

**SECTION – I**  
**(Course Content)**

**NEUROANATOMY**

**Lectures : 20 hrs**

**Practicals : 10 x 2 = 20 hrs**

**TOPICS**

1. **Introduction** ; Evolution ; centralization ; encephalization ; development of the neural tube & derivatives ; neural crest & derivatives ; subdivisions ; CNS – PNS – ANS – cells of the nervous system – neuron & different ways of classifying them ; glia & functions ; nerve fibres 1 hr
2. **Peripheral nervous system**
  - Cranial nerves – twelve pairs
  - Spinal nerves ; anterior primary rami – characteristics – plexus formation, exception (thoracic) ; Posterior primary rami – characteristics (retention of segmental distribution) ;
  - Nerve endings – receptors ; effectors 1 hr
3. **Central nervous system :**
  - Spinal cord – external features ; internal features ; sections – sacral, lumbar, thoracic, cervical ; grey matter and cells ; white matter and tracts ; central canal ; coverings ; blood supply ; applied anatomy ; lumbar puncture ; lesions and their effects. 1 hr
  - Medulla oblongata (closed) – external features ; internal features ; sections – motor decussation, sensory decussation, central canal. 1 hr
  - Medulla oblongata (open) - external features ; internal features ; sections ; floor of the fourth ventricle ; nuclei of the cranial nerves ; inferior cerebellar peduncle ; blood supply ; lesions. 1 hr
  - Pons – external features, internal features ; floor of the fourth ventricle ; sections through lower pons and upper pons ; nuclei of cranial nerves ; middle cerebellar peduncle ; blood supply ; lesions. 1 hr
  - Midbrain – external features, internal features ; cerebral aqueduct ; sections through superior colliculus and inferior colliculus ; nuclei of cranial nerves ; blood supply ; lesions. 1 hr
  - Cerebellum :  
Archicerebellum (vestibulocerebellum for equilibrium)  
Paleocerebellum (spinocerebellum for muscle tone) ;  
Neocerebellum (cerebrocerebellum for co-ordination with the cortex) ;  
Structure – white matter ; submerged nuclear masses ; blood supply ; lesions 2 hrs
  - Thalamic complex : dorsal thalamus ; hypothalamus ; metathalamus ; epithalamus ; subthalamus ; third ventricle ; blood supply. 1 hr
  - Cerebral hemispheres ; major subdivisions ; functional areas ; blood supply ; submerged nuclear masses ; white matter internal capsule ; lateral ventricle ; cranial nerves I and II ; blood supply ; lesions 2 hrs
  - Limbic system : parts and functions 1 hr
  - Reticular system ; parts and functions 1 hr
4. Meninges and blood supply 1 hr

5.	Cerebrospinal fluid ; production, circulation, absorption, functions	1 hr
6.	General concepts of the cranial nerves ; course , distribution and effects of lesions	1 hr
7.	Autonomic nervous system I : Sympathetics	1 hr
8.	Autonomic nerves system II : Parasympathetics – cranial outflow (Cranial nerves 3,7,9 and 10) ; autonomic ganglia of head and neck ; sacral outflow	1 hr
9.	Principles of ascending and descending pathways	1 hr

**SECTION – I  
(Course Content)**

**NERVOUS SYSTEM : PRACTICALS**

**(To be completed in 10 sessions of two hours each)**

1. Meninges and blood vessels
2. Medulla
3. Pons
4. Cerebellum
5. Fourth ventricle
6. Midbrain
7. Cerebrum – white matter
8. Lateral ventricle
9. Thalamic complex and third ventricle
10. Sections of the brain ; coronal and horizontal

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

S.NO	TOPIC	LEVEL 1	LEVEL 2	LEVEL 3
01	Introduction	<ul style="list-style-type: none"> <li>• Evolution, Centralization</li> <li>• Encephalization;</li> <li>• Development of neural tube and its derivatives; Neural crest and derivatives</li> <li>• Subdivisions: CNS, PNS and ANS;</li> <li>• Cells of the nervous system- Neurons and different ways of classifying the neurons;</li> <li>• Neuroglia and its functions;</li> <li>• Nerve fibres</li> </ul>		
02	Peripheral nervous system	<ul style="list-style-type: none"> <li>• Cranial nerves- 12 pairs</li> <li>• Spinal nerves; Anterior primary rami- characteristics- plexus formation</li> <li>• Posterior primary rami- characteristics (retention of segmental distribution)</li> <li>• Nerve endings: receptors; effectors</li> </ul>		

03	CNS: Spinal cord	<ul style="list-style-type: none"> <li>• External features; Internal features: grey matter- cells, white matter- tracts</li> <li>• Sections: cervical, thoracic, lumbar &amp; sacral</li> <li>• Central canal; Coverings;</li> <li>• Blood supply;</li> <li>• Applied anatomy: Lumbar puncture; Lesions at various levels and their effects.</li> </ul>		
04	Medulla oblongata	<ul style="list-style-type: none"> <li>• External features, Internal features;</li> <li>• Cranial nerve nuclei;</li> <li>• Sections: at the motor decussation; sensory decussation; central canal; Section at the level of Olive; Floor of the fourth ventricle; Inferior cerebellar peduncle;</li> <li>• Blood supply</li> <li>• Lesions of the medulla at various levels and their effects.</li> </ul>		
05	Pons	<ul style="list-style-type: none"> <li>• External features; internal features;</li> <li>• Floor of the fourth ventricle; sections through upper and lower pons;</li> <li>• Cranial nerve nuclei;</li> <li>• Middle cerebellar peduncle;</li> <li>• Blood supply</li> <li>• Lesions and the effect of the lesions</li> </ul>		
06	Midbrain	<ul style="list-style-type: none"> <li>• External features; internal features</li> <li>• Cerebral aqueduct</li> <li>• Sections through the superior and inferior colliculi</li> <li>• Nuclei of cranial nerves</li> <li>• Blood supply</li> <li>• Lesions at different levels and their effects</li> </ul>	Signs and symptoms of extra-pyramidal lesions	Neoruber and paleoruber
07	Cerebellum	<ul style="list-style-type: none"> <li>• Morphology; Location; Surfaces and fissures</li> <li>• Cerebellar peduncles</li> <li>• Flocculonodular lobule</li> <li>• Cerebellar cortex and medulla</li> <li>• Archicerebellum (vestibulocerebellum for equilibrium);</li> <li>• Paleocerebellum (spinocerebellum for muscle tone); neocerebellum (cerebrocerebellum for co-ordination with the cerebral cortex); structure- grey and white matter;</li> <li>• Submerged nuclear masses;</li> <li>• Blood supply;</li> <li>• Cerebellar lesion; signs and symptoms- anatomical correlations</li> </ul>	Afferents and efferents of all the cerebellar peduncles Parts of the vermis Functional localization within the cerebellum	
08	Thalamic complex	<ul style="list-style-type: none"> <li>• Thalamus: Morphology of thalamus- Relations of thalamus Nuclei of thalamus: classification and</li> </ul>	<ul style="list-style-type: none"> <li>• Hypothalamic nuclei</li> <li>• Choroid plexus</li> </ul>	<ul style="list-style-type: none"> <li>• Relations of striae medullaris thalami</li> <li>• Thalamic radiations</li> </ul>

		<ul style="list-style-type: none"> <li>connections</li> <li>VPM and VPL nuclei</li> <li>• Geniculate bodies and their connections</li> <li>• Lesions of the thalamus And their effects</li> <li>• Hypothalamus</li> <li>• Metathalamus</li> <li>• Epithalamus</li> <li>• Subthalamus</li> <li>• Blood supply</li> <li>• Third ventricle</li> </ul>		
09	Cerebral hemispheres: major subdivisions; functional areas; Blood supply	<ul style="list-style-type: none"> <li>• Poles, Surfaces &amp; Borders</li> <li>• Sulci and gyri</li> <li>• Functional areas</li> <li>• Lesions in the main functional areas and their effects</li> <li>• Circle of Willis</li> <li>• Central and cortical branches</li> <li>• Areas of distribution of ACA, MCA and PCA</li> </ul>	<ul style="list-style-type: none"> <li>• Types of sulci and gyri</li> <li>• Brodmann's areas</li> <li>• Structure of cerebral cortex</li> <li>• Course of ICA and Vertebral arteries</li> <li>• Lenticulostriate artery</li> <li>• Venous drainage of cerebral hemispheres</li> <li>• Dural venous sinuses</li> </ul>	<ul style="list-style-type: none"> <li>• MsI, MsII, SmI, SmII</li> <li>• Granular and agranular cortex</li> <li>• Stria of gennari</li> <li>• Variations of circle of Willis</li> <li>• Recurrent artery of Heubner</li> <li>• Aneurysm of cerebral vessels</li> <li>• Anastamotic veins of Trolard and Labbe</li> </ul>
10	White matter of cerebral hemispheres: Internal capsule; Cranial nerves I and II Blood supply and effects of lesions	<ul style="list-style-type: none"> <li>• White matter: Types of fibres</li> <li>• Internal capsule: Location, parts</li> <li>• Afferents and efferents passing through he capsule</li> <li>• Blood supply of internal capsule</li> <li>• Lesions of internal capsule and their effects</li> </ul>	<ul style="list-style-type: none"> <li>• Artery of Charcot and Heubner</li> </ul>	<ul style="list-style-type: none"> <li>• External capsule and extreme capsule</li> </ul>
11	Basal ganglia	<ul style="list-style-type: none"> <li>• Morphology, Relations, especially of Caudate Nucleus and Globus pallidus</li> <li>• Connections (Afferent and Efferent ) of basal ganglia</li> <li>• Extrapyramidal system : Components and functions</li> </ul>	<ul style="list-style-type: none"> <li>• Signs and symptoms of lesions of basal ganglia</li> </ul>	<ul style="list-style-type: none"> <li>• Circuit of Papez</li> <li>• Korasakoff's psychosis</li> </ul>
12	Limbic system	<ul style="list-style-type: none"> <li>• Definition</li> <li>• Functions</li> <li>• Olfactory and non-olfactory components</li> <li>• Dentate gyrus</li> <li>• Fornix</li> <li>• Stria terminalis</li> <li>• Hippocampus</li> </ul>	<ul style="list-style-type: none"> <li>• Main connections of Limbic system</li> </ul>	
13	Reticular activating system	<ul style="list-style-type: none"> <li>• Definition</li> <li>• Components</li> <li>• Functions</li> </ul>		
14	Meninges and Blood supply	<ul style="list-style-type: none"> <li>• Duramater: Cranial and spinal-differences</li> <li>• Arachnoidmater</li> <li>• Piamater</li> <li>• Spaces in between them</li> <li>• Meningeal vessels</li> <li>• Applied anatomy of the meningeal vessels</li> </ul>		
15	Cerebrospinal fluid:	<ul style="list-style-type: none"> <li>• Choroid plexus: Structure and Distribution</li> <li>• Arachnoid granulations: Location,</li> </ul>		

		<ul style="list-style-type: none"> <li>structure, functions</li> <li>Production, circulation and absorption</li> <li>Functions of the CSF</li> </ul>		
16	Cranial nerves	<ul style="list-style-type: none"> <li>General concepts;</li> <li>Cranial nerve nuclei: Functional components;</li> <li>Course, distribution and effect of lesions</li> </ul>		
17	Autonomic nervous system I Sympathetics	<ul style="list-style-type: none"> <li>Thoracolumbar outflow;</li> <li>Sympathetic ganglia: Paravertebral, prevertebral and terminal</li> <li>Adrenergic</li> <li>Control from higher centres: hypothalamus, thalamus, limbic cortex, Visceral brain.</li> </ul>		
18	Autonomic nervous system II Parasympathetics	<ul style="list-style-type: none"> <li>Cranial outflow (Cranial nerves 3, 7, 9 10)</li> <li>Autonomic ganglia of the head and neck</li> <li>Sacral outflow</li> </ul>		
19	Principles of ascending and descending tracts			

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

**Learning Objectives of Dissection**

.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
20.	MENINGES AND BLOOD VESSELS		<ul style="list-style-type: none"> <li><u>Meninges</u> Duramater Arachnoid Piamater</li> <li>Blood supply and Nerve supply of duramater</li> <li>Dural folds</li> <li><u>Dural venous sinuses:</u> Paired Unpaired</li> <li>Arachnoid villi &amp; granulations</li> <li><u>Subarachnoid space</u> CSF flow  subarachnoid cistern</li> <li><u>Blood vessels</u> Veins Veins of sup.lat.</li> </ul>	<ul style="list-style-type: none"> <li>Layers of duramater</li> <li>Branches of circle of willis Cortical Striate</li> </ul>		<ol style="list-style-type: none"> <li>Parts of duramater</li> <li>Dural venous sinuses</li> <li>Subarachnoid cisterns</li> <li>Cerebello medullary cisterns</li> <li>Cisterna pontis</li> <li>Interpeduncular</li> <li>Veins of sup. Lat.surface</li> <li>Veins of med. Surface</li> <li>Vertebral art &amp; brs.</li> <li>Basilar art. &amp; brs.</li> <li>Int. carotid art &amp; brs.</li> <li>Circle of willis</li> <li>Brs. of circle of Willis</li> </ol>	<ul style="list-style-type: none"> <li>Circulation of CSF</li> <li>Quickenstedt's test</li> <li>Direction of flow of blood in veins</li> </ul>
						<b>APPLIED ASPECTS</b>	

		Surface. Veins of med. Surface Arteries Formation of Circle of willis Territorial supply of ACA, MCA, PCA		<ul style="list-style-type: none"> <li>• Hydrocephalus</li> <li>• Lumbar puncture</li> <li>• Cisternal puncture</li> <li>• Quickenstedt's test</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
21.	MEDULLA		<ul style="list-style-type: none"> <li>• Extent</li> <li>• External features ant. &amp; post. med fissure</li> <li>• Attachments of cranial nerves</li> </ul> Pyramid Olive Gracile and cuneate tubercles Inf. cer.peduncle <ul style="list-style-type: none"> <li>• <u>TS of closed part</u></li> </ul> Motor decussation Funiculus cuneatus Funiculus Gracillis Spinal nu. of trigeminal Sensory decussation Internal arcuate fibres Medial lemniscus Spinocerebellar tract Spinothalamic tract <ul style="list-style-type: none"> <li>• <u>TS of open part</u></li> </ul> Pyramids Olive Arcuate nu.  Blood supply  Area postrema: (Centre for vomiting)	<ul style="list-style-type: none"> <li>• <u>TS of closed part</u></li> </ul> Int.arcuate fibres Med. Lemniscus Sp. Cerebellar tracts Sp. Thalamic tracts CN Nuclei  Trigeminal Nu. Of tractus  Solitarius CN Nuclei Spinal nu. Of V Cuneate nu. Gracile nu. <ul style="list-style-type: none"> <li>• <u>TS of open part</u></li> </ul> Sp. Cerebellar Sp thalamic CN nu.  Trigeminal VII VIII  Vestibular  Cochlear	<ul style="list-style-type: none"> <li>• <u>TS of closed part</u></li> <li>• <u>TS of open part</u></li> </ul> Components of Vestibular nu. Cochlear nu. -	1. Ext. features Ant. & post. Median fissure Pyramid Olive Gracile & cuneate Tubercle & nucleus Inf. cer. Peduncle 2. TS of closed part 3. TS of open part	<ul style="list-style-type: none"> <li>• Formation of med.lem</li> </ul>
						<b>APPLIED ASPECTS</b>	
						<ul style="list-style-type: none"> <li>• Medial medullary syndrome</li> <li>• Lat. Medullary syndrome (Wallenberg syndrome)</li> <li>• Bulbar palsy</li> <li>• Medulla in increased intracranial tension</li> </ul>	

				IX, X, XI XII • Ant ext arcuate fib. • Post. ext. arcuate fib. Med. Sp & Lat. lemn	
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S.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
22.	CEREBELLUM		<ul style="list-style-type: none"> <li>External features Vermis</li> <li>Hemispheres Vallecula Fissures Prima</li> <li>Horizontal Post. lat.</li> <li>Lobes Anatomical FNL Corpus Cerebelli Functional</li> <li>Archicerebellum</li> <li>Paleocerebellum</li> <li>Neocerebellum</li> <li>Cerebellar peduncles Superior Middle Inferior</li> <li>Cerebellar nuclei Fastigius Globose &amp; Emboliformis (Nu. Interpositus ) Denate</li> <li>Functions</li> <li>Blood supply</li> </ul>	<ul style="list-style-type: none"> <li>Medullary velum: Superior Inferior</li> </ul>	<ul style="list-style-type: none"> <li>Parts of vermis</li> <li>Connections of cerebellum</li> </ul>	<ol style="list-style-type: none"> <li>Vermis</li> <li>Vallecula</li> <li>Hemisphere</li> <li>Fissures</li> <li>Lobes</li> <li>Cerebellar peduncles</li> <li>Cerebellar nuclei</li> </ol> <ul style="list-style-type: none"> <li>Connections</li> </ul>	
						<b>APPLIED ASPECTS</b>	
						<ul style="list-style-type: none"> <li>Lesions of cerebellum  Cerebellar ataxia Dysidiokinesis</li> </ul>	

S.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS	SUMMARY
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			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
			23.	PONS		Extent: External features Basilar sulcus MCP Positions of nerve  TS of pons Basilar part Pontine nuclei Cortico-ponto- Cerebellar fibres Cortico-sp fibres Tegmentum Position of med.sp. Trigem & lat. Lemiscus Trapezoid body CN Nu. Trigeminal Motor  Mesencephalic Principal Sensory Abducent Facial  Vestibulocochlear Blood supply	- <ul style="list-style-type: none"> <li>Position of Med. Lemniscus Spinal lemniscus Trigeminal lemniscus Lat. Lemniscus Trapezoid body</li> <li>CN nuclei VI VII V Motor Sensory</li> </ul> Vestibulocochlear
						<b>APPLIED ASPECTS</b>	
						<ul style="list-style-type: none"> <li>Pontine hemorrhage</li> </ul>	

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			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
24.	IV VENTRICLE		<ul style="list-style-type: none"> <li>Extent</li> <li>Boundaries Roof Sup.cerebellar ped Supmedullary vellum with fused lingula Inf. cerebellar ped InfMedullary vellum</li> </ul> Floor Median sulcus Median eminence Facial colliculus Medullary striae	<ul style="list-style-type: none"> <li>Tela Choroidea and Choroid Plexus</li> </ul>	<ul style="list-style-type: none"> <li>Calamus scriptorius</li> <li>Obex</li> <li>Locus cerlulus</li> </ul>	<ul style="list-style-type: none"> <li>Features of floor and roof of IV ventricle</li> </ul>	<ul style="list-style-type: none"> <li>Formation and flow of CSF</li> </ul>



			Sup. Fovea Inf. fovea Hypoglossal triangle Vagal triangle Vestibular area			<b>APPLIED ASPECTS</b>
			<ul style="list-style-type: none"> <li>• Apertures Lateral (Luschka) Median (Magendie)</li> <li>• Recesses Lateral(2) Dorsal</li> </ul>			<ul style="list-style-type: none"> <li>• Hydrocephalus blockage of apertures</li> <li>• Trigeminal tractotomy</li> <li>• Cisternal puncture</li> <li>• Queckensted's test</li> </ul>

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			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
25.	MIDBRAIN		<ul style="list-style-type: none"> <li>• Extent</li> <li>• External features</li> <li>• Cerebral peduncle Crus cerebri Substantia nigra Tegmentum</li> <li>• Tectum Colliculi Brachium of inf. col.</li> <li>• TS at level of Inf Colliculus Crus cerebri Sub nigra Tegmentum IV N. Nucleus Central grey Cerebral aqueduct Decussation of supcer peduncles Inf colliculus</li> <li>• TS at level of Sup Col Crus cerebri Sub nigra Tegmentum III N. Nucleus Central grey Red nucleus Sup colliculus</li> </ul>	<ul style="list-style-type: none"> <li>• Brachium of Inf col</li> <li>• Pineal body</li> <li>• Position of -Med. Leminiscus -Spinal leminiscus -Trigeminal leminiscus -Lateral leminiscus</li> <li>• Position of -Med. Leminiscus -Spinal leminiscus -Trigeminal leminiscus</li> </ul>	<ul style="list-style-type: none"> <li>• Bachium of sup. Collicus</li> <li>• Post. commissure</li> <li>• Habenular commissure</li> <li>• Med longitudinal bundle</li> <li>• Tectosp. tract</li> <li>• Mesencephalic nu.</li> <li>• Med longitudinal bundle</li> <li>• Tectosp. tract</li> <li>• Ret. Formation</li> </ul>	<ol style="list-style-type: none"> <li>1. Cerebral peduncle</li> <li>2. Tectum colliculi</li> <li>3. Brachium of Inf colliculus</li> <li>4. MGB</li> <li>5. TS</li> </ol>	
						<b>APPLIED ASPECTS</b>	<ul style="list-style-type: none"> <li>• Crossed paralysis</li> <li>• Light reflex</li> <li>• Accomodation reflex</li> </ul>

S.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
26.	CEREBRUM		<ul style="list-style-type: none"> <li>• Classification</li> <li>• Association fibres Intracortical</li> </ul>		<ul style="list-style-type: none"> <li>• Stria of gennari</li> <li>• Forceps</li> </ul>	<ol style="list-style-type: none"> <li>1. Short asso. Fibres</li> <li>2. Sup. Long.</li> </ol>	<ul style="list-style-type: none"> <li>• Corona radiata</li> <li>• Int. capsule</li> </ul>

			bands of baillargar Extracortical fibres Short asso Long asso Cingulum Sup. Long. bundle Inf. long. bundle Fasciculus uncinatus <ul style="list-style-type: none"> <li>• Commisural          fibres          Corpus          callosum          Ant. comm.          Habenular          Fornix</li> <li>• Projection          fibres</li> </ul> CS, CN <ul style="list-style-type: none"> <li>• Parts of int.          capsule:          Ant.limb          Genu          Postr. limb</li> </ul> Sublentiform Retrolentiform	<ul style="list-style-type: none"> <li>• major</li> <li>• Forceps          minor</li> <li>• Tapetum</li> <li>• Fornix</li> </ul> <ul style="list-style-type: none"> <li>• Parts of          corpus          callosum</li> <li>• Components          of each part</li> </ul>	bundle 3. Inf. long. bundle 4. Cingulum 5. Fasciculus uncinatus 6. Corpus callosum (parts of) 7. Ant. comm.. 8. Optic chiasma 9. Post. comm 10. Habenular 11. Fornix (parts of) 12. Corona radiata 13. Int. capsule	<ul style="list-style-type: none"> <li>• Fornix and          its          connections</li> </ul>
<b>APPLIED ASPECTS</b>						
<ul style="list-style-type: none"> <li>• Effect of lesion of internal          capsule Hemiplegia</li> </ul>						

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			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
27.	WHITE MATTER		<ul style="list-style-type: none"> <li>• Extent</li> <li>• External          features</li> <li>• Cerebral          peduncle          Crus          cerebri          Substantia          nigra          Tegmentum</li> <li>• Tectum          Colliculi          Brachium of          inf. col.          MGB</li> <li>• TS at          level of          Inf          Colliculus          Crus cerebri          Sub nigra          Tegmentum          IV N.          Nucleus          Central grey          Cerebral          aqueduct</li> </ul>	<ul style="list-style-type: none"> <li>-</li> <li>• Brachium          of Inf col</li> <li>• MGB</li> <li>• Pineal          body</li> <li>• Position          of          -Med.          Leminscus          -Spinal          leminscus          -          Trigeminal          leminscus          -Lateral          leminscus</li> </ul>	<ul style="list-style-type: none"> <li>-</li> <li>• Brachium of          sup. Colliculus</li> <li>• Post.          commissure</li> <li>• Habenular          commissure</li> <li>• Med          longitudinal          bundle</li> <li>• Tectosp. tract</li> <li>• Mesencephalic          nu.</li> </ul>	6. Cerebral peduncle 7. Tectum colliculi 8. Brachium of Inf col 9. MGB 10. Pineal body 11. TS	

			Decussation of sup,cer peduncles Inf colliculus	<ul style="list-style-type: none"> <li>Position of -Med. Leminscus</li> <li>-Spinal leminscus</li> <li>- Trigeminal leminscus</li> </ul>	<ul style="list-style-type: none"> <li>Med longitudinal bundle</li> <li>Tectosp. tract</li> <li>Ret. Formation</li> </ul>	<b>APPLIED ASPECTS</b> <ul style="list-style-type: none"> <li>Effect of lesion of internal capsule- Hemiplegia.</li> </ul>
			<ul style="list-style-type: none"> <li>TS at level of Sup Col</li> <li>Crus cerebri</li> <li>Sub nigra</li> <li>Tegmentum III N.</li> <li>Nucleus Central grey</li> <li>Red nucleus</li> <li>Sup colliculus</li> </ul>			

S.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
28.	LATERAL VENTRICLE		<ul style="list-style-type: none"> <li>Extent of components</li> <li>Ant. horn</li> <li>Central part</li> <li>Post. horn</li> <li>Inf. horn</li> </ul>	<ul style="list-style-type: none"> <li>Choroid fissure</li> <li>Tela choroidae</li> <li>Hippocampus</li> <li>Fornix</li> <li>Alveus</li> <li>Fimbria</li> <li>Crus</li> <li>Body</li> <li>Column</li> </ul>	<ul style="list-style-type: none"> <li>Dentate gyrus</li> <li>Indusium griseum</li> </ul>	<ol style="list-style-type: none"> <li>Ant. horn</li> <li>Post. horn</li> <li>Inf. horn</li> <li>Central part</li> <li>Structures forming the boundaries</li> <li>Choroid fissure</li> <li>Tela choroidae</li> <li>Fornix - parts</li> <li>Hippocampus</li> </ol>	<ul style="list-style-type: none"> <li>Choroid fissure</li> </ul>
						<b>APPLIED ASPECTS</b>	
						<ul style="list-style-type: none"> <li>Ventriculography</li> <li>Pneumoencephalography</li> <li>CT</li> </ul>	

S.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
29.	THALAMUS AND III VENTRICLE		<ul style="list-style-type: none"> <li>Diencephalon Dorsal</li> <li>Diencephalon Ventral diencephalon</li> <li>Dorsal diencephalon Dorsal thalamus</li> <li>Metathalamus MGB</li> <li>LGB</li> <li>Ventral</li> </ul>	<ul style="list-style-type: none"> <li>Epithalamus</li> <li>Habenular triangle</li> <li>Habenular</li> <li>Commissure</li> <li>Post. commissure</li> </ul>	<ul style="list-style-type: none"> <li>Afferents &amp; efferents of various nuclei</li> <li>Connections of thalamic nuclei to cortex.</li> <li>Ant. thalamic peduncle / radiation</li> <li>Sup. Thalamic</li> </ul>	<ol style="list-style-type: none"> <li>Dorsal thalamus</li> <li>Epithalamus</li> <li>Metathalamus sulcus</li> <li>Hypothalamus</li> <li>Hypothalamus</li> <li>Post. pituitary</li> </ol>	<ul style="list-style-type: none"> <li>Functional correlation of thalamic connections</li> </ul>





S.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
32..	BRAIN SECTIONS II		<ul style="list-style-type: none"> <li>• <u>Coronal section passing through basilar part of pons</u></li> <li>• Sup. Long. fissure</li> <li>• Body of corpus callosum</li> <li>• Lat. Vent. With choroid plexus</li> <li>• Septum pellucidum</li> <li>• Fornix</li> <li>• Caudate nucleus</li> <li>• Thalamus</li> <li>• Corona radiata</li> <li>• Int. capsule</li> <li>• Lentiform nucleus</li> <li>• Crus cerebri</li> <li>• Inf. horn of lat. Ventricle with choroid fissure</li> <li>• Central canal</li> <li>• <u>Coronal section through splenium</u></li> <li>• Splenium</li> <li>• Lat.vent. - post. horn</li> <li>• Inf. horn of lat. Vent</li> </ul>	<ul style="list-style-type: none"> <li>• Insula</li> <li>• Claustrum</li>   <li>• Tail of caudate nucleus</li> <li>• Hippocampus</li> <li>• Tapetum</li> <li>• Optic radiation</li> <li>• Hippocampus</li> </ul>	<ul style="list-style-type: none"> <li>• Forceps major</li> <li>• Dentate gyrus</li> </ul>	<ul style="list-style-type: none"> <li>• Features in all sections</li> </ul>	