Personal information

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Marks

Total Marks
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Marks Obtain
61

Paper Question & Answers Detail`s

The true statement about the courses taken by the tracts given below is: a. b. c. d. e.	**1**	◯ A The fasciculus gracilis does not cross to the opposite side of the neural axis. [T] ◯ B The spinotectal tract does not cross to the opposite side of the spinal cord ◯ C The lateral spinothalamic tract does not cross to the opposite side of the spinal cord. ◯ D The posterior spinocerebellar tract does cross to the opposite side of the neural axis. ◯ E The anterior spinothalamic tract immediately crosses to the opposite side of the spinal cord.
The true statement about the courses taken by the tracts given below is:	**1**	◯ A The fasciculus gracilis does not cross to the opposite side of the neural axis. [T] ◯ B The spinotectal tract does not cross to the opposite side of the spinal cord ◯ C The lateral spinothalamic tract does not cross to the opposite side of the spinal cord. ◯ D The posterior spinocerebellar tract does cross to the opposite side of the neural axis. ◯ E The anterior spinothalamic tract immediately crosses to the opposite side of the spinal cord.
Hypothalamus form part of	**1**	◯ A forebrain [T] ◯ B Basal ganglia ◯ C brain stem ◯ D cerebral hemispheres ◯ E midbrain
This comprises nerve tissue and downgrowth from hypothalamus	**1**	◯ A adrenal medulla ◯ B anterior pituitary ◯ C mammillary bodies ◯ D posterior pituitary [T] ◯ E thymus
Hypothalamus	**1**	◯ A forms floor of the interpeduncular fossa ◯ B forms upper part of lateral wall of 3rd ventricle ◯ C forms lower lateral wall of 3rd ventricle [T] ◯ D Is mainly made up of of hite matter ◯ E Is divided into medial and lateral zones by the internal capsule
All of the following structures are parts of Diencephalon	**1**	

		A caudate nucleus [T] B epithalamus C hypothalamus D Metathalamus E Subthalamus
Which statements concerning the spinal cord is true?	**1**	A The anterior and posterior gray columns on the two sides are united by a white commissure. B The terminal ventricle is the expanded lower end of the fourth ventricle. C The large multipolar neurons in the anterior gray horns give rise to the alpha efferent nerve fibers in the ventral nerve roots. [T] D The substantia gelatinosa is located in the middle of each posterior gray column. E The nucleus dorsalis (Clarke's column) is a group of nerve cells found in the posterior gray column and restricted to the lumbar segments of the cord
Which of the following associations regarding neural tube development is most correct	**1**	A Diencephalon--- thalamus , hypothalamus [T] B Metencephalon--- mid brain, cerebral aqueduct C Myelencephalon--- cerebellum , 3rd ventricle D mesencephalon---- cereral hemispheres, lateral ventricle E telencephalon---- Aqueduct of sylvius
Neuroepithelium of the neural tube give rise to A B * C D E**	**1**	A Chromaffin cells B Ependymal cells [T] C Melanocytes D Schwann cells E spinal ganglion cells
Which one of the following cranial nerves, is a purely Motor nerve.	**1**	A Olfactory B Optic C Abducent [T] D Vestibulo-cochlear E Vagus
Which one of the following is the most appropriate artery supplying basal nuclei:	**0**	A Anterior cerebral Artery B Middle cerebral Artery [T] C Posterior cerebral Artery D Vertebral artery E Posterior inferior cerebellar artery
The ventral surface of the medulla oblongata contains white matter structures called medullary pyramids. Fibres of which of the following tracts is responsible for producing these elongated elevations on the ventral aspect of medulla?	**1**	A Reticulospinal tract B Vestibulospinal tract C Rubrospinal tract D Tectospinal tract E Corticospinal tract [T]
Which statement concerning the white columns of the spinal cord is true:	**0**	A The posterior spinocerebellar tract is situated in the posterior white column. B The anterior spinothalamic tract is found in the anterior white column. [T] C The lateral spinothalamic tract is found in the anterior white column. D The fasciculus gracilis is found in the lateral white column. E The rubrospinal tract is found in the anterior white column
which of the following statements regarding the spinal cord is true?	**1**	

A The spinal cord has a cervical enlargement for the brachial plexus. [T]

B The spinal nerves are attached to the spinal cord by anterior and posterior rami.

C In the adult, the spinal cord usually ends inferiorly at the lower border of L4 vertebra

D The ligamentum denticulatum anchors the spinal cord to the pedicles of the vertebra along each side.

E The central canal does not communicate with the fourth ventricle of the brain.

Nissl bodies in the soma of a neuron are composed of:	**1**

A synaptic vesicles
B polyribosomes and Rough endoplasmic reticulum [T]
C lipoproteins, and melanin pigments
D neurofilaments and microtubules
E SER and mitochondria

The axon hillock is that part of a neuron from which an axon begins. its main content is	**0**

A rough endoplasmic reticulum
B ribosomes
C Microtubules [T]
D Golgi complex
E synaptic vesicles

Myelination of peripheral nerves is accomplished by	**1**

A astrocytes
B oligodendrocytes
C schwann cells [T]
D neural crests
E basket cells

Myelination of nerve fibres in the central nervous system is brought about by:	**1**

A astrocytes
B oligodendrocytes [T]
C schwann cells
D neural crest cells
E Mortinotti cells

Identify the correct statement about the cell of origin of the tracts listed below:	**0**

A The fasciculus cuneatus arises from the cells in the substantia gelatinosa.

B The anterior spinothalamic tract arises from the cells in posterior root ganglion.

C The fasciculus gracilis arises from the cells in the nucleus dorsalis (Clarke's column)

D The anterior spinocerebellar tract arises from the cells in the posterior root ganglion.

E The lateral spinothalamic arises from the cells in the substantia gelatinosa. [T]

Autonomic ganglia contain the cell bodies of autonomic nerves. Which of the following autonomic ganglia is sympathetic in nature	**0**

A Ciliary ganglion
B Superior mesenteric ganglion [T]
C Otic ganglion
D Pterygopalatine ganglion
E Submandibular ganglion

Parasympathetic Preganglionic neurons that originate from brainstem nuclei travel in Cranial nerves to synapse in parasympathetic ganglia. Which of the following cranial nerves carry parasympathetic fibers from the Edinger Westphal nucleus?	**0**

A Optic nerve
B Olfactory nerve
C Oculomotor nerve [T]
D Facial nerve
E Vagus nerve

During childbirth, an excessive anteroposterior compression of the head of the baby may tear the attachment of the falx cerebri from the tentorium cerebelli. The bleeding that follows is likely to be from which of the following venous sinuses?	**0**

		A Occipital sinus B Sigmoid sinus C Straight sinus [T] D Superior sagittal sinus E Inferior sagittal sinus
Which of the following opening in the skull connects the pterygopalatine fossa to the nasal cavity?	**0**	A Infraorbital fissure B Sphenopalatine foramen [T] C Pterygomaxillary fissure D Foramen rotundum E Palatine canal
Foramen Rotundum is an important opening in the skull that connects the pterygopalatine fossa to the middle cranial fossa .Which of the following nerves passes through the foramen rotundum to reach the pterygopalatine fossa?	**0**	A Ophthalmic nerve B Maxillary nerve [T] C Mandibular nerve D Zygomatic nerve E Nasopalatine nerve
Sympathetic supply to target organs is composed of pre-ganglionic and post ganglionic fibers. The nerve cell bodies of pre-ganglionic fibers are most likely present in:	**0**	A Intermediate region B Intermediolateral horn [T] C Lateral column D Ventral horn E Dorsal horn
Which of the following neurons most likely innervate the extrafusal skeletal muscle fibers?	**1**	A Alpha motor neurons [T] B Beta motor neurons C Delta motor neurons D Gamma motor neurons E Interneurons
Which of the following neurons most likely innervate the intrafusal skeletal muscle fibers?	**1**	A Alpha motor neurons B Beta motor neurons C Delta motor neurons D Gamma motor neurons [T] E Interneurons
Physiologically action potential is most likely generated in which part of neuron?	**1**	A Axon Hillock B Axon terminal C Dendrites D Initial segment of axon [T] E Soma
Which one the following neurotransmitters is most likely secreted by the axons of substantia nigra neurons that project to the caudate & putamen nuclei?	**1**	A Acetylcholine B Dopamine [T] C GABA D Norepinephrine E Serotonin
Which of the following sensations is most likely carried by Dorsal column- medial Lemniscal pathway?	**0**	A Crude touch B Itch C Pain D Temperature E Vibration [T]
Which one of the following sensations is most likely carried by anterolateral pathway?	**0**	A Fine touch B Movement against skin C Position sense D Tickle [T] E Vibration
Which system transmits somatosensory information with the highest degree of temporal and spatial fidelity?	**1**	

		A Anterolateral system B Dorsal column–medial lemniscal system [T] C Corticospinal system D Spinocerebellar system E Spino-olivary tract
Which one of the following sensory receptors is most likely responsible for initiation of withdrawal reflex?	**1**	A Cutaneous free nerve endings [T] B Golgi tendon organ C Joint capsule receptors D Muscle spindle E Pacinian corpuscle
A mother sleeps through many kinds of noise but wakes up promptly when her baby cries. This is an example of:	**0**	A Arousal value B Conditioned reflex C Facilitation D Habituation E Sensitization [T]
Which of the following parts of Labyrinth is most likely involved in maintenance of equilibrium at rest and in linear acceleration in upright position?	**1**	A Ampulla B Cochlea C Saccule D Semicircular canals E Utricle [T]
Which neurotransmitter activates alpha and beta adrenergic receptors equally well?	**1**	A Acetylcholine B Dopamine C Epinephrine [T] D Nicotine E Norepinephrine
Neurotransmitters cause excitation and inhibition of post synaptic neurons by various mechanisms. Prolonged changes in neuronal activity are most likely achieved through the activation of:	**1**	A G-protein-coupled channels [T] B Ligand gated chloride channels C Ligand gated potassium channels D Ligand gated sodium channels E Voltage-gated potassium channels
Efferent pathways of the cerebellum most likely originate from the:	**1**	A Basket cells B Deep nuclear cells [T] C Granular cells D Purkinje cells E Stellate cells
Which one of the following is most likely an example of non-declarative memory?	**0**	A Facts & Events B Habituation C Memory of Languages D Simple classical conditioning E Skill habits [T]
Type B fibers mainly serve as :	**0**	A Motor to extrafusal fibers B Motor to intrafusal fibers C Post ganglionic parasympathetic D Post ganglionic sympathetic E Preganglionic autonomic fibers [T]
Which one of the following statements regarding the dorsal lateral geniculate nucleus is most likely?	**0**	A Layer I is called parvocellular layer B Layer I receives signal form lateral half of the retina C Layer I receives signals from M ganglion cells [T] D Layer IV receives signal from the ipsilateral retina E Layer IV receives signals from Y ganglion cells
Cerebellum receives input from various parts of the brain including motor cortex. Signals from motor areas of the cortex reach the contra-lateral cerebellar hemisphere after first passing through which structure?	**1**	

		A Caudate nucleus B Dorsal column nuclei C Pontine nuclei [T] D Red nucleus E Thalamus
Unipolar neurons are most likely found in:	**0**	A Basal ganglia [T] B Cerebellum C Cerebrum D Dorsal root ganglia E Spinal cord
Which of the following parts of Labyrinth is most likely involved in maintenance of equilibrium during angular acceleration in horizontal plane?	**0**	A Anterior Semicircular canals B Lateral Semicircular canals [T] C Posterior Semicircular canals D Saccule E Utricle
A 60 years old lady presented to Neurology unit complaining of difficulty in initiating movement. On examination the patient was found having tremors. Her muscle tone was increased and had an expressionless face. Which part of the brain is most likely damaged in this case?	**0**	A Caudate nucleus B Globus Pallidus C Putamen nucleus D Substantia nigra [T] E Subthalamic nucleus
A 55 yrears old male patient visited Neurology OPD of Northwest Teaching Hospital for some neurological problem. On examination he was unable to recognize objects by feeling them with hands. Which area of the brain is most likely damaged?	**1**	A Frontal cortex B Somatosensory area I C Somatosensory area II D Somatosensory Association area [T] E Wernicke's area
Which statement is most likely regarding Organ of Corti?	**0**	A Depolarization of hair cells results from influx of Na+ ions. B Inner hair cells are arranged in a three rows. C Outer hair cells are about 3500 in number. D Outer hairs cells have motor innervations. [T] E Steriocillia of hair cells are bathed in perilymph.
Which of the following enzymes act as the first control point in the biosynthesis of prostaglandinds	**0**	A Cyclooxygenase-1 B Cyclooxygenase-2 C LIPOOXYGENASE D peroxidase E Phospholipase A2 [T]
45 years old lady presents to you in OPD with complaints of flapping tremors, slurring of speech, blurring of vision, vomiting and somnolence from last two weeks. She also has history of chronic liver disease. What could be the most probable cause for these CNS symptoms in this patient?	**0**	A Hyperammonia [T] B Hyperbilrubinemia C Hypercalcemia D Hyperkalemia E Hyperglycemia
Which of the following coenzymes is required for the conversion of dopa to dopamine?	**1**	A Biotin B nicotinamide adenine dinucleotide (NAD) C pyridoxalphosphate [T] D tetrahydrofolate E Thiamine Pyrophosphate (TPP)
Which of the following can result as a result of faulty splicing of hnRNA?	**0**	A Bloom's syndrome B beta-thalassemia [T] C colon cancer D Fanconi's Anemia E sickle cell disease
Which of the following layers of the scalp is termed danger area of scalp and can cause spread of infection to the intra-dural venous sinuses?	**0**	

		A skin of scalp B dense connective layer C aponeurotic layer D loose connective tissue layer [T] E pericranium
A patient complains of frontal sinus pressure. You determine that it is an infection and you administer mucosal shrinking medication. The mucus will then drain into the nasal cavity through which of the following?	**0**	A Spheno-ethmoidal recess B Semilunar Hiatus [T] C Inferior meatus D Sphenopalatine canal E Nasolacrimal Duct
Examination of a patient indicates that he has a medially directed squint. Which of the following nerves is most likely damaged ?	**0**	A Olfactory nerve B Optic nerve C Oculomotor nerve D Trochlear nerve E Abducens nerve [T]
A thirty year old lady consulted her physician for a trapped fish bone in her throat On examination the physician located the bone in the piriform recess.Which of the following nerves is most vulnerable to injury during removable of the fish bone from the piriform recess?	**0**	A Vagus nerve B Glossopharyngeal nerve C Superior laryngeal nerve D External branch of superior laryngeal nerve E Internal branch of superior Laryngeal nerve [T]
Which of the following nerves carries post-synaptic parasympathetic nerve fibres which innervate the lacrimal gland?	**0**	A Vidian nerve c. d B Zygomatic nerve [T] C Nasociliary nerve D Deep petrosal nerve E Greater petrosal nerve
Regarding the optic disc which of the following is the correct statement?	**0**	A The optic disc lies at the junction of the sclera and the cornea. B The optic lies at the posterior pole of the eyeball. C The optic disc contains the central artery of the retina [T] D The optic disc is particularly sensitive to light. E Contains retinal receptors
A 45 years old patient comes to the ophthalmologist. The doctor observes that his pupil remains constricted even when the light in the room is very dim. This indicates damage to which of the following nerves?	**1**	A Abducens nerve B Oculomotor nerve C Ophthalmic nerve D Superior cervical ganglion [T] E Trochlear nerve
A woman receives treatment from his physician which contains medicine that stimulate autonomic nervous system. If the parasympathetic nerves to the eyeball are stimulated, which of the following actions will occur?	**1**	A Enhanced vision for distant objects B Dilation of the pupil C Contraction of capillaries in the iris D Constriction of the pupil [T] E Flattening of the lens
The Pterion is a point of convergence of sutures between the frontal, sphenoid, parietal, and squamous temporal bones.Which of the following vessels does the pterion overlie thus making it an important clinical landmark?	**1**	A Superior sagittal sinus B Confluence of sinuses C Anterior branches of middle meningeal artery [T] D Anterior cerebral artery E Straight sinus
The pterygomandibular raphe is a .It serves as a point of attachment for which of the following muscle pairs?	**0**	A Masseter and palatopahryngeus B Masseter and middle pterygoid C Buccinator and superior pharyngeal constrictor [T] D Buccinator and middle pharyngeal constrictor E Buccinator and inferior pharyngeal constrictor
Structure derived from the surface ectoderm include the :	**1**	

		A all of the following [T] B corneal epithelium C external acoustic meatus D lens E otic vesicle
Choroid is derived from the :	**1**	A loose mesenchyme near the optic cup B mesoderm surrounding the eye primordium C mesenchyme from the occipital myotomes D mesenchyme between sclera and pigmented layer of the retina [T] E mesenchyme from the first pair of the pharyngeal arches
Failure of choroid fissure to close results in	**0**	A congenital detached retina B congenital aniridia C congenital apakia D coloboma iridis [T] E microphthalmos
The eyes begin to form as population of cells in the:	**0**	A floor plate B mesencephalon C midbfrain D prosencephalon [T] E rhombencephalon
Which of the following is responsible for development of neural retina:	**1**	A inner layer of the optic disc [T] B interaction between optic cup and optic stalk C outer layer of the optic cup D outer layer of the optic stalk E outer layer of the optic groove
Which of the following is correct in regards to pupillary membrane	**0**	A from ciliary body B membrane that separate the cornea from the eyelid C source of blood for the retina D source of blood supply for developing lense [T] E source of blood supply for cornea
Corneal development is induced by	**0**	A Lense placode B lense vesicle [T] C optic cup D optic vesicle E optic stalk
coloboma is due to which of the following?	**0**	A abnormal development of the lense vesicle B abnormal development tof the optic cup C failure of the lense vesicle to close up D failure of the optic stalk to close up E failure of the choroid fissure to close up [T]
The transparent lens in the human eye is held in its place by	**1**	A smooth muscles attached to the iris B ligaments attached to the ciliary body [T] C ligaments attached to the iris D smooth muscles attached to the ciliary body E vitrous humor posteriorly and aquous humour in posterior chamber anteriorly hold lense in Place
A cornea transplant is never rejected in humans because	**1**	A it consists of enucleated cells B it is a non-living layer C it has no blood supply [T] D its cells are least penetrable by bacteria E inner layer of cornea is immune to antibodies
The foramen of Magendie is located in the:	**0**	

		A Inferior horn of lateral ventricle B Roof of 3rd ventricle C Anterior horn of lateral ventricle D Floor of 4th ventricle E Roof of 4th ventricle [T]
The most common site of obstruction to the flow of CSF in the ventricular system of the brain to cause hydrocephalus is:	**0**	A Cerebral aqueduct [T] B Interventricluar foramen C Foramen of Magendie D Central canal E Foramen of Luscha
The lateral ventricle communicates with the third ventricle through: a. * b.	**0**	A Foramen of Monro [T] B Foramen of Lusch C Foramen of Magendie D Aqueduct of Sylvius E Central canal
The third ventricle is the cavity of	**1**	A Mesencephalon B Metencephalon C Myelencephalon D Diencephalon [T] E Telencephalon
Which one of the following is not a feature of the floor of the fourth ventricle?	**0**	A Median sulcus B Facial colliculus C Hypoglossal triangle D Vestibular area E Oculomotor nucleus [T]
Which of the following statements best describes the fourth ventricle?	**1**	A The roof is also called the rhombhoid fossa B The pineal body is a relation of the roof of the fourth ventricle C The fourth ventricle is the cavity of midbrain D The fourth ventricle communicates with the subarachnoid space via three apertures [T] E The middle cerebellar peduncles form the lateral boundaries of the 4th ventricle.
Middle cerebellar peduncle connects cerebellum with which one of the following structures?	**1**	A Midbrain B Pons [T] C Medulla oblongata D Spinal cord E Pons and medulla oblongata
Posterior spinal artery supplies which one of the following regions:	**1**	A Posterior 1/3rd of spinal cord [T] B Posterior 2/3rd of spinal cord C Anterior 1/3rd of spinal cord D Anterior 2/3rd of spinal cord E Lower part of medulla
Regarding the connection of midbrain , which portion of midbrain cells are involved in general light reflexes:	**0**	A Red nucleus B Superior colliculus [T] C Inferior colliculus D Substantianigra E Medial geniculate body
Regarding the descending tracts of spinal cord, which of the following pathway is responsible for facilitating the tone of flexor limbs musculature:	**1**	A Tectospinal tract B Rubrospinal tract [T] C Corticospinal tract D SpiNothalamic tract E Vestibulospinal tract
Which of the following dural venous sinuses drains directly into	**0**	

the internal jugular vein		A Sphenoparietal sinus B Cavernous sinus C Superior petrosal sinus D Inferior petrosal sinus [T] E Transverse sinus
Which of the following is an example of paired dural venous sinuses	**0**	A Sigmoid sinus [T] B Superior sagittal sinus C Inferior sagittal sinus D Straight sinus E Inter cavernous sinus
Which of the following dural venous sinuses receives blood from the great Cerebral vein of Galen	**0**	A Transverse sinus B Occipital sinus C Straight sinus [T] D Confluence of sinuses E Cavernous sinus
Which of the following dural venous sinus lies in the free border of fall cerebri	**1**	A Superior sagital sinus B Inferior sagital sinus [T] C Transverse sinus D Occipital sinus E Cavernous sinus
Regarding the development of nervous system, which of the following is a primary brain vesicle? - - -	**1**	A Myelencephalon B Metencephalon C Telencephalon D Diencephalon E Mesencephalon [T]
Which of the following is the largest cell in the cerebral cortex:	**1**	A Martinoti cells B Cells of caja C Betz cells [T] D Fusiform cell E Stellate cells
If a person knows what to speak but is unable to speak, which area of the brain is most likely damaged?	**1**	A Broca's areea [T] B Premotor area C Primary motor cortex D Supplementary motor area E Wenicke's area
What is the most likely function of primary motor cortex?	**0**	A Bilateral movements B Execution of learned motor activities C Group muscle contraction D Individual muscle contraction [T] E Timing of movements
Histologically cerebral cortex is composed of 6 layers. The Pyramidal cells giving rise to fibers of corticospinal tract most likely lies in which layer of cortex?	**1**	A 2 B 3 C 4 D 5 [T] E 6
Preganglionic parasympathetic neuronal cell bodies which innervate the descending colon and rectum are found in which of the following structures?	**1**	A Ciliary ganglion B Dorsal motor nucleus of vagus C S2 and S3 spinal segments [T] D Superior cervical ganglion E Superior mesenteric ganglion
Pain receptors widespread in the superficial layers of the skin, as well as in certain internal tissues. Pain receptors in the skin are typically classified as which of the following?	**1**	

		A Encapsulated nerve endings B Free nerve endings [T] C Same type of receptor that detects position sense D Single class of morphologically specialized receptors E Merkel's Disc
The Blood Vessels, sweat glands and piloerector muscles of hairy skin are innervated by which of the following fiber types?	**1**	A Adrenergic postganglionic sympathetic fibers B Adrenergic preganglionic parasympathetic fibers C Adrenergic preganglionic sympathetic fibers D Cholinergic postganglionic parasympathetic fibers E Cholinergic postganglionic sympathetic fibers [T]
Sympathetic effector organs have two types of adrenergic receptors • α-adrenergic receptors • β -adrenergic receptors Which substance activates alpha and beta adrenergic receptors equally well?	**1**	A Serotonin - B Norepinephrine - C Acetylcholine - D Dopamine - E Epinephrine [T]
An elderly of man of 50 years was brought to the emergency with seizures. LAboraratory investigation was suggestive of alkalosis with a blood pH of 8,0. What is the most likely pathophysiolopgical explanation of his condition?	**0**	A Increase in neuronal activity caused by Hypercalcemia B Increase in neuronal activity caused by hypocalcemia [T] C Increase in neuronal activity caused by hyperkalemia D Increase in neuronal activity caused by hypokalemia E Increase in neuronal activity caused by hyponatremia
Forced rapid breathing results in alkalinization of the blood. As a result of this increase in pH which of thefollowing change occurs in neuronal activity?	**1**	A Decrease in neuronal activity B Increase in neuronal activity [T] C Initial decrease followed by decrease D Initial decrease followed by increase E No change in neuronal activity
Which of the following is most likely responsible for conversion of short term memory into long term memory?	**1**	A Amygdala B Frontal cortex C Hippocampus [T] D Hypothalmus E Motor cortex
Preganglionic parasympathetic neurons that innervate the descending colon and rectum are most likely found in which of the following structures?	**1**	A Ciliary ganglion B Dorsal motor nucleus of vagus C S2 and S3 spinal segments [T] D Superior cervical ganglion E Superior mesenteric ganglion
The sweat glands and piloerector muscles of hairy skin are most likely innervated by which of the following fibers? types?	**1**	A Adrenergic preganglionic parasympathetic fibers B Adrenergic preganglionic sympathetic fibers C Adrenergic postganglionic sympathetic fibers D Cholinergic postganglionic parasympathetic fibers E Cholinergic postganglionic sympathetic fibers [T]
Which one of the following neurotransmitters is released by slow pain fibers entering the spinal cord?	**0**	A Epinephrine [T] B Glutamate C Glycine D Substance P E Vasopressin
Which of the following is most likely the function of supra-chiasmatic nucleus of hypothalamus?	**0**	A Autonomic activity B Regulation of body water C Regulation of Circadian rhythm [T] D Sexual maturity E Temperature regulation
which retinal cells types carries excitatory as well as inhibitory signals ?	**0**	

		A Amacrine cells B Bipolar cells [T] C Cons D Ganglion cells E Rods
which retinal neuron is most likely conducting signal by action potential?	**1**	A Amcrine cells B Bipolar cells C Ganglion cells [T] D Cones E Rods
which one is least likely neurotransmitter secreted by retinal amacrine cells ?	**1**	A Acetylcholine B Dopamine C Glutamate [T] D Glycine E Gamma aminobutyric acid
The depolarization of the cochlear hear cells is most likely because of:	**1**	A Infux of calcium ions B Influx of potassium ions [T] C Influx of sodium ions D Outflux of calcium ions E Outflux of sodium ions
which one is least likely basic color vision neural pathway ?	**0**	A Amacrine cells [T] B Bipolar cells C Ganglion cells D Outer nuclear layer E Optic nerve fibers
which one is most likely basic component of neural visual pathway ?	**0**	A foveal region of retina B pigmented layer of eye C inner limiting membrane D outer nuclear layer [T] E stratum opticum
which one is least likely basic component of neural visual pathway ?	**0**	A inner plexiform cells layer B ganglion cells layer C outer plexiform cells layer D outer nuclear layer E stratum opticum [T]
which one is least likely to consider basic component of neural visual pathway ?	**0**	A ganglion cells layer B inner plexiform layer C outer plexiform layer D outer nuclear layer E pigmented cells layer [T]
which one is least likely statement regarding orange color	**0**	A green color perception result from stimulation of pigments ratio is 31:67:36 B Orange color light perception result by 580 nanomerters spectrum wave light C Orange color perception result from stimulation of pigments ratio is 99:42:0 D Orange color perception result from stimulation of pigments ratio is 83:83:0 [T] E Orange color perception result from combination of both red and green pigment stimulation
which one is least likely statement regarding color vision?	**0**	

		A Orange color perception result by stimulation of red and green pigments in equal proportion [T] B Only females are carriers for defective color blindness gen C Stimulation of all tricolor pigments gives white light perception D Retina detect different gradation of color in visual spectrum E Red green color blindness is most common abnormality
You are conducting a research to study the socio-psychological impact of acid throwing on women in Pakistan. You want to evaluate the impact through a "grounded theory" which means	**0**	A As a social researcher, it is important to keep your feet on the ground B Theoretical ideas and concepts should emerge from the data [T] C Theories should be grounded in political values and biases D Theories should be tested by rigorous scientific experiments E Theories should be tested through quantitative methods
Qualitative Research data collection methods can be used to find new ideas, opportunities and problems and explore a certain field in more detail, therefore the data collection methods are most likely to consist of	**0**	A Closed-ended and measurable questions B Double-barreled questions C Numbers, figures, and numerical values D Online surveys with multiple choice questions E Open-ended questions and descriptive answers [T]
You are working on a research project with your supervisor to learn about the culture of a specific community and answer the research question "What is it like to be a young Afghan Pashtun parent who has at least one Polio afflicted child?" your study design will be	**0**	A Case Report B Cross-Sectional study C Ethnography [T] D Grounded Theory E Phenomenology
You are conducting research to study ideas, beliefs, human behaviors and other research questions that do not involve studying the relationship between variables, you are conducting a	**0**	A Diagnostic research B Experimental research C Fundamental research D Qualitative research [T] E Quantitative research
You have outlined a detailed research protocol/proposal for your final research paper, and the section of your proposal that contains the purpose of your research with a full statement of the research question is	**1**	A Analysis B Introduction [T] C Literature Review D Methodology E References
Research is carried out through a conceptual framework called	**0**	A Research design [T] B Research hypothesis C Research objective D e. Research synopsis E Research synopsis
During TAG synthesis from Glycerol -3- phosphate and acyl-CoA, the first intermediate formed is	**1**	A 1 - acyl-glycerol B 1-acyl-glycerol-3-P [T] C 1, 2 diacyl-glycerol D 2-acyl-glycerol-3-P E Phosphatidate
Glycerol -3-P is required for TAG synthesis. It can be derived from dihydroxy acetone phosphate (an intermediate of glycolysis) by reduction catalyzed by	**1**	A Glycerol-3-P dehydrogenase [T] B Glycerol -3-P hydrogenase C Glycerol -3-P hydrolase D Glyceraldehyde 3-P reductase E Glyceraldehyde -3-P dehydrogenase
A 45 years young man presented to neurology unit with complaint of incoherent speech. On neurological examination the patient was unable to walk in a straight line. Also he could not perform rapidly alternating movements. Lesion of which part of brain is most likely responsible for his symptoms?	**1**	A Caudate nucleus B Cerebellum [T] C Hippocampus D Putamen nucleus E Thalamus