

**SECTION – I**  
**(Course Content**

**HEAD AND NECK**

**Schedule-1.**  
**POSTERIOR TRIANGLE OF THE NECK.**

**Lecture: 02 hrs**  
**Dissection/ Prosection: 10 hrs**  
**Tutorials: 01 hr**

**LECTURES:**

- Triangles of the neck.
- Cervical fascia.

**DISSECTION/ PROSECTION:**

**Identification of relevant skeletal features:-**

temporal bone - mastoid process  
mandible - angle; lower border; symphysis menti.  
sternum - jugular notch.  
clavicle - medial end; shaft; lateral end.

**Subcutaneous structures:-** platysma, external jugular vein; lesser occipital nerve; great auricular nerve; transverse cutaneous nerve of the neck; supraclavicular nerves.

**Deep fascia:-** investing layer forming roof of the posterior triangle; prevertebral fascia; axillary sheath.

**Muscles:-** sternomastoid; trapezius; inferior belly of omohyoid; scalenus anterior; scalenus medius; levator scapulae; splenius capitis; semispinalis capitis.

**Nerves:-** accessory nerve; brachial plexus: roots, trunks, dorsal scapular; nerve to subclavius; suprascapular; long thoracic; cervical plexus; cutaneous branches; phrenic nerve.

**Arteries:-** occipital; transverse cervical; suprascapular; subclavian;

**Veins:-** suprascapular; transverse cervical; anterior jugular; subclavian.

**Lymph nodes:-** superficial cervical nodes along the external jugular vein.

**Surface anatomy:-** accessory nerve; external jugular vein.

**Applied anatomy:-** injury to roots and trunks of brachial plexus.

<b>TUTORIAL TOPICS FOR THE WEEK</b>
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| <ul style="list-style-type: none"><li>• Relevant osteology.</li><li>• Relevant radiological anatomy.</li><li>• Relevant living anatomy.</li><li>• Relevant cross-sectional anatomy.</li></ul> |
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**Schedule-2.**  
**ANTERIOR TRIANGLE OF THE NECK.**

**Lecture: 04 hrs**  
**Dissection/ Prosection: 10 hrs**  
**Tutorials: 01 hr**

**LECTURES:**

- Oesophagus
- Trachea
- Thyroid and parathyroid
- Carotid arteries

**DISSECTION/ PROSECTION:**

**Identification of relevant skeletal features:-**

Occipital bone- superior nuchal line; temporal bone- mastoid process; mandible- lower border, symphysis menti; hyoid bone- body, lesser and greater cornua; thyroid cartilage- thyroid notch, oblique line; cricoid cartilage- arch; trachea- cartilaginous rings; manubrium sterni- jugular notch.

**Subcutaneous structures:-** platysma; anterior jugular vein; cervical branch of facial nerve; transverse cutaneous nerve of neck; submental lymph nodes.

**Deep fascia:-** cervical fascia- investing layer, pretracheal, prevertebral; carotid sheath.

**Ligaments:-** median thyroid; cricothyroid; cricotracheal.

**Glands:-** parotid; thyroid; parathyroid.

**Trachea:-** cervical part.

**Oesophagus:-** cervical part.

**Muscles:-** sternomastoid; digastric; mylohyoid; levator glandulae thyroidea; sternohyoid; superior belly of omohyoid; sternothyroid; thyrohyoid;

cricothyroid; inferior constrictor of pharynx.

**Nerves:-** external laryngeal; internal laryngeal; recurrent laryngeal; hypoglossal; ansa cervicalis; vagus; sympathetic trunk.

**Arteries:-** common carotid; internal carotid; external carotid; superior thyroid; lingual; facial; occipital; posterior auricular; inferior thyroid; thyroidea ima.

**Veins:-** internal jugular; superior thyroid; middle thyroid; inferior thyroid; brachiocephalic.

**Lymph nodes:-** anterior cervical; jugulodigastric; jugulo-omohyoid.

**Surface anatomy:-** thyroid gland; common carotid artery.

**Applied anatomy:-** tracheostomy; laryngostomy.

**TUTORIAL TOPICS FOR THE WEEK**

- Relevant osteology.
- Relevant radiological anatomy.
- Relevant living anatomy.
- Relevant cross-sectional anatomy.

**Schedule-3.**  
**FACE AND SCALP.**

**Lecture: 01 hrs**  
**Dissection/ Prosection: 10 hrs**  
**Tutorials: 01 hr**

**LECTURES:**

- Scalp and face - blood supply, nerve supply & applied anatomy.

**DISSECTION/ PROSECTION:**

*Face*

**Identification of relevant skeletal features:-** nasal bone- root of nose; maxilla- body, processes, infra-orbital foramen; zygomatic bone- arch, zygomatico-orbital, zygomatico-facial and zygomaticotemporal foramina; mandible- ramus, angle, body, symphysis, mental foramen.

**Subcutaneous structures:-** palpebral branch of the lacrimal; infratrochlear; external nasal; infraorbital; zygomatico-facial; buccal; mental and great auricular nerves.

**Muscles:-** orbicularis oculi; orbicularis oris; buccinator and other muscles of facial expression.

**Nerves:-** temporal; zygomatic; buccinator; mandibular and cervical branches of facial nerve.

**Arteries:-** facial; transverse facial; buccal; infra-orbital branches of maxillary artery.

**Veins:-** facial and transverse facial veins.

**Surface anatomy:-** parotid duct; facial artery (pulse).

**Applied anatomy:-** scalp wounds; 'dangerous area' of scalp.

*Scalp*

**Identification of relevant skeletal features:-**

1. skull- vault and base; 2. individual bones- frontal, parietal, temporal, occipital; 3. sutures- sagittal, coronal, lambdoid; 4. meeting point of these sutures- bregma, lambda, pterion and asterion; 5. eminences- frontal, parietal; 6. landmarks- nasion, superior orbital margins, supra-orbital notch; temporal lines; mastoid process;inion; external occipital protuberance; superior nuchal line; 7. Emissary veins- parietal; mastoid; condylar etc.,

**Subcutaneous structures:-** supratrochlear nerve and vessels; supraorbital nerve and vessels; zygomatico-temporal nerve and superficial temporal vessels; great auricular nerve; lesser occipital nerve; greater occipital nerve and vessels; third occipital nerve; posterior auricular vessels.

**Deep fascia:-** temporalis fascia.

**Muscles:-** occipitofrontalis muscle; epicranial aponeurosis.

**Nerves:-** posterior auricular artery and temporal branch of facial.

**Lymph nodes:-** occipital; mastoid.

**Applied anatomy:-** scalp wounds; 'dangerous area' of scalp.

**TUTORIAL TOPICS FOR THE WEEK**

- Relevant osteology.
- Relevant radiological anatomy.
- Relevant living anatomy.
- Relevant cross-sectional anatomy.

**Schedule-4.**  
**CRANIAL CAVITY.**

**Lecture: 02 hrs**  
**Dissection/ Prosection: 10 hrs**  
**Tutorials: 01 hr**

**LECTURES:**

- Dural venous sinuses, cavernous sinus; internal jugular vein.
- Pituitary gland.

#### DISSECTION/ PROSECTION:

**Identification of relevant skeletal features:-** skull- vault; inner and outer tables; diploe.

**Anterior cranial fossa:-** ethmoid bone- cribriform plate; crista galli; frontal bone- frontal crest, orbital plates; sphenoid bone- jugum sphenoidale, lesser wing; anterior clinoid process; foramina- olfactory, anterior and posterior ethmoidal; optic canal; foramen caecum.

**Middle cranial fossa:-** sphenoid bone- body, sella turcica, dorsum sellae, posterior clinoid process, basisphenoid, groove for cavernous sinus, greater wing; temporal bone- superior surface of petrous part, squamous part, groove for posterior branch of middle meningeal artery and vein; foramina- superior orbital fissure, foramen rotundum, canaliculus innominatus, foramen lacerum, foramen ovale, foramen spinosum, hiatuses for greater and lesser petrosal nerves.

**Posterior cranial fossa:-** temporal bone- posterior surface of petrous part, squamous part, mastoid part; groove for sigmoid sinus; occipital bone- groove for superior sagittal sinus, internal occipital crest, groove for transverse sinus; parietal bone- postero-inferior angle, groove for sigmoid sinus; foramina-internal acoustic meatus, jugular foramen; hypoglossal canal, foramen magnum.

**Dural folds:-** falx cerebri; falx cerebelli; tentorium cerebelli; diaphragma sellae; cavum trigeminale.

**Dural venous sinuses:-** superior sagittal sinus, inferior sagittal sinus, straight sinus, occipital sinus, sphenoparietal sinus, cavernous sinus, superior petrosal sinus, inferior petrosal sinus, transverse sinus, sigmoid sinus.

**Emissary foramina:-** foramen caecum; emissary sphenoidal foramen; parietal foramen; mastoid foramen; condylar canal.

**Cranial nerves:-** olfactory; optic, oculomotor; trochlear; trigeminal; abducent; facial; vestibulocochlear; glossopharyngeal, vagus; accessory; hypoglossal.

**Arteries:-** middle meningeal (extradural); internal carotid and its branches.

**Surface anatomy:-** middle meningeal artery.

**Applied anatomy:-** subdural and extradural haemorrhage; fracture of base of skull.

#### TUTORIAL TOPICS FOR THE WEEK

- Relevant osteology.
- Relevant radiological anatomy.
- Relevant living anatomy.
- Relevant cross-sectional anatomy.

#### Schedule-5.

#### ORBIT AND LACRIMAL APPARATUS.

Lecture: 03 hrs

Dissection/ Prosection: 10 hrs

Tutorials: 01 hr

#### LECTURES:

- Lacrimal apparatus.
- Extra-ocular muscles: innervation and action.
- Ciliary ganglion; superior orbital fissure.

#### DISSECTION/ PROSECTION:

**Identification of relevant skeletal features:-**

1. bony orbit- axis; 2. Medial wall- frontal process of the maxilla; lacrimal; orbital plate of ethmoid; body of the sphenoid; 3. Floor- zygomatic; maxilla; orbital process of palatine; 4. Lateral wall- zygomatic; greater wing of sphenoid; 5. roof- orbital plate of the frontal; lesser wing of the sphenoid; 6. Openings- optic canal; superior orbital fissure; inferior orbital fissure; infraorbital foramen; supraorbital notch or foramen; nasolacrimal canal; anterior ethmoidal foramen; zygomatico-orbital foramen.

**Fossa for lacrimal gland; Whitnall's tubercle**

**Fascia bulbi:-** check ligaments; suspensory ligament.

**Extra-ocular muscles:-** levator palpebrae superioris; superior rectus; inferior rectus; medial rectus; lateral rectus; superior oblique; inferior oblique.

**Nerves:-** optic; ophthalmic division of trigeminal; oculomotor; trochlear; abducent; zygomatic; infra-orbital.

**Ciliary ganglion.**

**Arteries:-** ophthalmic artery and its branches.

**Veins:-** superior and inferior ophthalmic.

**Lacrimal apparatus:-**

Lacrimal gland; lacrimal ducts; conjunctival sac; lacus lacrimalis; lacrimal punctum; lacrimal canaliculus; lacrimal sac; nasolacrimal duct; nasolacrimal fold.

**Surface anatomy:-** supraorbital foramen; infraorbital foramen.

**Applied anatomy:-** spread of infection to cavernous sinus; occlusion of central artery of retina; lesions of oculomotor, trochlear and abducent nerves.

#### TUTORIAL TOPICS FOR THE WEEK

- Relevant osteology.

- Relevant radiological anatomy.
- Relevant living anatomy.
- Relevant cross-sectional anatomy.

**Schedule-6.**  
**PAROTID AND INFRATEMPORAL FOSSA.**

**Lecture: 03 hrs**  
**Dissection/ Prosection: 10 hrs**  
**Tutorials: 01 hr**

**LECTURES:**

- Parotid gland and seventh cranial nerve.
- Temporomandibular joint
- Maxillary artery.

**DISSECTION/ PROSECTION:**

*Parotid and infratemporal regions*

**Identification of relevant skeletal features:-**

1. mandible - body; mylohyoid and groove; mental foramen; angle; ramus; condylar process (head, neck); pterygoid fovea; coronoid process; mandibular notch; lingula; mandibular foramen.
2. temporal bone - squamous; petromastoid; tympanic plate; styloid process; zygomatic process; external acoustic meatus; mastoid process; stylomastoid foramen; squamo-tympanic and petro-tympanic fissures; mandibular fossa; articular tubercle; postglenoid tubercle.
3. sphenoid bone - greater wing; infratemporal crest; lateral and medial pterygoid plates; scaphoid fossa; spine; foramen ovale; foramen spinosum; emissary sphenoidal foramen.
4. Maxilla - tuberosity; posterior surface.

*Pterygomaxillary fissure; pterygopalatine fossa*

**Deep fascia:-** capsule of the parotid gland.

**Ligaments:-** stylomandibular; sphenomandibular.

**Parotid gland:-** surfaces and relations; duct; facial nerve and branches; retromandibular vein; external carotid artery; lymph nodes; nerve supply to the gland.

**Muscles:-** masseter; temporalis; pterygoids.

**Nerves:-** mandibular and branches; chorda tympani; maxillary and branches.

**Arteries:-** maxillary artery and branches.

**Veins:-** pterygoid plexus.

**Surface anatomy:-** parotid duct.

**Applied anatomy:-** facial palsy; parotid infections; parotid tumours.

*Temporomandibular Joint:-*

**Muscles in relation to the capsule:-** lateral pterygoid.

**Capsule:-** attachments.

**Ligaments:-** lateral ligaments.

**Accessory ligaments:-** sphenomandibular; stylomandibular.

**Intra-articular structures:-** articular disc.

**Synovial membrane:-** reflection.

**Movements:-** protrusion, retraction; elevation, depression; side to side movements.

**Nerve supply:-** auriculotemporal nerve.

**Blood supply:-** superficial temporal artery.

**Applied anatomy:-** dislocation; mandibular nerve palsy.

**TUTORIAL TOPICS FOR THE WEEK**

- Relevant osteology.
- Relevant radiological anatomy.
- Relevant living anatomy.
- Relevant cross-sectional anatomy.

**Schedule-7.**  
**SUBMANDIBULAR REGION AND DEEP DISSECTION OF THE NECK.**

**Lecture: 02 hrs**  
**Dissection/ Prosection: 10 hrs**  
**Tutorials: 01 hr**

## LECTURE:

- Submandibular gland, sublingual gland; innervation.
- Lymphatic drainage of the head and neck.

## DISSECTION/ PROSECTION:

### *Submandibular region.*

#### **Identification of relevant skeletal features:-**

1. mandible - lower border; digastric fossa; superior and inferior mental spine.
2. hyoid bone - body, lesser and greater cornua.
3. temporal bone - mastoid and styloid processes; mastoid notch.

**Ligaments:-** stylohyoid ligament.

**Submandibular gland:-** surfaces; relations; duct; nerve supply.

**Muscles:-** digastric; mylohyoid; hyoglossus; genioglossus; geniohyoid; styloglossus; middle and superior constrictors of the pharynx.

**Nerves:-** lingual; inferior alveolar; facial; glossopharyngeal; hypoglossal; *submandibular ganglion*.

**Arteries:-** facial, lingual.

**Veins:-** facial; common facial; retromandibular.

**Surface anatomy:-** facial artery.

**Applied anatomy:-** salivary calculi; veins and lymph nodes in relation to submandibular gland.

### *Deep Dissection of the neck.*

#### **Identification of relevant skeletal features:-**

cervical vertebra - transverse processes, foramen transversaria;

first rib - neck, shaft, scalene tubercle.

**Deep fascia:-** prevertebral.

**Muscles:-** sternomastoid; scalenus anterior; scalenus medius and posterior; rectus capitis anterior; rectus capitis lateralis; longus colli; longus capitis.

**Nerves:-** glossopharyngeal; vagus; accessory; hypoglossal; sympathetic trunk; cervical plexus.

**Arteries:-** common carotid; internal carotid; external carotid; subclavian; vertebral.

**Veins:-** internal jugular; subclavian; brachiocephalic; vertebral.

**Lymphatic ducts:-** thoracic; right lymphatic.

**Surface anatomy:-** apex of lung and pleura; carotid arteries; subclavian artery; accessory nerve.

**Applied anatomy:-** fascial spaces of the neck; jugular venous pulse; vertebro-basilar insufficiency; thoracic duct at the root of the neck.

#### **TUTORIAL TOPICS FOR THE WEEK**

- Relevant osteology.
- Relevant radiological anatomy.
- Relevant living anatomy.
- Relevant cross-sectional anatomy.

### **Schedule-8.**

#### **DEEP STRUCTURES OF THE BACK OF THE NECK AND TRUNK.**

**Lecture: 02 hrs**  
**Dissection/ Prosection: 10 hrs**  
**Tutorials: 01 hr**

## LECTURE:

- Joints of the vertebral column- atlantooccipital, atlanto-axial.
- Joints of the vertebral column- joints between vertebral bodies.

## DISSECTION/ PROSECTION:

### *Deep dissection of the back.*

#### **Identification of relevant skeletal features:-**

Occipital bone - superior and inferior nuchal lines; foramen magnum, temporal bone - mastoid process;

vertebral column - atlas (posterior tubercle, posterior arch, transverse processes); axis- odontoid process, spine, vertebral arch; typical vertebrae- spinous process, laminae, transverse processes; sacrum- sacral canal; coccyx.

**Subcutaneous structures:-** greater occipital nerve; occipital artery.

**Deep fascia:-** thoracolumbar.

**Ligaments:-** supraspinous; interspinous; ligamenta flava; posterior atlanto-

occipital membrane.

**Muscles:-** splenius capitis; semispinalis capitis; rectus capitis posterior major and minor; obliquus capitis posterior major and minor; obliquus capitis superior and inferior; erector spinae.

**Nerves:-** suboccipital; dorsal rami of spinal nerves.

**Arteries:-** deep cervical; vertebral.

**Veins:-** suboccipital plexus.

**Surface anatomy:-** transverse process of atlas.

**Applied anatomy:-** cisternal puncture.

### *Spinal cord and meninges*

**Coverings:-** dura mater; arachnoid mater; pia mater and its processes.

**Spaces:-** epidural containing vertebral venous plexus; subdural containing lymph; subarachnoid containing cerebrospinal fluid.

**Spinal cord:-** anteromedian sulcus; posteromedian fissure; antero- and posterolateral fissures; cervical and lumbar enlargements; conus medullaris.

**Spinal nerves:-** 31 pairs; rootlets; roots; ganglia; trunk; cauda equina.

**Arteries:-** anterior and posterior spinal; spinal branches of intersegmental arteries.

**Veins:-** longitudinal venous channels.

**Surface anatomy:-** emergence of spinal nerves in relation to the vertebrae; conus medullaris.

**Applied Anatomy:-** lumbar puncture.

### *Joints of the skull; Joints of the vertebral Column; Sacro-iliac joint.*

**Joints of the skull:-** sutural joints between the skull bones; primary cartilagenous joint between basi-sphenoid and basi-occiput; peg and socket joints between teeth and alveolar margins.

**Joints of the vertebral column:-** secondary cartilagenous joints between vertebral bodies; synovial joints between atlas and occiput; synovial joints between odontoid process of axis and atlas; synovial joints between the articular processes of the adjacent vertebrae.

**Ligaments:-** atlanto-occipital membranes; membrana tectoria; cruciate ligament; transverse ligament of the atlas; apical; alar.

**Sacro-iliac joint:-** synovial type.

**Ligaments:-** ventral, dorsal and interosseous sacro-iliac ligaments; iliolumbar; sacrotuberous; sacrospinous.

#### **TUTORIAL TOPICS FOR THE WEEK**

- Relevant osteology.
- Relevant radiological anatomy.
- Relevant living anatomy.
- Relevant cross-sectional anatomy.

#### **SPECIAL LECTURES/ PROSECTIONS DEMONSTRATIONS.**

**( Each topic of two hours duration )**

**Total: 12 hrs**

1. Nasal cavity and paranasal air sinuses
2. Oral cavity; tongue; tonsil.
3. Soft palate and pharynx.

4. Larynx
5. Eye
6. Ear- external & middle.

### **SECTION – II (Course Content under Level – I, II, III) LECTURES OUTLINE OF LECTURES**

S.No	TOPIC	MUST KNOW	SHOULD KNOW	COULD KNOW
1.	SCALP	1. Layers: Skin,Connective		

		<p>tissue (superficial fascia &amp; deep fascia), Aponeurotic layer, Loose connective tissue and Periosteum.</p> <p>2. 2. Contents of connective tissue layer: vessels, nerves</p> <p>3. Lymphatic drainage</p> <p>4. a. Applied anatomy: Sebacous cysts Closed wounds-painful Open wounds bleed profusely Emissary veins- Black eye Sfaety valve haematoma</p>	<p>5. b. Applied anatomy: Inverted flame shaped Haemorrhage Cephalohaematoma</p>	
2.	CERVICAL FASCIA	<p>1. Components- General investing layer, pretracheal layer, prevertebral layer</p> <p>2. General investing layer - horizontal extent, vertical extent(cranial and caudal attachments), features</p> <p>3. Pretracheal layer - horizontal extent, vertical extent and features</p> <p>4. Prevertebral layer - horizontal extent, vertical extent, features</p>	<p>5. Axillary sheath fascial spaces 6. a. Ligament of Berry</p>	6. b. Cold Abscess, other abscesses
3.	POSTERIOR TRIANGLE	<p>1. Boundaries-Anterior, Posterior, Base Apex, Roof, Floor</p> <p>2. Subdivisions - occipital, omoclavicular</p> <p>3. Contents</p> <p>4. Applied 4a. Compression of subclavian artery to stop bleeding in upper limb 4b. Wry neck</p>	4c. Air embolism	4d. Phrenic crush 4e. Accessory phrenic nerve
4.	ORBIT	<p>1. Extrinsic muscles -Recti /Obliques / LPS (Origin, insertion, nerve supply - LR6SO4/3) Actions of muscles</p> <p>2. Movement of eyeball in 3 axis - Vertical - adduction/abduction Horizontal- elevation/depression Ap-Intorsion/Extorsion Muscles causing these movements</p> <p>3. a. Applied Anatomy</p>	3. b. Stability of eye Vertical - suspensory lig AP-bony attachment of Recti, orbital fat, forward pull of Obliques	
5.	LACRIMAL APPARATUS	<p>1. Components- Lacrimal gland, ducts, conjunctival sac, Lacrimal puncta, canaliculi and sac, nasolacrimal duct</p> <p>4. Nerve supply of lacrimal gland</p>	<p>1. Parts of lacrimal gland and relation to LPS 2. Flow of lacrimal fluid</p>	
6.	THYROID GLAND	<p>1. Components - lobes, isthmus</p> <p>2. Isthmus - Extent, surfaces &amp; borders, Relations, Capsules(true and false), Blood</p>	4a. Pyramidal lobe	

		<p>supply(superior thyroid, inferior thyroid artery, relation to the nerves) venous drainage (superior, middle and inferior thyroid veins), nerve supply, lymph drainage</p> <p>5a. Applied Anatomy Pertaining to posteromedial border Thyroidectomy - before removal and during removal</p>	<p>4b. Levator glandulae thyroidae</p> <p>5b. Ligament of berry Venous plexus Thyroidea ima Twigs from Oesophageal and tracheal branches Vein of Kocher</p>	<p>6. Synthesis of throxine and its regulation</p>
7.	PAROTID	<p>1. Situation 2. Shape 3. Extent - sup, inf, ant, post 4. Borders - sup, ant, post, med 5. Surfaces - sup, superficial, medial(anteromedial, postermedial) 6. Relations - structures embedded in parotid - lymph nodes, retromandibular vein, external carotid artery, fascial nerve</p> <p>8. Capsules 9. Parotid duct - size, lumen, opening 10. Blood supply 11. Nerve supply(otic ganglion) 12. Applied anatomy - Painful swelling(swelling affects opening of mouth, parotidectomy - incision parallel to zygomatic bone(preserve VII nerve) Parotid abscess</p>	<p>7.Parotid space - structures in depth of parotid space</p> <p>13. Development</p>	
8.	TEMPORAL AND INFRATEMPORAL REGION	<p>1. Muscles (Temporalis, Masseter) Attachments &amp; Actions 2. Boundaries 3. Contents a. Superficial - Pterygoid muscles, pterygoid venous plexus, Sphenomandibular ligament, maxillary artery b. Deep - mandibular nerve, cauda tympani, otic ganglion c. Origin, insertion and actions of muscles 4. Mandibular nerve - course, relations and branches</p>	<p>4. Branches of maxillary artery 5. Cauda tympani 6. Otic ganglion - connections and branches</p>	<p>5. # spine of sphenoid</p>
9.	JUGULAR VEINS	<p>1. Formation 2. Course 3. Relations 4. Tributaries</p>	<p>5. Applied anatomy Queckenstedt's test Jugular venous pressure</p>	<p>6. Anterior and Oblique Jugular veins</p>
10.	TEMPEROMANDIBULAR JOINT	<p>1. Classification 2. Articular surfaces 3. Capsules and ligaments capsules Lateral ligament Sphenomandibular ligament</p>		



		<p>Stylomandibular ligament</p> <p>4. Articular disc</p> <p>5. Synovial membrane</p> <p>6. Blood supply</p> <p>7. Nerve supply</p> <p>8a. Movements</p> <p>9. Applied Anatomy</p> <p>a. Dislocation</p>	<p>8b. Sequence of movements for opening of mouth</p> <p>9b. Treatment of dislocation</p>	<p>10. Stability of TM joint</p>
11.	TONGUE	<p>1. Functions</p> <p>2. Components- root, body, inferior surface, dorsal surface(Anterior 2/3<sup>rd</sup>, posterior 1/3<sup>rd</sup>)</p> <p>3. Muscles: a. extrinsic</p> <p>4. Blood supply - arterial / venous</p> <p>5. Nerve supply - motor, general sensory supply, taste sensations, proprioception</p> <p>6. Lymphatic drainage</p> <p>7. Applied anatomy</p> <p>Tongue pulled anteriorly to prevent choking</p> <p>Pulled anteriorly to prevent bleeding</p> <p>Paralysis of XII nerve</p>	<p>3. b. Muscles: intrinsic</p>	<p>8. Carcinoma tongue operation</p> <p>9. Alternate taste pathway</p>
12.	SUBMANDIBULAR REGION	<p>1. Boundaries</p> <p>2. Contents</p> <p>3a. Submaxillary salivary glands Extent, components (superficial and deep)</p> <p>Relations of the three surfaces</p> <p>Wharton's duct</p> <p>Blood supply</p> <p>3b. Nerve supply-Submandibular ganglion</p>		
13.	PHARYNX	<p>1. Introduction</p> <p>2. Communicates with oral cavity, nasal cavity and laryngeal cavity</p> <p>3. Relations</p> <p>4. Musculature</p> <p>Longitudinal</p> <p>Stylopharyngeus</p> <p>Palatopharyngeus</p> <p>Salpingopharyngeus</p> <p>Circular muscles</p> <p>Constrictors( superior, middle and inferior )</p> <p>Blood supply - arterial, venous</p> <p>Nerve supply - motor, sensory</p> <p>6. Interior (oropharynx, Nasopharynx, and Laryngopharynx)</p> <p>Piriform fossa</p>	<p>5. Origin, Insertion and parts of constrictors</p> <p>8. a. Applied anatomy:</p>	<p>7. b. Applied anatomy</p> <p>Space of Morgagni</p> <p>Killian</p> <p>Jamison space</p> <p>Pharyngeal diverticula</p>
14.	PALATE	<p>1. Introduction and function</p> <p>2. Features</p> <p>Anterior or oral surface</p> <p>Borders</p> <p>3. Muscles of soft palate</p> <p>Tensor palati</p> <p>Levator palati</p> <p>Palatoglossus</p> <p>Palatopharyngeus</p> <p>6. Blood supply- arterial and venous</p> <p>7. Nerve supply - Motor, Sensory(General sensations and taste</p>	<p>3. Origin, Insertion and actions of muscles of soft palate</p>	

		sensations), Secretomotor supply 8. a. Applied anatomy : Cleft palate	9. b. Applied anatomy: Process of deglutition	Passavant's ridge
15.	PALATINE TONSIL	1. <del>Waldeyers' ring</del> 2. Features- 2 poles, 2 borders and 2 surfaces 3. Blood supply- arterial and venous 4. Nerve supply 5. Applied anatomy - Tonsillitis, tonsillectomy	2a. Surface relations	5b. Care during tonsillectomy
16.	LARYNX	3. Components - Cartilages Ligaments Muscles Membranes Vocal cords Vestibular folds Rima glottides 3b. Joints formed by the cartilages 5. Muscles - Extrinsic and intrinsic 7. Blood supply 8. Lymphatic drainage 9. Nerve supply 10. Functional considerations 10. Applied anatomy Diphtheria Tracheostomy Cadaveric position Damage to recurrent laryngeal nerve	3a. Cartilages Unpaired - epiglottis, thyroid, cricoid Paired - Arytenoid, Corniculate, cuneiforms 4. Ligaments Extrinsic Median thyrohyoid Ligament Lateral thyrohyoid Thyroepiglottic Hyoepiglottic Cricotracheal lig. Intrinsic Median cricothyroid Lateral cricothyroid Cricovocal membrane 6. Origin, Insertion, Direction of muscle fibres and action of intrinsic muscles	1. Size: Male, female
17a.	EXTERNAL EAR	1. Components - Pinna, External Acoustic meatus 3. External acoustic meatus - Length Two parts Direction Lining Tympanic membrane 4. Blood supply 5. Nerve supply	2. Pinna: Parts of pinna, structure and nerve supply	
17b.	MIDDLE EAR	1. Boundaries - ant wall, post wall, medial wall, lateral wall, roof, floor 4. Ossicles - Malleus, Incus and stapes	2. Features seen at the boundaries 5. Muscles - Tensor Tympani and stapedius	3. Applied anatomy Otitis media Infection of middle ear in children Meningitis
18.	HYPOGLOSSAL NERVE	1. Nerve components 2. Nucleus 3. Course Intraneural Intracranial Extracranial 4. Branches - meningeal and motor	2a. Location of Nucleus	

		<p>Tympanic Branches Nerve to Stylopharyngeus Carotid sinus branch Pharyngeal branch Tonsillar branch</p>		<p>5. Applied Thrombosis of anterior spinal artery care of XII nerve during operation and lingual artery</p>
19.	GLOSSOPHARYNGEAL NERVE	<p>1.Components 2. Nuclei  3. Course Intraneural Intracranial Extracranial  4. Branches - Tympanic Branches Nerve to Stylopharyngeus Carotid sinus branch Pharyngeal branch Tonsillar branch</p>	2a. Position of Nuclei	<p>5. Applied anatomy - Eagles' syndrome</p>
20.	FACIAL NERVE	<p>1. Nerve components 2. Nuclei  3. Course Intraneural Intracranial (Motor root and sensory root - greater superficial petrosal and chorda tympani) Extracranial  4. Branches</p>	2a. Position of Nuclei	<p>5. Applied Anatomy Supranuclear lesion Nuclear lesion Infranuclear lesion</p>
21.	OCULOMOTOR NERVE	<p>1. Nerve Components 2. Nuclei  3. Course Intraneural Intracranial Extracranial  4. Branches 5b. Light reflex, Accommodation reflex, Argyll Robertson's pupil</p>	<p>2a. Position of Nucleus 2b. Components of nucleus</p>	<p>5a. Applied Anatomy - weber's syndrome</p>
22.	ABDUCENT & TROCHLEAR	<p>1. Nerve components 2. Nuclei  3. Course- intraneural , intracranial and extracranial  4. Muscles supplied by the nerves</p>	2a. Position of Nuclei	<p>5. Applied anatomy - Paralysis of muscles supplies - squint / Diplopia</p>
23.	DURAL VENOUS SINUSES	<p>1. Difference between veins and sinuses 2. Classification Unpaired - Superior sagittal, Inferior sagittal, straight sinus, occipital sinus Paired - Sphenoparietal, cavernous, superior petrosal sinus, inferior petrosal sinus, transverse sinus, sigmoid sinus 3. Flow of blood in sinuses 4. Cavernous sinuses - situation Formation Extent Size</p>		<p>5. b. Applied</p>

		Relations Tributaries 5. a. Applied anatomy : Dangerous area of face thrombosis of cavernous sinus		Anatomy Queckenstedt's test
24	ANTERIOR TRIANGLE OF THE NECK	1. Boundaries and subdivisions 2. Carotid triangle : Boundaries and contents Carotid arteries 3. Trachea: extent and relations 4. Oesophagus: extent and relations	4b. Sites of constrictions 5. Parathyroids	
25	HYPOPHYSIS CEREBRI	1. Parts, Location, Relations 2. Blood supply 3. Microscopic structure 4. Development	5. Hormones secreted 6. Tumours of the pituitary	Hypophysectomy
26	JOINTS OF THE HEAD AND NECK	1. Atlanto occipital: Ligaments, movements and muscles causing these movements 2. Atlanto axial: Ligaments, movements and muscles causing these movements	3. Joints between the vertebral bodies	4. Applied anatomy: Spondylosis

**SECTION – II**  
**(Course Content under Level – I, II, III)**  
**DISSECTION**  
**Learning Objectives of Dissection**

S.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
1.	SCALP	<ul style="list-style-type: none"> <li>Place a wooden block under the head end and raise the head</li> <li>Make a median incision in the skin of scalp from root of nose to external occipital protuberance</li> <li>Make a coronal incision from middle of median incision to the tragus on both sides. Continue this over the auricle to mastoid process and zygomatic arch.</li> <li>Reflect the skin flaps, taking care not to damage Ns &amp; Vs. in cutaneous tissue</li> <li>Expose upper</li> </ul>	<ul style="list-style-type: none"> <li>Main layers of Scalp Skin Dense CT Galea</li> <li>Superficial temporal Vs</li> <li>Frontal belly of frontooccipitalis</li> <li>Lateral attachment of epicranial aponeurosis</li> <li>Occipital belly of frontooccipitalis</li> </ul>	<ul style="list-style-type: none"> <li>Deep layers of scalp LCT Pericranium</li> <li>Auriculotemporal N</li> <li>Great auricular N</li> <li>Lesser occipital N</li> </ul>	<ul style="list-style-type: none"> <li>Brs. of supratrochlear and supraorbital Ns. &amp; Vs.</li> <li>Temporal brs. of VII CN</li> </ul>	1. Main layers of scalp 2. Muscles frontalis occipitalis epicranial aponeurosis 3. Nerves supratrochlear auriculotemporal 4. Vessels supraorbital supratrochlear superficial temporal	<ul style="list-style-type: none"> <li>Open wounds of scalp bleed profusely</li> <li>Scalp swelling are painful</li> </ul>
						<b>APPLIED ASPECTS</b>	
						<ul style="list-style-type: none"> <li>Sebaceous cysts</li> <li>Clinical importance of mobility of superficial layers of scalp on pericardium and suturing of scalp wounds</li> </ul>	

	<ul style="list-style-type: none"> <li>part of orbicularis oculi. Trace &amp; define</li> <li>Clean and identify nerves behind the auricle</li> <li>Expose ant. part of epicranial aponeurosis. Note its attachment into temple on superior temporal line</li> <li>Define attachments of occipitalis and epicranial aponeurosis on highest nuchal lines.</li> </ul>	<ul style="list-style-type: none"> <li>Epicranial aponeurosis</li> </ul>		<ul style="list-style-type: none"> <li>3<sup>rd</sup> occipital N</li> </ul>	<ul style="list-style-type: none"> <li>Incised margins of galea aponeurotica - medicolegal importance</li> <li>Dangerous area of scalp and emissary veins</li> <li>Black eye</li> <li>Traumatic cephalohydrocoele</li> <li>Pedicles of scalp flaps with vessels and nerves for grafts in plastic surgery</li> <li>Clinical testing of VII CN</li> </ul>
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S.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
2	SUPERFICIAL DISSECTION OF FACE	<ul style="list-style-type: none"> <li>Make a median incision from root of nose to chin and horizontal incision from angle mouth to post. border of ramus of mandible</li> <li>Reflect skin flaps. Expose major facial muscles taking care not to cut through them</li> <li>Pull eyeball laterally &amp; identify</li> <li>Detach risorius and reflect it along with platysma towards corner of mouth</li> <li>Expose facial of masseter and note their relations and course</li> </ul>	<ul style="list-style-type: none"> <li>Orbicularis oculi</li> <li>Platysma</li> <li>Depressor anguli oris</li> <li>Depressor labii inferioris</li> <li>Orbicularis oris</li> <li>Buccinator</li> </ul>	<ul style="list-style-type: none"> <li>Zygomatikus major &amp; minor</li> <li>Levator labii superioris</li> </ul>	<ul style="list-style-type: none"> <li>Different parts of orbicularis oculi</li> <li>Risorius</li> <li>Levator labii sup. Aleque nasi</li> <li>Proserus nasalis</li> <li>Mentalis</li> </ul>	<ul style="list-style-type: none"> <li>Muscles of facial expression</li> <li>Facial artery</li> <li>Facial vein</li> </ul>	<ul style="list-style-type: none"> <li>Embryological basis of cutaneous innervation of face</li> <li>Actions of facial muscle</li> <li>Bleeding from both cut ends of artery</li> </ul>
			<ul style="list-style-type: none"> <li>Facial artery</li> <li>Facial vein</li> </ul>		<ul style="list-style-type: none"> <li>Medial palpebral lig. and orbital part of orbicularis oculi</li> </ul>	<b>APPLIED ASPECTS</b>	
						<ul style="list-style-type: none"> <li>Palpation of facial artery</li> <li>Clinical testing of facial muscles &amp; VII CN</li> <li>Suturing of facial wounds</li> <li>Dangerous area of face</li> </ul>	

S.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
3	POSTERIOR TRIANGLE	<ul style="list-style-type: none"> <li>Make an incision from</li> </ul>				1. Boundaries and	<ul style="list-style-type: none"> <li>Deep cervical fascia</li> </ul>

		mastoid process to sternal end of clavicle along the middle of SCM <ul style="list-style-type: none"> <li>Extend the incision along clavicle to its acromial end and reflect the skin flap upto anterior border of trapezius. Clean and define vessels and nerves</li> <li>Clean the superficial fascia and define attachments of SCM on clavicle and sternum</li> <li>Identify Ns. along posterior border of SCM</li> <li>Clean &amp; identify in the roof</li> <li>Cut through investing fascia above clavicle and along posterior border of SCM and expose</li> <li>Clean and define muscles forming floor of posterior triangle</li> <li>Clean and identify the contents of posterior triangle</li> </ul>	<ul style="list-style-type: none"> <li>Accessory N</li> <li>Lymph nodes</li> <li>External jugular vein</li> <li>Inferior belly of omohyoid</li> <li>Occipital triangle</li> <li>Omoacromioclavicular triangle</li> <li>Accessory N (entering Tz)</li> <li>Cords of brachial plexus</li> <li>Subclavian vein artery</li> <li>Subclavian vein and entry of EJV</li> <li>Phrenic nerve over scalenus anterior</li> </ul>	<ul style="list-style-type: none"> <li>Great auricular N</li> <li>Lesser occipital N</li> <li>Suprascapular Ns.</li> <li>Muscular floor of posterior triangle</li> <li>Dorsal scapular N</li> <li>Long thoracic N</li> </ul>	<ul style="list-style-type: none"> <li>Greater Occipital N (at the apex of triangle)</li> <li>Tr. Cervical artery</li> <li>N. to subclavius</li> </ul>	subdivisions of posterior triangle 2. Structures in the roof 3. Contents	especially investing layer <ul style="list-style-type: none"> <li>Prevertebral fascia</li> <li>Brachial plexus -cords entering into post. triangle</li> <li>Axillary sheath</li> </ul>
<b>APPLIED ASPECTS</b>							
<ul style="list-style-type: none"> <li>Spasmodic torticollis.</li> <li>Injury to accessory nerve during surgery in posterior triangle</li> <li>Air embolism</li> <li>CVP line</li> <li>Brachial plexus injuries involving Roots Trunks Branches</li> <li>Anatomical basis of cervical rib syndrome injuries to subclavian artery</li> <li>Compression of subclavian art.</li> </ul>							

S.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
4.	DISSECTION OF BACK	<ul style="list-style-type: none"> <li>Give a vertical incision extending frominion to spine of C, and external it laterally to acromion, reflect the skin flaps and study</li> <li>Clean and identify vessels and nerves</li> </ul>	<ul style="list-style-type: none"> <li>Trapezius</li> <li>Lat. Dorsi</li> <li>Accessory nerve</li> </ul>	<ul style="list-style-type: none"> <li>Post triangle from behind</li> <li>Greater occipital N</li> <li>Occipital artery</li> </ul>	<ul style="list-style-type: none"> <li>Occipital branch of post. auricular nerve</li> <li>3<sup>rd</sup> occipital N</li> <li>Branches from 3<sup>rd</sup> &amp;</li> </ul>	<ul style="list-style-type: none"> <li>Muscles of back</li> <li>1. Superficial layer</li> <li>2. Intermediate layer</li> <li>3. Deep layer</li> </ul>	<ul style="list-style-type: none"> <li>Arrangement of muscles of back</li> <li>Actions of these muscles</li> <li>Nerve supply of muscles of back</li> </ul>

		<ul style="list-style-type: none"> <li>Clean and identify 1st layer of back muscles</li> <li>Separate trapezius from sup. Nuchal line and reflect it laterally and divide vertically about 1cm away from vertebral spines and identify</li> <li>Clean and identify 2<sup>nd</sup> layer of back muscles</li> <li>Trace</li> <li>Reflect serratus posterior superior</li> <li>Remove thoracic part of thoracolumbar fascia to expose erector spinae and splenius curving across it</li> <li>Define attachment of splenius &amp; separate it from vertebral spine &amp; turn it superlaterally &amp; expose.</li> </ul>	<ul style="list-style-type: none"> <li>Levator scapulae</li> <li>Serratus posterior superior</li> <li>Serratus posterior inferior</li> <li>Erector spinae</li> <li>Splenius capitis</li> </ul>	<ul style="list-style-type: none"> <li>Dorsal scapular N</li> </ul>	<ul style="list-style-type: none"> <li>4<sup>th</sup> cervical Ns.</li> <li>Superficial br. of Tr. Cervical artery</li> <li>Deep br. of Tr. Cervical artery</li> </ul>		
<b>APPLIED ASPECTS</b>							
<ul style="list-style-type: none"> <li>Muscle spasm</li> </ul>							

S.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
5	SUBOCCIPITAL TRIANGLE	<ul style="list-style-type: none"> <li>Position of cadaver</li> <li>Remove the dense fibrous tissue from the region</li> <li>Clean and trace greater occipital N. crossing the triangle</li> <li>Clean and define the muscles forming the boundaries</li> </ul> <ul style="list-style-type: none"> <li>Find dorsal ramus of C<sub>1</sub> by tracing back br. to semispinalis capitis to the ramus (between post.</li> </ul>	<ul style="list-style-type: none"> <li>Rectus capitis posterior major &amp; minor</li> <li>Inferior oblique capitis</li> <li>Superior oblique capitis</li> </ul> <ul style="list-style-type: none"> <li>Vertebral artery (3<sup>rd</sup> part)</li> </ul>	<ul style="list-style-type: none"> <li>Greater occipital N</li> </ul> <ul style="list-style-type: none"> <li>Dorsal ramus of C<sub>1</sub></li> </ul>	<ul style="list-style-type: none"> <li>Suboccipital venous plexus</li> </ul>	<ul style="list-style-type: none"> <li>Boundaries of suboccipital triangle</li> <li>Contents <ul style="list-style-type: none"> <li>a. Dorsal ramus of C<sub>1</sub></li> <li>b. vertebral artery(3<sup>rd</sup> part)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Communications of suboccipital venous plexus</li> </ul>
<b>APPLIED ASPECTS</b>							
<ul style="list-style-type: none"> <li>Clinical considerations of suboccipital venous plexus</li> <li>Cisternal puncture</li> </ul>							





			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
7	DEEP DISSECTION OF FACE INCLUDING PAROTID GLAND	<ul style="list-style-type: none"> <li>Clean &amp; define the parotid gland</li> <li>Cut facial covering of parotid in front of auricle from zygomatic arch to angle of mandible</li> <li>Dissect fascia forwards to the margins of gland &amp; identify various nerves, vessels &amp; duct emerging at the borders</li> <li>Trace buccal branch of facial N. to buccinator</li> <li>Clean &amp; identify at upper border of gland</li> <li>Clean &amp; identify at lower border of gland</li> <li>Clean &amp; identify various branches from 3 div. Of V CN</li> </ul> <p>After identifying facial artery at anteroinf. angle of masseter, trace it towards medial angle of eye &amp; identify its various branches</p>	<ul style="list-style-type: none"> <li>Parotid gland</li> <li>Parotid duct( 1 finger breadth below zygomatic arch) at the ant.border of gland</li> <li>Superficial temporal Vs.</li> <li>Auriculotemporal N</li> <li>Retromandibular vein</li> <li>Facial artery</li> </ul>	<p>Above the duct</p> <ul style="list-style-type: none"> <li>Tr. Facial Vs</li> <li>Zygomatic br.of VII CN</li> <li>Below duct, brs. of VII CN</li> <li>Buccal Mandibular Cervical</li> <li>Buccinator muscle</li> <li>Buccal N. from VII CN</li> <li>Temporal br. of VII</li> <li>Cervical br. of VII CN</li> <li>Inf. labial art</li> <li>Sup. Labial art</li> <li>Angular art</li> </ul>	<ul style="list-style-type: none"> <li>Process of parotid</li> <li>Parotid lymph nodes</li> <li>Ant. &amp; post. divisions of retromandibular vein</li> <li>V<sub>1</sub> supraorbital supratrochlear</li> <li>V<sub>2</sub> Zygomaticofacial infraorbital</li> <li>V<sub>3</sub> Buccal N. Mental N.</li> <li>Last. Nasal art</li> </ul>	<ul style="list-style-type: none"> <li>Parotid gland &amp; duct</li> <li>Branches of facial N</li> <li>Superficial temporal Vs.</li> <li>Facial art</li> <li>Facial vein</li> </ul>	<ul style="list-style-type: none"> <li>Secretomotor pathway for parotid gland</li> <li>Factors facilitating spread of infection to cavernous sinus</li> </ul>
						<b>APPLIED ASPECTS</b>	
						<ul style="list-style-type: none"> <li>Parotid swelling</li> <li>Sialoliths</li> <li>Facial N. palsy</li> <li>Cavernous sinus thrombosis</li> <li>Herpes zoster</li> </ul>	

S.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
7 Contd	DEEP DISSECTION OF FACE INCLUDING PAROTID GLAND (Continued)	<ul style="list-style-type: none"> <li>Remove part of gland piecemeal &amp; expose the structures within the gland</li> </ul>	<ul style="list-style-type: none"> <li>Facial vein</li> <li>Common facial vein</li> <li>Parotid duct</li> <li>Buccinator</li> <li>Trunk of VII CN</li> <li>Post. auricular br. of VII CN</li> </ul>	<ul style="list-style-type: none"> <li>Post. auricular art.</li> <li>Terminal</li> </ul>	<ul style="list-style-type: none"> <li>Supratrochlear vein</li> <li>Supraorbital vein</li> <li>Angular vein</li> <li>Deep facial vein</li> </ul>		
						<b>APPLIED ASPECTS</b>	

			<ul style="list-style-type: none"> <li>• Facial N</li> <li>• Ext. carotid art</li> <li>• Retromandibular vein</li> </ul>	brs. of ECA Maxillary art. Superficial temporal	<ul style="list-style-type: none"> <li>• Br. of VII CN to post. belly of digastric &amp; styloid</li> </ul>
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S.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
8.	ANTERIOR TRIANGLE OF NECK	<ul style="list-style-type: none"> <li>• Give a midline incision from chin to sternum and reflect skin flaps</li> <li>• Reflect platysma upwards and expose the deep fascia from ant. Bellies of digastrics &amp; area between them</li> <li>• Remove fascia below hyoid &amp; expose infrahyoid muscles</li> <li>• Separate these muscles in midline and expose</li> <li>• Clean fascia in infrahyoid region &amp; note</li> <li>• At lower border of mandible identify</li> <li>• Clean &amp; define the digastric triangle &amp; note</li> <li>• Remove fat &amp; fascia between post. belly of omohyoid to expose carotid triangle</li> <li>• Clean &amp; define the boundaries of muscular triangle</li> <li>• Cut sternal &amp; head of SCM &amp; expose</li> <li>• Raise sup. Belly of omohyoid &amp; trace its N.</li> </ul>	<ul style="list-style-type: none"> <li>• Boundaries of ant. triangle &amp; its various subdivisions</li> <li>• Platysma</li> <li>• Digastric ms. &amp; triangle</li> <li>• Mylohyoid</li> <li>• Infrahyoid muscles</li> <li>• Laryngeal prominence</li> <li>• Isthmus of thyroid gland</li> <li>• Facial artery &amp; vein</li> <li>• Digastric triangle</li> <li>• Superficial part of submandibular gland</li> <li>• Boundaries of carotid triangle</li> <li>• CCA, ICA &amp; ECA</li> <li>• IJV</li> <li>• IX &amp; XII nerve</li> <li>• Boundaries &amp; floor of muscular triangle</li> </ul>	<ul style="list-style-type: none"> <li>• Ant. jugular vein</li> <li>• Cerv.br. of VII Cn</li> <li>• Submental triangle</li> <li>• Pretracheal fascia</li> <li>• Inf. thyroid veins</li> <li>• Jugular arch</li> <li>• Submandibular LN</li> <li>• Facial vein</li> <li>• Mylohyoid N</li> <li>• Branches from ECA in carotid triangle</li> <li>• Sup. &amp; Inf. root of ansa cervicalis</li> <li>• Intermediate tendon of omohyoid</li> <li>• Ansa cervicalis</li> </ul>	<ul style="list-style-type: none"> <li>• Submental LN</li> <li>• Median thyrohyoid lig</li> <li>• Levator glandulae thyroideae</li> <li>• Submental br. of facial artery</li> <li>• Submental artery</li> <li>• Nerves supplying infrahyoid strap</li> <li>• Intermediate tendon of omohyoid</li> <li>• Ansa cervicalis</li> </ul>	<ol style="list-style-type: none"> <li>1. Boundaries &amp; subdivisions of ant. triangle</li> <li>2. Muscles suprahyoid Infrahyoid</li> <li>3. Vessels CCA, ICA, ECA &amp; its brs. Facial veins IJV</li> <li>4. Nerves VII, X, XII CNs Ansa cervicalis</li> <li>5. Other struct. Lymph node submandibular salivary gland</li> </ol>	<ul style="list-style-type: none"> <li>• Deep cervical fascia &amp; its various components</li> <li>• Ansa cervicalis</li> <li>• Midline structures in the neck</li> </ul>
						<b>APPLIED ASPECTS</b>	
						<ul style="list-style-type: none"> <li>• Carotid pulse</li> <li>• Jugular venous pressure</li> </ul>	

S.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
9	DEEP DISSECTION OF NECK AND THYROID GLAND	<ul style="list-style-type: none"> <li>Displace SCm &amp; sup. Belly of OH laterally</li> <li>Cut sternohyoid near its lower end &amp; turn it upwards</li> <li>Remove fat &amp; fascia from front of trachea</li> <li>Remove fascia from lobes of thyroid &amp; expose its blood Vs.</li> <li>Lift lower part of gland &amp; expose lat. Surface of trachea &amp; oesophagus</li> <li>Clean &amp; identify bld. Vs. of thyroid &amp; accompanying nerves</li> <li>Lift thyroid &amp; look for parathyroid glands on its posterior aspect</li> <li>Remove carotid sheath and expose vagus between CCA &amp; IJV. Expose and identify</li> <li>Pull scalenus anterior laterally &amp; expose</li> <li>Separate IJV &amp; CCA. Identify post. to them.</li> <li>Displace CCA lat. &amp; expose</li> <li>Trace the sympathetic trunks superiorly &amp; find</li> </ul>	<ul style="list-style-type: none"> <li>Trachea</li> <li>Thyroid in situ &amp; study it.</li> <li>Oesophagus</li> <li>Recurrent laryngeal N. between them</li> <li>Sup. Thyroid artery</li> <li>Inf. thyroid artery</li> <li>Sup. Laryngeal N.</li> <li>External laryngeal N.</li> <li>Rec. laryngeal N.</li> <li>Brachiocephalic veins</li> <li>Branchiocephalic trunk on right side only</li> <li>Subclavian artery</li> <li>Costocervical trunk</li> <li>Sympathetic trunk</li> </ul>		<ul style="list-style-type: none"> <li>Remains of thymus</li> <li>Anastomosis between sup. &amp; inf. thyroid arteries</li> <li>Thyroidea in a artery</li> <li>Middle cervical ganglion</li> </ul>	<ol style="list-style-type: none"> <li>Thyroid gland &amp; its blood Vs.</li> <li>Nerves RLN Sympathetic trunks</li> <li>Vessels brachiocephalic vs. subclavian artery costocervical trunks</li> <li>Trachea</li> <li>Oesophagus</li> </ol>	<ul style="list-style-type: none"> <li>Pretracheal fascia</li> <li>Lymphatic drainage of head &amp; neck</li> <li>Thoracic duct in neck</li> </ul>
						<b>APPLIED ASPECTS</b>	
						<ul style="list-style-type: none"> <li>Thyroid swellings</li> <li>Anatomical considerations during thyroid surgery</li> </ul>	

S.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
10.	INFRATEMPORAL REGION	<ul style="list-style-type: none"> <li>Clean, define &amp; identify</li> <li>Divide zygomatic arch ant. &amp; post. to attachment of</li> </ul>	<ul style="list-style-type: none"> <li>Temporal fascia</li> <li>Masseter</li> <li>Temporalis</li> </ul>		<ul style="list-style-type: none"> <li>Neurovascular bundle entering masseter</li> <li>Buccal N &amp; Vs</li> </ul>	Muscles of mastication <ol style="list-style-type: none"> <li>Temporalis</li> <li>Masseter</li> <li>Lat. &amp; med. Pterygoid</li> </ol>	<ul style="list-style-type: none"> <li>Actions of muscles of mastication</li> </ul>

	<ul style="list-style-type: none"> <li>masseter &amp; turn it down along with the muscle</li> <li>Strip masseter from surface of mandible upto angle &amp; expose Temporalis</li> <li>Separate coronoid process from mandible by oblique cut from mandibular notch upto ant. margin of ramus meeting body of mandible</li> <li>Turn coronoid process &amp; attached temporalis upwards &amp; separate muscle fibres from temporal fossa to expose</li> <li>Expose structures in infratemporal fossa by removal of part of mandible as per figure and identify</li> <li>Give one horizontal cut through neck of mandible &amp; second above mandibular foramen.</li> <li>Remove piece of bone &amp; expose underlying muscles, nerves &amp; vessels</li> </ul>	<ul style="list-style-type: none"> <li>Sphenomandibular lig.</li> <li>Lat. Pterygoid</li> <li>Med. pterygoid</li> <li>Maxillary artery</li> </ul>	<ul style="list-style-type: none"> <li>Deep temporal N &amp; Vs</li> </ul>	<ul style="list-style-type: none"> <li>Structures piercing the sphenomandibular lig.</li> <li>Pterygoid venous plexus</li> </ul>		
<b>APPLIED ASPECTS</b>						
<ul style="list-style-type: none"> <li>Clinical consideration of pterygoid venous plexus</li> </ul>						

S.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
11.	INFRATEMPORAL REGION (Continued) INCLUDING T.M. JOINT	<ul style="list-style-type: none"> <li>Separate two heads of lat. Pterygoid</li> <li>Expose the underlying structures at lower border of lat. Pterygoid</li> <li>Remove upper head of lat. Pterygoid by detaching it from capsule of</li> </ul>	<ul style="list-style-type: none"> <li>Capsule of T.M. joint</li> <li>Middle meningeal art.</li> <li>Mandibular N. &amp; its branches</li> <li>Lingual N</li> <li>Inf. alveolar N.</li> </ul>	<ul style="list-style-type: none"> <li>Lat. Ligament of T.M. Joint</li> <li>Two roots of auriculotemporal N.</li> <li>Acc. Meningeal art</li> <li>Auriculotemporal N (curving around med. &amp; post. surface of joint capsule).</li> <li>Articular disc</li> </ul>	<ul style="list-style-type: none"> <li>Buccal N. (between two heads of lat. Pterygoid)</li> <li>Other branches of mandibular N.</li> </ul>	<ol style="list-style-type: none"> <li>Nerves. Mandibular N &amp; its two major branches lingual N. inf. alveolar N. chorda tympani Auriculotemporal N.</li> <li>Vessels maxillary artery middle meningeal art acc. Meningeal art. Inf. alveolar art.</li> </ol>	<ul style="list-style-type: none"> <li>Movements of T.M. joint</li> <li>Course &amp; distribution of mandibular N</li> <li>Distribution of chorda tympani</li> <li>Course and distribution of maxillary artery</li> </ul>

		<p>T.M. joint &amp; remove it piecemeal from infratemporal fossa</p> <ul style="list-style-type: none"> <li>• Separate lower head from lateral pterygoid plate &amp; strip it</li> <li>• Disarticulate head of mandible from articular disc &amp; remove it with pterygoid &amp; identify</li> <li>• Lift mandibular N. laterally &amp; expose otic ganglion medial to it</li> <li>• Expose tensor palati medial to MMA &amp; mandibular N</li> <li>• Lift contents of orbit upwards &amp; medially and expose</li> <li>• Remove periosteum from orbital floor &amp; identify</li> <li>• Expose mandibular canal by removing outer table of bone with chisel &amp; identify structures within canal</li> </ul>	<ul style="list-style-type: none"> <li>• Chorda tympani</li> </ul>	<ul style="list-style-type: none"> <li>• Otic ganglion</li> <li>• Tensor palati</li> <li>• Infraorbital groove</li> <li>• Infraorbital N &amp; Vs</li> <li>• Inf. alveolar N &amp; Vs</li> </ul>	<ul style="list-style-type: none"> <li>• Zygomatic N.</li> <li>• Brs. from inf. alveolar N</li> <li>• Dental brs.</li> <li>• Mental N</li> </ul>	
						<b>APPLIED ASPECTS</b>
						<ul style="list-style-type: none"> <li>• Dislocation of T.M. joint.</li> <li>• Lingual N. block in tooth extraction</li> <li>• Pterion &amp; middle meningeal art</li> <li>• Referred pain from diseased tooth</li> <li>• Taking care of articular disc and facial nerve</li> </ul>

S.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
12	SUBMANDIBULAR REGION & SUBMANDIBULAR GLAND	<ul style="list-style-type: none"> <li>• Cut facial vessels at lower border of mandible</li> <li>• Detach ant. belly of digastric from mandible</li> <li>• Clean &amp; expose post. belly of digastric &amp; stylohyoid .</li> <li>• Turn superficial part of</li> </ul>	<ul style="list-style-type: none"> <li>• Superficial part includes submental triangle digastric triangle</li> <li>• Deep part includes root of tongue floor of mouth</li> <li>• Facial vessels</li> <li>• Both bellies of digastric</li> <li>• Stylohyoid muscle</li> <li>• Submandibular gland superficial part</li> <li>• Mylohyoid muscle</li> <li>• Continuation of</li> </ul>	<ul style="list-style-type: none"> <li>• Stylomandibular lig.</li> <li>• Submental art.</li> </ul>	<ul style="list-style-type: none"> <li>• Facial nerve</li> <li>• Glandular brs. of facial art</li> <li>• N. to</li> </ul>	<ol style="list-style-type: none"> <li>1. Submandibular gland &amp; its both parts</li> <li>2. Muscles Both bellies of digastric Myohyoid Stylohyoid Hyoglossus Geniohyoid Genioglossus Styloglossus Stylopharyngeus Middle constrictor</li> </ol>	<ul style="list-style-type: none"> <li>• Submandibular ganglion</li> </ul>

	<ul style="list-style-type: none"> <li>submandibular gland hooking around post. free border of myohyoid</li> <li>Dissect &amp; clean facial artery from deep surface of gland &amp; trace its branches</li> <li>Trace &amp; identify N. to mylohyoid on mylohyoid.</li> <li>Turn S.M. gland anteriorly &amp; identify</li> <li>Displace S.M. gland &amp; submental Vs. posteriorly</li> <li>Turn ant. belly of digastric downwards</li> </ul>	<ul style="list-style-type: none"> <li>deep &amp; superficial parts of gland around post. border of mylohyoid</li> <li>Facial art</li> <li>Deep part of gland</li> <li>Hyoglossus</li> <li>XII CN over hyoglossus</li> <li>Lingual N (crossing the uscle at higher level)</li> <li>Submandibular duct</li> <li>Mylohyoid &amp; its attachments</li> </ul>	<ul style="list-style-type: none"> <li>mylohyoid</li> <li>Submandibular ganglion suspended from lingual N</li> </ul>	
<b>APPLIED ASPECTS</b>				
<ul style="list-style-type: none"> <li>Submandibular salivary calculi</li> <li>Veins related to submandibular gland</li> </ul>				

S.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
13.	SUBMANDIBULAR REGION & SUBMANDIBULAR GLAND (Continued)	<ul style="list-style-type: none"> <li>Take the sagittal section of the head &amp; neck on alternate table (one in 3 tables) in each row</li> <li>After identifying cut edge of mylohyoid on medial surface, separate it from overlying genioid</li> <li>Identify plane of separation between genioid &amp; genioglossus</li> <li>Pull tongue away from mandible cut m.m. between it &amp; mandible</li> <li>Strip m.m from floor of mouth &amp; mandible and turn it down and expose</li> <li>Trace styloglossus back to styloid process and confirm stylopharyngeus passing deep to hyoglossus</li> <li>Below IX CN, identify sup. Border of middle constrictor &amp; trace it to hyoid bone</li> </ul>	<ul style="list-style-type: none"> <li>Geniohyoid</li> <li>Genioglossus</li> <li>Submandibular duct</li> <li>Lingual N</li> <li>Hypoglossal N</li> <li>Styloglossus</li> <li>Stylopharyngeus</li> <li>Glossopharyngeal N</li> <li>Middle constrictor</li> <li>Lingual art</li> <li>Post. part of Genioglossus</li> <li>Middle constrictor</li> </ul>	<ul style="list-style-type: none"> <li>Sublingual gland</li> <li>Stylohyoid ligament</li> <li>Lingual veins</li> </ul>	<ul style="list-style-type: none"> <li>Deep lingual vein</li> <li>Dorsal branches of lingual artery</li> </ul>	<ol style="list-style-type: none"> <li>Submandibular duct</li> <li>Nerves XII CN lingual N &amp; SMD ganglion IX CN</li> <li>Arteries facial submental lingual</li> <li>Sublingual gland</li> </ol>	
<b>APPLIED ASPECTS</b>							

		<ul style="list-style-type: none"> <li>Detach hyoglossus from hyoid &amp; turn it upwards and expose</li> </ul>			
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S.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
14.	PHARYNX <b>PROSECTION</b>	<ul style="list-style-type: none"> <li>Remove buccopharyngeal fascia from ext. surface of pharyngeal muscles</li> <li>Clean &amp; expose IX CN winding round post. surface of stylopharyngeus</li> <li>Clean &amp; define structures at upper border of sup. Constrictor</li> <li>Clean &amp; define structures between sup. &amp; middle constrictor</li> <li>Clean &amp; define structures between middle &amp; inf. constrictors</li> <li>Clean &amp; define structures at lower border of inf. constrictor</li> </ul>	<ul style="list-style-type: none"> <li>Constrictors of pharynx sup. Constrictor middle constrictor inf. constrictor</li> <li>Stylopharyngeus</li> <li>IX Cranial Nerve</li> <li>Levator palati</li> <li>Tensor palati</li> <li>Stylopharyngeus</li> <li>IX CN</li> </ul>	<ul style="list-style-type: none"> <li>Buccopharyngeal fascia</li> <li>Auditory tube</li> <li>Sup. Laryngeal N &amp; Vessels</li> <li>Recurrent laryngeal Nerve</li> </ul>	<ul style="list-style-type: none"> <li>Pharyngeal plexus of veins</li> <li>Branch to stylopharyngeus</li> <li>Ascending palatine artery</li> <li>Inferior laryngeal artery</li> </ul>	1. Muscles pharynx -Constrictors - Stylopharyngeus palate -Levator palati 2. Nerves IX CN Sup. Laryngeal recurrent laryngeal recurrent laryngeal 3. Vessels: Ascending palatine artery Inferior laryngeal artery.	<ul style="list-style-type: none"> <li>Arrangement of constrictors of pharynx</li> <li>Innervation of pharyngeal muscles &amp; pharyngeal plexus</li> </ul>
						<b>APPLIED ASPECTS</b>	
						<ul style="list-style-type: none"> <li>Killian's dehiscence</li> <li>Pharyngeal abscess</li> </ul>	

S.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
15.	PHARYNX (Continued) AND SOFT PALATE <b>PROSECTION</b>	<ul style="list-style-type: none"> <li>In the mid sagittal cut specimen of head and neck study the interior of pharynx. Strip off its mucous membrane to expose the pharyngeal muscles from medial slide.</li> <li>Identify different parts of pharynx, note their extent &amp; features</li> <li>Identify the</li> </ul>	Pharyngeal muscles a. Nasopharynx opening of auditory tube b. Oropharynx palatine tonsil in tonsillar fossa c. Laryngopharynx Ant. wall showing laryngeal inlet lat. Wall presenting piriform fossa <ul style="list-style-type: none"> <li>Muscles of soft palate levator palati palatoglossus palatopharyngeus musculus uvulae</li> </ul>	<ul style="list-style-type: none"> <li>Tubal elevation</li> <li>Salpingopharyngeal fold</li> <li>Pharyngeal recess</li> <li>Pharyngeal tonsil</li> <li>Palatoglossal arch</li> <li>Palatopharyngeal arch</li> <li>Aryepiglottic fold</li> <li>Thyrohyoid membrane</li> <li>IX CN (anterolateral to stylopharyngeus)</li> </ul>	<ul style="list-style-type: none"> <li>Tubal tonsil</li> <li>Bed of tonsil</li> <li>Ascending palatine art</li> </ul>	1. Muscles of pharynx constrictors. Longitudinal palatopharyngeus stylopharyngeus Saplino-pharyngeus 2. Muscles of soft palate Levator palati Tensor palati Palatopharyngeus Musculus uvulae 3. Palatine tonsil 4. Opening of auditory tube 5. Epiglottis 6. Laryngeal inlet 7. Piriform fossa 8. Nerves	<ul style="list-style-type: none"> <li>Deglutition</li> <li>Blood supply of palatine tonsil</li> <li>Passavant's ridge</li> </ul>
						<b>APPLIED ASPECTS</b>	
						<ul style="list-style-type: none"> <li>Dysphagia</li> </ul>	

	<ul style="list-style-type: none"> <li>soft palate</li> <li>Clean &amp; define the muscles after stripping off the mucous membrane</li> </ul>			<ul style="list-style-type: none"> <li>Tonsillitis &amp; anatomical considerations in tonsillectomy</li> <li>Quinsy</li> <li>Removal of foreign bodies from piriform fossa</li> <li>Embryological basis of cleft palate</li> </ul>
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No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
16.	NASAL CAVITY  PROSECTION	<ul style="list-style-type: none"> <li>In the mid sagittally cut specimen of head &amp; neck, identify nasal septum</li> <li>Strip the mucous membrane from the septum &amp; expose</li> <li>Study &amp; identify various features of lat. Wall of nose</li> <li>Identify openings &amp; features of meatuses</li> <li>Remove ant. part of inf. concha &amp; expose opening of</li> <li>Trace nasopalatine N. from nasal septum across the roof of nasal cavity to sphenopalatine foramen</li> <li>Break perpendicular plate of palatine and expose</li> </ul>	<ul style="list-style-type: none"> <li>Nasal septum</li> <li>Vomer</li> <li>Perpendicular plate of ethmoid</li> <li>Sphenoethmoidal recess</li> <li>Nasal conchae</li> <li>Meatuses</li> <li>a. Spheno sph.recess</li> <li>b. Sup. Meatus post. ethmoidal cells.</li> <li>c. Middle meatus frontal air sinus maxillary &amp; ant. ethmoidal</li> <li>d. Inf. meatus nasolacrimal duct</li> </ul>	<ul style="list-style-type: none"> <li>Septal cartilage</li> <li>Vestibule of nose</li> <li>Atrium of middle meatus</li> <li>Infundibulum</li> <li>Hiatus semilunaris</li> <li>Bulla ethmoidae</li> </ul>	<ul style="list-style-type: none"> <li>Parts of Maxilla Palatine Nasal Sphenoid forming nasal septum</li> <li>Mucocutaneous junction</li> <li>Nasopalatine N.</li> <li>Greater palatine</li> </ul>	<ol style="list-style-type: none"> <li>Nasal septum &amp; its formative constituents</li> <li>Lat. Wall of nose &amp; its features</li> <li>Conchae</li> <li>Meatuses</li> </ol>	<ul style="list-style-type: none"> <li>Nerve supply &amp; blood supply of <ul style="list-style-type: none"> <li>Nasal septum</li> <li>Lat. Wall of nose</li> </ul> </li> <li>Pterygopalatineganglion</li> <li>Functional aspects of paranasal sinuses</li> </ul>
<b>APPLIED ASPECTS</b>						<ul style="list-style-type: none"> <li>Little's area &amp; epistaxis</li> <li>Sinusitis</li> <li>Dacryocystitis</li> </ul>	

No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
17.	LARYNX  PROSECTION	<ul style="list-style-type: none"> <li>Study</li> <li>Cut through sternothyroid upward &amp; define its attachment to thyroid cartilage</li> <li>Identify attachments of inf. constrictor on thyroid and cricoid cartilages</li> </ul>	<ul style="list-style-type: none"> <li>Larynx in situ</li> <li>Thyroid cartilage &amp; laryngeal prominencesternothyroid muscle</li> <li>Thyrohyond muscle</li> <li>Cricoid cartilage</li> <li>Inf. constrictor</li> <li>Cricothyroid muscle</li> <li>Thyrohyoid muscle</li> </ul>	<ul style="list-style-type: none"> <li>Sup. Thyroid notch</li> </ul>	<ul style="list-style-type: none"> <li>Cricothyroid lig.</li> </ul>	<ol style="list-style-type: none"> <li>Cartilage</li> <li>Membranes &amp; ligaments</li> <li>Larynx and its various components</li> </ol>	<ul style="list-style-type: none"> <li>Cricothyroid &amp; cricoarytenoid joints, their movements &amp; muscles causing them</li> <li>N. &amp; Bld. Supply of larynx</li> <li>Lymphatic drainage of larynx</li> </ul>



	<ul style="list-style-type: none"> <li>Expose inf. constrictor &amp; divide it horizontally</li> <li>Trace inf. horn of the thyroid cartilage to its articulations with cricoid cartilage</li> <li>Expose</li> <li>Clean and expose thyrohyoid muscle</li> <li>Cut through thyrohyoid muscle &amp; expose</li> <li>On sectional surface of larynx identify</li> <li>Study the interior of larynx</li> </ul>	<ul style="list-style-type: none"> <li>Thyrohyoid memb</li> <li>Sup. Laryngeal Vs.</li> <li>Int. laryngeal N</li> <li>Epiglottis</li> <li>Arytenoid cartilage</li> <li>Vestibule of larynx</li> <li>Vestibular folds</li> <li>Vocal folds</li> <li>Ventricle of larynx</li> </ul>	<ul style="list-style-type: none"> <li>Glossoepiglottic folds</li> <li>Quadrante lig.</li> <li>Rima vestibuli</li> <li>Rima glottides</li> </ul>	<ul style="list-style-type: none"> <li>Thyrohyoid lig.</li> <li>Hyoepiglottic lig.</li> <li>Corniculate cartilage</li> <li>Tubercle of epiglottis</li> <li>Saccule of larynx</li> </ul>	<p style="text-align: center;"><b>APPLIED ASPECTS</b></p> <ul style="list-style-type: none"> <li>Simons law</li> <li>Laryngeal oedema</li> <li>Laryngoscopy</li> <li>Vocal cord palsy</li> </ul>
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S.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
	LARYNX (continued)	<ul style="list-style-type: none"> <li>Cut vestibular folds from upper part of arytenoids cartilage &amp; strip it forwards from the wall of larynx &amp; note the underlying muscle</li> <li>Strip mucous membrane from inf. surface of vocal fold &amp; expose</li> <li>Strip mucous membrane from sup. Surface of vocal fold &amp; expose upper surface of</li> <li>In the specimen of larynx, clean &amp; identify muscles</li> <li>Remove cricothyroid on one side along lower part of lamina &amp; inf. horn of thyroid cartilage &amp; expose</li> </ul>	<ul style="list-style-type: none"> <li>Thyroarytenoid</li> <li>Cricothyroid</li> <li>Post. cricoarytenoid</li> <li>Tr. &amp; oblique arytenoid</li> </ul>	<ul style="list-style-type: none"> <li>Thyroepiglotticus</li> <li>Conus elasticus</li> <li>Thyroartenoid</li> <li>Thyroepiglotticus</li> <li>Cricothyroid joint</li> </ul>	<ul style="list-style-type: none"> <li>Vocal lig.</li> </ul>	<ol style="list-style-type: none"> <li>Muscle of larynx</li> <li>Cricothyroid</li> <li>Postcricothyroid</li> <li>Tr. &amp; oblique arytenoid</li> <li>Lat. Cricothyroid</li> <li>Extrinsic muscles acting on larynx</li> <li>Thyrohyoid</li> <li>stylopharyngeus</li> <li>Palatopharyngeus</li> <li>Sternothyroid</li> </ol>	
						<b>APPLIED ASPECTS</b>	

**SECTION – II**  
**(Course Content under Level – I, II, III)**  
**TUTORIALS**

**LEARNING OBJECTIVES OF TUTORIALS**  
**OUTLINE OF TUTORIALS**

S.No	TOPIC	MUST KNOW	SHOULD KNOW	COULD KNOW
1.	ANT. CRANIAL FOSSA	<ol style="list-style-type: none"> <li>Boundaries - Crista Galli , Cribriform plate of ethmoid</li> <li>Orbital plate of frontal bone</li> <li>Lesser wing of sphenoid</li> <li>Ant clinoid process</li> </ol>	<ol style="list-style-type: none"> <li>1a. Foramen Caecum</li> <li>2a. Frontal crest</li> </ol>	<ol style="list-style-type: none"> <li>1b. Ant &amp; Post ethmoidal canal</li> <li>2b. Jugum Sphenoidal</li> <li>3a. Caroticoclinoid foramen</li> </ol>
2.	MIDDLE CRANIAL FOSSA	<ol style="list-style-type: none"> <li>Boundaries</li> <li>Sulcus chiasmatis</li> <li>Optic canal</li> <li>Sella turcica</li> <li>Post clinoid process</li> <li>Groove for ICA</li> <li>Cavernous sinus</li> <li>Foramen ovale &amp; spinosum</li> <li>Superior orbital fissure &amp; contents</li> </ol>	<ol style="list-style-type: none"> <li>1a. Attachment of tentorium cerebelli</li> <li>2a. Foramen rotundum &amp; F.lacerum</li> <li>3a. Meckel's cave</li> <li>4a. Arcuate eminence</li> <li>5a. Tegmen tympani</li> <li>6a. Squamotympanic fissure</li> </ol>	<ol style="list-style-type: none"> <li>1b. Dorello's canal</li> <li>2b. Foramen of vesalius</li> <li>3b. Canaliculus innomnatus</li> <li>4b. Hiatus for greater &amp; lesser petrosal nerves</li> </ol>
3.	POSTERIOR CRANIAL FOSSA	<ol style="list-style-type: none"> <li>Boundaries</li> <li>Clivus - basiocciput &amp; basisphenoid</li> <li>Foramen magnum</li> <li>Internal occipital crest &amp; protruberance</li> <li>Jugular foramen</li> <li>Hypoglossal canal</li> <li>Internal acoutic meatus</li> <li>Transverse &amp; sigmoid sulcus</li> </ol>	<ol style="list-style-type: none"> <li>2a. Structure attached to clivus</li> </ol>	<ol style="list-style-type: none"> <li>1a. Condylar canal</li> <li>2b. Petro - occipital fissure</li> <li>3a. Opening of vestibular aqueduct</li> </ol>
4.	INTERIOR OF CRANIUM	<ol style="list-style-type: none"> <li>Bones</li> <li>Sutures &amp; types</li> <li>Frontal crest</li> <li>Sagittal sulcus</li> </ol>	<ol style="list-style-type: none"> <li>1a. Vascular impressions</li> </ol>	<ol style="list-style-type: none"> <li>1b. Parietal foramina</li> <li>2b. Impressions for cerebral gyri</li> </ol>
5a.	SKULL NORMA FRONTALIS	<ol style="list-style-type: none"> <li>Anatomical position Reid's base line Frankfurt's plane</li> <li>Bones forming</li> <li>Supercilliary arch</li> <li>Frontal eminence</li> <li>Glabella</li> <li>Nasion</li> <li>Orbital margins</li> <li>Boundaries of Orbit Supraorbital foramen Infraorbital foramen Superior orbital fissure Inferior orbital fissure</li> <li>Ant. Nasal Aperture</li> <li>Parts of Maxilla</li> </ol>	<ol style="list-style-type: none"> <li>3. Sutures - Metopic suture</li> <li>8. Lacrimal fossa</li> <li>13. Incisive foramen</li> <li>14. Canine fossa</li> <li>15. Muscle attachments</li> <li>16. Applied Frontal sinuses</li> </ol>	<ol style="list-style-type: none"> <li>17. Ethmoidal foramen</li> <li>18. Whitnall's tubercle</li> </ol>
5b.	SKULL NORMA VERTICALIS	<ol style="list-style-type: none"> <li>Bones taking part</li> <li>Sutures</li> <li>Bregma, lambda, vertex</li> <li>Fontanelle</li> <li>Parietal eminence</li> </ol>	<ol style="list-style-type: none"> <li>6. Parietal foramen</li> <li>7. Temporal lines</li> <li>9. Applied - # of parietal bones</li> </ol>	<ol style="list-style-type: none"> <li>8. Sutural bones</li> </ol>
5b.	SKULL NORMA VERTICALIS	<ol style="list-style-type: none"> <li>Bones taking part</li> <li>Sutures</li> <li>Bregma, lambda, vertex</li> <li>Fontanelle</li> <li>Parietal eminence</li> </ol>	<ol style="list-style-type: none"> <li>6. Parietal foramen</li> <li>8. Temporal lines</li> </ol>	<ol style="list-style-type: none"> <li>7. Obelion</li> </ol>

			10. Applied - # of parietal bones	9. Sutural bones
6a.	SKULL NORMA OCCIPITALIS	1. Bones taking part 2. Lambdoid suture  4. External occipital protuberance 5. Inion 6. Nuchal lines	3. Mastoid foramen  7. Muscle attachments	8. Interparietal bones
6b.	SKULL NORMA LATERALIS	1. Bones taking part 2. Sutures 3. Pterion 4. Asterion  6. Zygomatic arch  8. Ext. acoustic meatus 9. Suprameatal triangle 10. Infratemporal fossa - boundaries & contents  12. Mastoid process 13. Styloid process	5. Temporal lines  11. Pterygopalatine fossa  14. Muscles attachments Masseter Temporalis	
7.	SKULL NORMA BASALIS	Boundaries 1. Ant. part - hard palate - sutures & formation  4. Palatine crest 5. Post. nasal spine  7. Middle part - union of basiocciput & basiphenoid 9. Pterygoid plate 10. Pterygoid hamulus Greater wing of sphenoid Identification Spine of sphenoid Foramen  13. Petrous temporal F. Lacerum Carotid canal Mandibular fossa  15. Tympanic part of temporal bone  16. Post. Part-f. Magnum 17. Ext. Occipital crest 18. Ext. Occipital protuberance 19. Hypoglossal canal  20. Jugular foramen  21. Styloid process  22. Stylomastoid foramen 23. Mastoid notch 24. Occipital condyles	2. Palatine foramen 3. Incisive fossa  6. Muscle attachments  11. Pterygoid fossa 12. Muscle attachments  14. Squamotympanic fissure  25. Post. Condylar canal  26. Jugular fossa 27. Mastoid canaliculus  28. Muscle attachment 29. Applied - facial nerve damage	8. Palatovaginal canal
8.	MANDIBLE	1. Parts 2. Body - symphysis menti 3. Mental protuberance 4. Mental tubercle 5. Mental foramen  7. Oblique line 8. Base 9. Mylohyoid line & groove  11. Ramus-mandibular foramen 12. Linula	6. Mental fossa  10. Genial tubercles	

		<ul style="list-style-type: none"> <li>13. Myelohyoid groove</li> <li>14. Coidyloid &amp; coronoid processes</li> <li>15. Attachments of muscles of mastication</li> <li>16. Relation of vessels &amp; nerves</li> <li>17. Relation of salivary gland</li> <li>18. Age changes</li> <li>19. Movements of mandible &amp; muscle causing it.</li> </ul>	<ul style="list-style-type: none"> <li>20. Ossification</li> <li>21. Applied # Mandible Dislocation Lingual N. block</li> </ul>	<ul style="list-style-type: none"> <li>22. Growth of mandible</li> <li>23. Sex differences</li> </ul>
9.	CERVICAL VERTEBRAE	<ul style="list-style-type: none"> <li>1. Total no. Typical Atypical</li> <li>2. Identifying features</li> <li>3. Articulations</li> <li>4. C1 - identifying features</li> <li>7. Anatomical position</li> <li>8. Parts</li> <li>9. Course of vertebral art</li> <li>10. Joints and movements</li> <li>11. C2-identifying features</li> <li>12. Anatomical position</li> <li>13. Odontoid process</li> <li>14. C7- identifying features</li> <li>15. Anatomical features</li> <li>16. Vertebra prominence</li> </ul>	<ul style="list-style-type: none"> <li>5. Costal &amp; transverse elements</li> <li>6. Carotid tubercle</li> </ul>	<ul style="list-style-type: none"> <li>17. Muscle attachment</li> <li>18. Sex differences</li> </ul>
10.	INDIVIDUAL BONES TEMPORAL FRONTAL PARIETAL	<ul style="list-style-type: none"> <li>1. Identification</li> <li>2. Parts</li> <li>3. Articulation : sutures</li> <li>5. Fontanellae</li> <li>6. Relations on the internal surface</li> </ul>	<ul style="list-style-type: none"> <li>7. Muscle attachments</li> </ul>	<ul style="list-style-type: none"> <li>4. Sutural bones</li> </ul>
11a.	SPHENOID	<ul style="list-style-type: none"> <li>1. Identification</li> <li>2. Articulation, sutures</li> <li>3. Relations on the internal surface</li> <li>4. Identify - sup, orbital fissure, Foramen rotundum. Foramen ovale &amp; foramen spinosum</li> </ul>	<ul style="list-style-type: none"> <li>5. Muscle attachments</li> <li>6. Ossification</li> </ul>	
11b.	MAXILLA	<ul style="list-style-type: none"> <li>1. Identification, parts</li> <li>2. Articulation</li> <li>3. Maxillary air sinuses</li> <li>4. Infraorbital foramen</li> </ul>	<ul style="list-style-type: none"> <li>5. Muscle attachments</li> <li>6. Age changes</li> <li>7. Applied importance</li> <li>8. Ossification</li> </ul>	
11c.	OCCIPITAL	<ul style="list-style-type: none"> <li>1. Identification, parts</li> <li>2. Articulation</li> <li>3. Anatomical position</li> <li>4. Relations on the external &amp; internal surfaces</li> </ul>	<ul style="list-style-type: none"> <li>5. Muscle attachments</li> <li>6. Ossification</li> </ul>	<ul style="list-style-type: none"> <li>7. Interparietal bone</li> </ul>
12a.	FOETAL SKULL	<ul style="list-style-type: none"> <li>1. Difference between skull at birth and skull</li> <li>2. Fontanelle Time of closure Applied importance</li> <li>3. Closure of sutures</li> <li>4. Sex differences</li> </ul>	<ul style="list-style-type: none"> <li>5. Craniometry</li> <li>6. Cranial capacity</li> </ul>	<ul style="list-style-type: none"> <li>7. Mechanism of growth</li> <li>8. Applied</li> </ul>

				Forensic - reconstruction with skeletal remains estimation of age.
12b.	SMALL BONES VOMER, LACRIMAL, INFERIOR NASAL, CONCHA NASAL, ETHMOID, PALATINE	1. Identification	2. Ossification	3. Obelion 4. Sutural bones