The floor of the anterior cranial fossa is formed by the orbital plates of the frontal bone, the cribriform plate of the ethmoid in the middle, and the lesser wings of the sphenoid behind.

Step 1 – identify the plate marked X: The plate lies on either side of the crista galli and is pierced by many small holes, so it is the **cribriform plate of the ethmoid**.

Step 2 – recall what sits on top of it: The olfactory bulb rests on the upper surface of the cribriform plate inside the skull.

Step 3 – recall what lies below it: The olfactory mucosa of the roof of the nasal cavity lies immediately below the plate.

Step 4 – connect the two: The **olfactory nerve filaments** run from the mucosa through the small holes to reach the bulb, so those holes transmit the first cranial nerve.

Step 5 – note the clinical point: A fracture across the cribriform plate tears these filaments and the dura with them, causing anosmia along with cerebrospinal fluid rhinorrhoea.

Why the other options are wrong:

- A, the optic nerve: leaves the middle cranial fossa through the **optic canal** in the lesser wing of the sphenoid, not through the ethmoid.
- C, the ophthalmic division of the trigeminal nerve: runs in the lateral wall of the cavernous sinus and enters the orbit through the **superior orbital fissure**.
- D, the internal carotid artery: enters the skull through the carotid canal in the petrous temporal bone, far behind the anterior cranial fossa.

Final Answer: The olfactory nerve filaments ⇒ **B**

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



Q2.

Solution

Concept – how the zygomatic arch is built: The arch is a bridge, and like any bridge it is made of two arms that meet in the middle.

Step 1 – take the front arm: The zygomatic bone sends a **temporal process** backwards from its posterior end.

Step 2 – take the back arm: The temporal bone sends a **zygomatic process** forwards from the squamous part.

Step 3 – join them: The two processes meet at an oblique zygomaticotemporal suture, and together they form the zygomatic arch.

Step 4 – attach the muscles: The masseter arises from the lower border and medial surface of the arch, and the temporal fascia is attached to its upper border.

Step 5 – note what passes beneath: The temporalis tendon passes deep to the arch on its way to the mandible, and the gap between the arch and the skull is the route from the temporal fossa into the infratemporal fossa.

Why the other options are wrong:

- A, the frontal process of the zygomatic with the zygomatic process of the frontal: this union forms the **lateral orbital margin**, not the arch.
- B, the zygomatic process of the maxilla with the maxillary process of the zygomatic: this union lies on the front of the face and forms part of the **infraorbital margin** and the cheek prominence.
- C, the greater wing of the sphenoid with the zygomatic bone: they do meet at the lateral wall of the orbit, but the sphenoid takes no part in the arch itself.

Final Answer: Temporal process of the zygomatic bone with the zygomatic process of the temporal bone ⇒ D

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

Q3.

Solution

Concept – the growth site of the mandible: The mandible ossifies in membrane, but it still needs a cartilage to grow in length, and that cartilage sits at the condyle.

Step 1 – identify the cartilage: A secondary cartilage caps the **condylar process** and persists into the second decade.



Step 2 – state what it does: It grows upwards and backwards, pushing the whole ramus and body downwards and forwards, so it lengthens the mandible.

Step 3 – apply the injury: Damage to the condyle in a growing child destroys this cartilage, so that side of the mandible stops lengthening.

Step 4 – read the deformity: The uninjured side keeps growing, so the chin deviates **towards** the injured short side, exactly as described.

Step 5 – note the sequel: Condylar injury in childhood is also the commonest cause of bony ankylosis of the temporomandibular joint with a resulting hemifacial microsomia.

Why the other options are wrong:

- A, the symphysis menti: is a midline fibrous joint that fuses by the end of the first year, so it contributes nothing to later growth.
- C, the angle of the mandible: is remodelled by the pull of masseter and medial pterygoid, but it carries no growth cartilage.
- D, the alveolar process: grows only in response to the erupting teeth and is resorbed once the teeth are lost, so it does not set the length of the bone.

Final Answer: The condylar process $\Rightarrow$ **B**

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

Q4.

Solution

Concept – the facial nerve inside the parotid gland: The nerve enters the posteromedial surface of the gland, divides within it, and its branches leave from the anterior border.

Step 1 – follow the trunk: After leaving the skull the trunk runs forward into the gland and splits into an upper temporofacial and a lower cervicofacial division.

Step 2 – count the terminal branches: Those two divisions break up into a plexus that gives **five** terminal branches, arranged like the fingers of a hand.

Step 3 – name them from above downwards: Temporal, zygomatic, buccal, marginal mandibular and cervical.

Step 4 – match to the numbers in the figure: Branch 1 is temporal, 2 zygomatic, 3 buccal, 4 marginal mandibular and 5 cervical, which is option A.

Step 5 – note the surgical point: All five are motor to the muscles of facial expression, so the plane of these branches is the plane the surgeon must find



before removing any parotid tumour.

Why the other options are wrong:

- B: the **lingual** nerve is a sensory branch of the mandibular division of the trigeminal and never runs in the parotid, so it cannot be a terminal branch here.
- C: the **posterior auricular** branch is real, but it is given off before the nerve enters the gland, so it is not one of the five terminal branches within it.
- D: the **masseteric** nerve comes from the mandibular division of the trigeminal and reaches masseter through the mandibular notch, not from the facial nerve.

Final Answer: Temporal, zygomatic, buccal, marginal mandibular, cervical ⇒ A

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

Q5.

Solution

Concept – the lacrimal secretomotor pathway: The facial nerve carries the parasympathetic supply to the lacrimal gland, and it hands those fibres over at a fixed relay station.

Step 1 – start at the nucleus: The preganglionic fibres begin in the superior salivatory (lacrimatory) nucleus in the pons.

Step 2 – follow them into the temporal bone: They travel in the nervus intermedius, join the facial nerve and reach the geniculate ganglion.

Step 3 – take the first branch: At the geniculate ganglion they leave in the **greater petrosal nerve**, which runs forward across the floor of the middle cranial fossa.

Step 4 – reach the ganglion: The greater petrosal nerve joins the deep petrosal nerve to form the nerve of the pterygoid canal, and this ends in the **pterygopalatine ganglion**, where the preganglionic fibres relay.

Step 5 – complete the route: Postganglionic fibres then travel through the zygomatic and lacrimal nerves to reach the lacrimal gland.

Why the other options are wrong:

- A, the deep petrosal nerve: is **sympathetic**, coming from the internal carotid plexus. It joins the greater petrosal but carries no parasympathetic fibres.
- B, the lesser petrosal nerve: is a branch of the **glossopharyngeal** nerve and



relays in the otic ganglion for the parotid gland.

- D, the nerve to stapedius: is purely motor to a single middle-ear muscle and carries no secretomotor fibres.

Final Answer: Greater petrosal nerve $\Rightarrow$

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

Q6.

Solution

Concept – hyperacusis and the stapedius muscle: Loudness in the middle ear is damped by a reflex, and that reflex needs an intact motor nerve.

Step 1 – recall the muscle: Stapedius arises inside the pyramidal eminence and inserts on the neck of the stapes.

Step 2 – recall what it does: When a loud sound arrives it contracts and tilts the stapes, stiffening the ossicular chain and cutting down the energy passed to the inner ear.

Step 3 – recall its nerve: Stapedius is a second arch muscle, so it is supplied by the **nerve to stapedius**, a branch given off by the facial nerve in its vertical (mastoid) segment.

Step 4 – apply the lesion: If that branch is cut, stapedius is paralysed, the damping reflex is lost, and ordinary sounds are transmitted at full force. The patient perceives them as painfully loud, which is **hyperacusis**.

Step 5 – use it to localise: Hyperacusis therefore places the facial nerve lesion **at or above** the nerve to stapedius, that is within the facial canal rather than at the stylomastoid foramen.

Why the other options are wrong:

- A, the cochlear nerve: damage to it causes sensorineural **deafness**, that is sounds become fainter, not louder.
- B, the greater petrosal nerve: injury to it causes a dry eye from loss of lacrimation, and has nothing to do with loudness.
- D, the nerve to tensor tympani: tensor tympani is a first arch muscle supplied by the **mandibular** nerve, so its nerve is not part of a facial palsy at all.

Final Answer: Nerve to stapedius $\Rightarrow$

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



Q7.

Solution

Concept – identifying a muscle from its attachments: Each muscle of mastication has a unique pair of attachments, so the attachments alone name the muscle.

Step 1 – read the origin: The deep head arises from the **medial surface of the lateral pterygoid plate**, and a small superficial head arises from the tuberosity of the maxilla.

Step 2 – read the insertion: It inserts on the **medial surface of the ramus and the angle** of the mandible, below and behind the mandibular foramen.

Step 3 – name the muscle: Only the **medial pterygoid** has this pair of attachments.

Step 4 – read the action from the direction of pull: Its fibres run downwards, backwards and laterally, so contraction pulls the angle of the mandible upwards and forwards, that is it **elevates** the jaw and helps protrude it.

Step 5 – note the sling: The medial pterygoid inside and the masseter outside form the pterygomasseteric sling around the angle, which is why the two together generate the power of the bite.

Why the other options are wrong:

- B, the lateral pterygoid: arises from the **lateral** surface of the same plate and inserts into the neck of the condyle and the disc, and it depresses and protrudes rather than elevates.
- C, the masseter: arises from the zygomatic arch and inserts on the **lateral** surface of the ramus, so it lies on the wrong side of the bone.
- D, the buccinator: is a muscle of facial expression supplied by the facial nerve. It keeps food on the occlusal table but takes no part in elevating the jaw.

Final Answer: Medial pterygoid ⇒ A

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

Q8.

Solution

Concept – the muscular triangle: The anterior triangle of the neck is split into four smaller triangles, and the muscular triangle is the lowest and most medial of them.



Step 1 – confirm the boundaries: Median plane in front, superior belly of omohyoid above and behind, anterior border of sternocleidomastoid below and behind. The question gives all three, so it is asking about contents.

Step 2 – take the superficial layer: The roof is skin, superficial fascia with platysma, and the investing layer of deep cervical fascia.

Step 3 – take the muscles inside: Immediately deep to the roof lie the **sternohyoid and sternothyroid**, the two strap muscles that depress the hyoid and larynx.

Step 4 – take the viscera: Deep to the straps lie the **thyroid gland**, the larynx and the trachea, with the oesophagus behind.

Step 5 – draw the clinical link: This is exactly why the incision for a thyroidec-tomy or a tracheostomy is planned in the muscular triangle: the strap muscles can be separated in the midline and the gland or the trachea reached without disturbing the great vessels.

Why the other options are wrong:

- B, the submandibular gland with the hypoglossal nerve: these are the contents of the **submandibular (digastric) triangle**, which lies above under the mandible.
- C, the carotid bifurcation with the internal jugular vein: these lie in the **carotid triangle**, above and lateral to the omohyoid.
- D, the accessory nerve and the brachial plexus trunks: these lie in the **pos-terior** triangle, behind sternocleidomastoid altogether.

Final Answer: Sternohyoid and sternothyroid, with the thyroid gland, larynx and trachea deep to them ⇒ A

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

Q9.

Solution

Concept – the fourth and sixth arches: These two caudal arches build the larynx, and each takes a different branch of the vagus.

Step 1 – take the cartilages: The **thyroid cartilage** and the epiglottic cartilage come from the fourth arch. The **cricoid, arytenoid, corniculate and cuneiform** cartilages come from the sixth arch.

Step 2 – take the fourth arch muscles: The fourth arch gives the **cricothyroid**, together with the constrictors of the pharynx and the levator veli palatini.



Step 3 – take the sixth arch muscles: The sixth arch gives **all the other intrinsic muscles of the larynx**, that is everything except cricothyroid.

Step 4 – attach the nerves: The nerve of the fourth arch is the **superior laryngeal** nerve, acting through its external laryngeal branch. The nerve of the sixth arch is the recurrent laryngeal nerve.

Step 5 – test the options against this: Cricothyroid is a fourth arch muscle supplied by the external laryngeal branch of the superior laryngeal nerve. That is exactly option C.

Why the other options are wrong:

- A: the thyroid cartilage is a **fourth** arch derivative, not sixth, so the option fails at its first word.
- B: the nerve is right but the arch is wrong. Cricothyroid belongs to the **fourth** arch, not the sixth.
- D: this reverses the arches. It is the **sixth** arch that supplies every intrinsic muscle except cricothyroid, and it does so through the recurrent laryngeal nerve.

Final Answer: Cricothyroid is a fourth arch muscle supplied by the external laryngeal branch of the superior laryngeal nerve ⇒ C

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

Q10.

Solution

Concept – the derivatives of the pharyngeal pouches: The endodermal pouches give the glands of the neck, and each pouch has a fixed pair of derivatives.

Step 1 – take the dorsal wing of the third pouch: It forms the **inferior parathyroid gland**.

Step 2 – take the ventral wing of the third pouch: It forms the **thymus**.

Step 3 – explain the adult positions: The thymus migrates a long way caudally into the superior mediastinum, and it drags the inferior parathyroid down with it. That is why the gland that started higher ends up lower.

Step 4 – resolve the paradox in the question: The two structures look unrelated in the adult only because of that migration. Their common origin is the **third pharyngeal pouch**.

Step 5 – note the clinical link: Failure of the third and fourth pouches to de-



velop gives DiGeorge syndrome, with an absent thymus, absent parathyroids and consequent hypocalcaemia.

Why the other options are wrong:

- A, the second pharyngeal pouch: forms the **palatine tonsil** and its crypts, not the thymus.
- C, the fourth pharyngeal pouch: forms the **superior** parathyroid gland, which stays high on the thyroid precisely because it has no thymus pulling it down.
- D, the ultimobranchial body: gives the parafollicular (C) cells of the thyroid, which secrete calcitonin.

Final Answer: Third pharyngeal pouch ⇒ B

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

Q11.

Solution

Concept – the cervical sinus and the branchial cyst: The clefts on the outside of the neck are normally buried and closed, and a cyst appears when that closure fails.

Step 1 – recall the normal event: The second arch overgrows the third and fourth arches and fuses with the cardiac eminence, burying clefts 2, 3 and 4 in a space called the **cervical sinus**.

Step 2 – recall the normal fate: The cervical sinus normally disappears completely, leaving a smooth neck.

Step 3 – apply the failure: If part of it persists, the trapped epithelium keeps secreting and a fluid-filled **branchial (cervical) cyst** forms.

Step 4 – match the site: Because the sinus lay along the second cleft, the cyst appears at the **anterior border of sternocleidomastoid at the junction of its upper and middle thirds**, which is exactly the site given.

Step 5 – match the aspirate: The lining is squamous and desquamates, so the fluid is turbid and loaded with **cholesterol crystals**. That finding is characteristic.

Why the other options are wrong:

- B, the first pharyngeal pouch: persists as the auditory tube and the middle ear cavity. A remnant would lie near the ear, not at the middle of sternocleidomastoid.



- C, a remnant of Rathke's pouch: is an ectodermal diverticulum of the stomodeum. It gives a craniopharyngioma near the pituitary, inside the skull.
- D, failure of the ultimobranchial body to fuse: would affect the C cells of the thyroid and would not produce a fluctuant lateral neck cyst.

Final Answer: Persistence of the second pharyngeal cleft, that is failure of the cervical sinus to obliterate ⇒ **A**

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

Q12.

Solution

Concept – naming an epithelium: Read two things off the section, the number of layers and the shape of the cells, and the name follows.

Step 1 – count the layers: Every cell in the figure reaches the basement membrane and every cell reaches the free surface, so there is one layer only. The epithelium is **simple**.

Step 2 – read the cell shape: Each cell is clearly taller than it is wide, so the shape is **columnar**.

Step 3 – combine the two readings: One layer of tall cells is **simple columnar epithelium**.

Step 4 – confirm with the nuclei: The nuclei are oval and all lie at the same level near the base, which is the hallmark of a true simple columnar sheet.

Step 5 – confirm with the sites: The stomach, the small and large intestine and the gall bladder are all lined by simple columnar epithelium, because their job is absorption and secretion rather than protection.

Why the other options are wrong:

- A, simple squamous: is also one layer, but its cells are flat plates with bulging nuclei, as in the alveoli and the endothelium. The figure shows tall cells.
- C, pseudostratified columnar: has all its cells touching the basement membrane but only some reaching the surface, so the nuclei sit at **different levels** and falsely suggest layers. Here every nucleus is at one level.
- D, stratified cuboidal: has two or more layers of cube-shaped cells, as in the ducts of sweat glands. The figure shows a single layer.

Final Answer: Simple columnar epithelium ⇒ **B**

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



Q13.

Solution

Concept – classifying cartilage by its matrix fibres: All cartilage has chondrocytes in lacunae. What separates the three types is the fibre that dominates the matrix.

Step 1 – read the fibre given: The question describes a dense branching network of **elastic fibres** between the chondrocytes.

Step 2 – name the type: A matrix dominated by elastic fibres defines **elastic cartilage**.

Step 3 – link the fibre to the property: Elastic fibres let the plate bend fully and then recoil to its original shape without cracking, which is what the question describes.

Step 4 – confirm with the sites: Elastic cartilage is found in the **epiglottis**, the auricle of the external ear, the wall of the external acoustic meatus and the auditory tube, and the corniculate and cuneiform cartilages of the larynx. All of these must spring back after being deformed.

Step 5 – note a useful extra: Elastic cartilage does not calcify with age, which is why the ear stays flexible throughout life while costal cartilage stiffens.

Why the other options are wrong:

- A, hyaline cartilage: has a glassy matrix with fine type II collagen fibrils and no elastic network. It covers joint surfaces and forms the costal cartilages.
- B, fibrocartilage: is dominated by thick bundles of **type I collagen**, which give tensile strength rather than recoil. It forms the intervertebral discs and the disc of the temporomandibular joint.
- C, calcified cartilage: is not a separate histological type at all. It is hyaline cartilage in which the matrix has taken up mineral, as at the zone of calcification in a growth plate.

Final Answer: Elastic cartilage ⇒ D

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



Q14.

Solution

Concept – the terminal branches of the external carotid artery: The external carotid ends inside the parotid gland by dividing into two, and only one of them reaches the scalp.

Step 1 – read the site of origin: The artery arises in the substance of the **parotid gland**, behind the neck of the mandible. That already limits the answer to a terminal branch.

Step 2 – read the size: It is the **smaller** of the two terminal branches. The larger one is the maxillary artery.

Step 3 – read the course: It ascends over the posterior root of the zygoma, **in front of the tragus**, where it can be compressed against bone and felt.

Step 4 – read the termination: About 5 cm above the arch it divides into **frontal and parietal branches** that supply the scalp.

Step 5 – name it and note the clinical point: All four features name the **superficial temporal artery**. It is the vessel biopsied when temporal arteritis is suspected, and its pulse is a standard bedside check.

Why the other options are wrong:

- A, the maxillary artery: is the **larger** terminal branch. It runs forward deep into the infratemporal fossa rather than upwards to the scalp, and it cannot be palpated.
- B, the occipital artery: is a posterior branch of the external carotid given off in the carotid triangle, and it supplies the back of the scalp, not the temple.
- C, the posterior auricular artery: is also a branch given off before the terminal division, and it runs **behind** the ear rather than in front of the tragus.

Final Answer: Superficial temporal artery ⇒ D

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



Answer Key

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

