

# PERIPHERAL NERVOUS SYSTEM

**MIDTERM EXAM**  
**WAREED BATCH**

إعداد :



**1- The stapes sends its vibration to the -----?**

- a- Incus
- b- Tympanic membrane
- c- Oval window
- d- Round window
- e- Malleus

**2- The olfactory receptor cells are examples of ----- neurons?**

- a- Sensory
- b- Multipolar
- c- Association
- d- Bipolar
- e- Inhibitory

**3- The nasolacrimal groove lies between -----?**

- a- Medial nasal process and maxillary process
- b- Lateral nasal process and maxillary bone
- c- Lateral nasal process and mandibular process
- d- Lateral nasal process and maxillary process
- e- Median nasal process and maxillary process

**4- Concerning Beta-Blockers, the following one has the shortest plasma half-life?**

- a- Nadolol
- b- Acebutolol
- c- Esmolol
- d- Timolol
- e- Metoprolol

**5- Stretch of an innervated skeletal muscle evokes -----?**

- a- Contraction of its spindles
- b- Contraction of its extrafusal fibers
- c- Contraction of antagonistic muscles
- d- Relaxation of synergistic muscles
- e- Relaxation of the same muscle

**6- The parasympathetic ganglia include all the followings EXCEPT?**

- a- Ciliary ganglion
- b- Celiac ganglion
- c- Otic ganglion
- d- Sphenopalatine ganglion
- e- Submandibular ganglion

**7- One of the following is NOT TRUE regarding the phototransduction process?**

- a- The visual pigment is photobleached only in present of bright light
- b- The active rhodopsin contains all the trans retinal form of vitamin A
- c- The light should pass through the thickness of the retina to reach the photoreceptor cells
- d- Rhodopsin is GPCR with its ligand pre-bound
- e- In complete darkness, photoreceptor cells are depolarized and release inhibitory neurotransmitters

**8- The purpose of the auricle is to ----- sound waves?**

- a- Dampen
- b- Increase the intensity of
- c- Act as a collector of
- d- Vibrate in response to
- e- Impedance matching function

**9- The followings match EXCEPT?**

- a- Muscarine /// Mushroom poisoning
- b- Pilocarpine eyedrops /// First choice drug in acute glaucoma to lower intraocular pressure
- c- Nicotine /// Tertiary amine from tobacco leaves
- d- Physostigmine /// Carbamate obtained from Calabar beans
- e- Methacholine /// Very quickly destroyed by ChE

**10- The promontory of tympanic cavity is seen on -----?**

- a- The medial wall
- b- The roof
- c- The posterior wall
- d- The floor
- e- The anterior wall

**11- One of the followings is NOT TRUE regarding taste bud components?**

- a- Taste receptor cells are modified neuroepithelial cells which are innervated by nerve fibers at the basal end
- b- Taste pore is close to the apical end of the taste receptor cells
- c- Basal cells are epithelial cells which migrate from adjacent tissue and replace old supporting cells every 10 days
- d- Microvilli contains ion channels or GPCR receptors
- e- Tastants are chemical compounds which can stimulate taste receptor cells through binding to specific receptors on the surface of microvilli

**12- Each of the following statements concerning the rabies vaccine for use in humans is correct EXCEPT?**

- a- The vaccine contains inactivated rabies virus.
- b- If your patient is bitten by a wild animal, the rabies vaccine should be given.
- c- When the vaccine is used for post-exposure prophylaxis, rabies immune globulin should also be given.
- d- The virus in the vaccine is grown in nerve tissue cell cultures, thus decreasing the risk of allergic encephalomyelitis.
- e- Pre-exposure vaccination given in three doses plus a booster dose every two years.

**13- All the following are characteristics of tetanospasmin EXCEPT?**

- a- It is a heat-labile protein.
- b- It is a neurotoxin.
- c- It can be toxoided.
- d- It enhances the release of glycine and gamma-amino butyric acid.
- e- It rapidly fixed to gangliosides.

**14- The followings belong together EXCEPT which one?**

- a- Incus
- b- Tympanic cavity
- c- Middle ear
- d- Cochlear duct
- e- Eustachian tube

**15- The following are true about leprosy EXCEPT?**

- a- It is caused by acid fast bacteria.
- b- It causes facial nerve palsy.
- c- Tuberculoid leprosy occurs in patients with poor cellular immunity.
- d- More bacilli are found in the skin of patients with lepromatous leprosy than tuberculoid leprosy.
- e- granuloma is a feature of tuberculoid leprosy.

**16- The face contains the followings EXCEPT?**

- a- Sebaceous glands
- b- Deep fascia
- c- Sweat glands
- d- Loose connective tissue
- e- Muscles

**17- Which of the following is INCORRECTLY matched?**

- a- Eye color /// melanocytes in iris stroma
- b- Vestibular membrane /// hair cells of macula utriculi
- c- Basilar membrane /// segregate cochlear duct from scala tympani
- d- Semicircular ducts /// packed with endolymph
- e- Secondary tympanic membrane /// round window of middle ear

**18- Sounds are detected by ----- receptors?**

- a- Chemo
- b- Thermo
- c- Mechano
- d- Photo
- e- Nociceptor

**19- Which of the following extraocular muscles is CORRECTLY matched with its nerve supply?**

- a- Medial rectus and abducens nerve
- b- Superior rectus and oculomotor nerve
- c- Inferior rectus and trigeminal nerve
- d- Lateral rectus trochlear nerve
- e- Superior oblique and oculomotor nerve

**20- In Horner's syndrome, all correct EXCEPT?**

- a- Miosis
- b- Ptosis
- c- Enophthalmos
- d- Cold skin
- e- Anhidrosis

**21- All the followings are branches of phrenic nerve EXCEPT?**

- a- Right copula of diaphragm
- b- Right suprarenal gland
- c- Left copula of diaphragm
- d- Left suprarenal gland
- e- Central tendon of diaphragm

**22- All the following are manifestation of autonomic neuropathy EXCEPT?**

- a- Orthostatic hypotension
- b- Arrhythmia
- c- Impotence
- d- Urine incontinence
- e- Clonus

**23- Which of the following is CORRECTELY matched?**

- a- Stria vascularis /// simple columnar epithelium
- b- Tympanic membrane /// simple squamous epithelium
- c- Eustachian tube (cartilaginous part) /// simple columnar ciliated epithelium
- d- Vestibular membrane /// organ of Corti
- e- Ciliary processes /// stratified cuboidal epithelium

**24- The first structure to vibrate in response to sounds is -----?**

- a- Auricle
- b- Malleus
- c- Organ of Corti
- d- Tympanic membrane
- e- Round window

**25- Aponia results from injury to?**

- a- Pharyngeal branches of vagus nerve
- b- Recurrent laryngeal nerve
- c- Glossopharyngeal nerve
- d- Spinal accessory nerve
- e- Both recurrent laryngeal nerves

**26- All following about adrenergic drugs are true EXCEPT?**

- a- Salbutamol and dobutamine are selective beta two acting drugs
- b- Phenylephrine and ephedrine are non-catecholamines
- c- Pseudoephedrine is used as nasal mucosal decongestant
- d- Dopamine at very high doses causes vasoconstriction
- e- Amphetamines produce sedation in children

**27- External Ear: Select the FALSE statement?**

- a- The lymph drainage is to the superficial parotid and mastoid lymph nodes
- b- It has an auricle consists of a thin plate of elastic cartilage
- c- The auricle possesses both extrinsic and intrinsic muscles
- d- The external auditory meatus is lined by mucus membrane
- e- The outer third of external auditory meatus is provided with hairs

**28- The followings occur in the Accommodation Reflex EXCEPT?**

- a- Contraction of the medial recti
- b- The lens thickens
- c- Contraction of the Ciliary muscle
- d- Increase refractive power of the lens
- e- The pupils dilated

**29- Which of the followings arise from the first pharyngeal arch?**

- a- Stapedius muscles
- b- Styloid process
- c- Cricoid cartilage
- d- Malleolus
- e- Cricothyroid muscle

**30- The fibers of the optic nerve: Select the INCORRECT one?**

- a- They converge on the optic disc and exit from the eye to the temporal side of its center
- b- They leave the orbital cavity to the middle cranial fossa
- c- Are the axons of the cells in the ganglionic layer of the retina
- d- The optic nerve unites with the opposite side to form the optic chiasma
- e- The optic nerve leaves the orbital cavity through the optic canal

**31- All following nerves supply the scalp EXCEPT?**

- a- Supraorbital
- b- Auriculotemporal
- c- Zygomaticofacial
- d- Supratrochlear
- e- Temporal

**32- The actual socket for the eyeball is -----?**

- a- The bony cavity of orbit
- b- Tenon's capsule
- c- The episcleral space
- d- The sclera
- e- The orbital fat

**33- All the followings about local anesthesia (LA) are true EXCEPT?**

- a- Lidocaine is well absorbed from mucous membranes on topical application
- b- Bupivacaine is long-acting LA and half-life is (3 hrs.)
- c- Lidocaine is short-acting LA and half-life is (1.5 hrs.)
- d- Side effects: anxiety, tremors, convulsions and hypertension
- e- Bupivacaine is used for epidural and spinal anesthesia

**34- The celiac ganglion is considered as -----?**

- a- Terminal ganglion
- b- Lateral ganglion
- c- Collateral ganglion
- d- Paravertebral ganglion
- e- Parasympathetic ganglion



**35- Regarding poliovirus and poliovirus vaccines, which one of the following is MOST ACCURATE?**

- a- Poliovirus is sensitive to acidic pH.
- b- Poliovirus remains latent within sensory ganglia, and reactivation occurs primarily in immunocompromised patients.
- c- Reversion of serotype 3 to virulence could occur with the oral Sabin vaccine that can cause paralytic polio.
- d- Serotype 3 of poliovirus is the most virulent type.
- e- Being given orally considered an advantage for the killed Salk vaccine.

**36- Each of the following statements concerning arboviruses is correct EXCEPT?**

- a- The pathogenesis of dengue hemorrhagic shock syndrome is associated with anamnestic response.
- b- Birds are the reservoir host for West Nile fever viruses but not for yellow fever virus.
- c- Human is a dead-end host when the virus present in sufficiently high titer in the blood.
- d- There is a live, attenuated vaccine that effectively prevents yellow fever.
- e- Zika virus could be transmitted sexually.

**37- A 69 year old female referred to the specialty memory clinic from neurology with a 2-year history memory loss, and executive function loss. Word finding and reading/writing skills were noted to have deteriorated in the preceding 6 months according to her husband. She also stopped driving her car about 6 months. Magnetic resonance imaging scan revealed mild generalized cortical atrophy. Which of the following mechanisms is most likely responsible for her disease?**

- a- Aggregation of Huntington
- b- Aggregation of Amyloid beta (AB) peptide
- c- Autoimmune response against components of the myelin sheath
- d- Loss of upper motor neurons in the cerebral cortex
- e- Dopaminergic neurons degeneration

**38- The alarm response is associated with all the following EXCEPT?**

- a- Acceleration of the heart
- b- Better ventilation
- c- Increase alertness and mental activity
- d- Increase food digestion and absorption
- e- Increase blood glucose

**39- Which of the following could be detected on the back of dorsum of the tongue?**

- a- Sweet
- b- Sour
- c- Bitter
- d- Salty
- e- Umami

**40- The nasociliary nerve supplies the followings EXCEPT?**

- a- Nasal cavity
- b- Ethmoid sinus
- c- Cornea
- d- Lower eyelid
- e- Tip of the nose

**41- One of the following isn't function of the facial nerve?**

- a- Secretomotor to parotid gland
- b- Somatic sensation to the skin of the concha of the auricle
- c- Secretomotor to lacrimal gland
- d- Taste sensation from the anterior two thirds of the tongue and soft palate
- e- Supplies the posterior bellies of the digastric

**42- All the followings are branches of cervical plexus EXCEPT?**

- a- Lesser occipital
- b- Supraclavicular
- c- Nerve to levator scapula
- d- Greater occipital
- e- Great auricular nerve

**43- Which one of the following is FALSE?**

- a- In myasthenia gravis, pyridostigmine acts quicker at NMJ than neostigmine
- b- Edrophonium can differentiate myasthenic crisis from cholinergic crisis
- c- Carbachol eyedrops produce miosis and can be used in glaucoma
- d- Block by persistent depolarization does not occur at muscarinic neuroeffector junction
- e- Sarin is an alkyl phosphate nerve gas that directly interacts to irreversibly inhibit ChE.

**44- The followings are irreversible ChE. inhibitors EXCEPT?**

- a- Paraoxon
- b- Sarin
- c- Carbaryl
- d- Disofluorophate DFP
- e- Malaaxon

**45- Which of the following is WRONG regarding the trigeminal nerve?**

- a- It leaves the anterior aspect of the pons
- b- Has small motor root and a large sensory root
- c- The trigeminal ganglion is motor
- d- Pass in the posterior and middle cranial fossae
- e- Is the largest cranial nerve

**46- ----- specialized receptors that are sensitive to stretch and are located within the skeletal muscle?**

- a- Meissner's corpuscles
- b- Tendon spindle
- c- Muscle spindle
- d- Free nerve endings
- e- Pacinian corpuscles

**47- The depolarization of olfactory receptor cell is further amplified by -----?**

- a- Outflux Of Cl<sup>-</sup> ions
- b- Outflux Of K<sup>+</sup> ions
- c- Outflux Of Ca<sup>++</sup> ions
- d- Influx of Cl<sup>-</sup> ions
- e- Influx of K<sup>+</sup> ions

**48- "The white of the eye" is -----?**

- a- The cornea
- b- The choroid
- c- The iris
- d- The anterior part of the sclera
- e- The ciliary body

**49- All the of the followings are therapeutic uses of ALPHA- BLOCKERS EXCEPT?**

- a- Prophylaxis of migraine.
- b- Essential hypertension.
- c- Benign prostatic hyperplasia.
- d- Pheochromocytoma.
- e- Raynaud disease.

**50- Regarding local anesthesia, which is WRONG?**

- a- Epidural anesthesia is used in thoracic, lumbar, sacral regions
- b- Epidural anesthesia is used in pain management during normal delivery
- c- Spinal anesthesia, drug is injected between L3 and L4 space or L4 and L5 space
- d- Spinal anesthesia, spinal block is a single injection
- e- Epidural anesthesia is used in caesarean section (CS)

**51- The region in the retina which lacks photoreceptor cells is called -----?**

- a- Black spot
- b- Blind spot
- c- Fovea
- d- Choroid
- e- Macula

**52- The three divisions of the trigeminal nerve supply the followings EXCEPT?**

- a- The mouth
- b- The upper eyelid
- c- The angle of the mandible
- d- Paranasal air sinuses
- e- The lateral side of the orbital opening

**53- Listeria monocytogenes shows which of the following characteristics?**

- a- It can grow at refrigerator temperatures (4°C).
- b- It is an extracellular pathogen.
- c- It is catalase-negative.
- d- It is a gram-negative coccus.
- e- It is the cause of a neonatal sepsis: Early (first 2 days) or late sepsis (5days).

**54- The gustatory cortex is located within the ----- lobe?**

- a- Temporal
- b- Parietal
- c- Occipital
- d- Frontal
- e- Limbic

**55- All the following manifestation of atropine poisoning are true EXCEPT?**

- a- Convulsions
- b- Hypothermia
- c- Hallucination
- d- Delirium
- e- Tachycardia

**56- Regarding prions and prion-caused diseases, which one of the following is MOST ACCURATE?**

- a- Prions are very sensitive to ultraviolet light, which is why UV light is used in hospital operating rooms to prevent their transmission.
- b- Prions are protein-containing particles surrounded by a lipoprotein envelope with a DNA polymerase in the envelope.
- c- The diagnosis of Creutzfeldt-Jakob disease is typically made by observing cytopathic effect in cell culture.
- d- Iatrogenic Creutzfeldt-Jakob disease occurs due to eating contaminated cattle products by prion protein.
- e- Prion proteins are characterized by having changes in conformation from the alpha-helical form to the beta-pleated sheet form.

**57- A 26 years old female was admitted to hospital having sustained a deep laceration to the forearm following a road traffic accident. On examination there is loss of sensation over the lateral palm, including the thumb and first two fingers of her hand. Which of the following pathologic changes will most likely result distally in the forearm structure that was injured to produce this finding on examination?**

- a- Fibrinoid necrosis.
- b- Coagulative necrosis.
- c- Wallerian degeneration.
- d- Segmental demyelination.
- e- Chronic inflammation.

**58- Clostridium botulinum associated foodborne illness can occur within 18-24 hours of ingestion of a toxin produced by the bacteria in food. Which of the following is NOT the symptom associated with C. botulinum toxin?**

- a- Poor vision
- b- Fever
- c- Difficulty swallowing
- d- Bulbar paralysis
- e- Urinary retention

**59- The following process is brought about by activation of the parasympathetic nerve fibers?**

- a- Micturition
- b- Sweating
- c- Ejaculation of semen
- d- Exophthalmos
- e- Increased blood pressure

**60- One of the following is CORRECT about Thiamine (Vitamin B1) deficiency?**

- a- Thiamine deficiency result from gastric disorders such as carcinomas or chronic gastritis
- b- Untreated Korsakoff syndrome leads to the irreversible Wernicke encephalopathy.
- c- Wernicke encephalopathy is associated with memory impairment.
- d- Korsakoff syndrome is the acute phase of the encephalopathy
- e- Korsakoff syndrome is reversible when treated with thiamine

**61- All of the followings pharmacodynamics of anti-muscarinic drugs are true EXCEPT?**

- a- Causes initially central stimulant effects.
- b- Decrease Lacrimation in the eye.
- c- Reduce bronchial secretion.
- d- Decrease heart rate as the result of effects on CVS.
- e- Prolonged intestinal transit time.

**62- Unilateral cleft palate is due to -----?**

- a- Failure of fusion of the two palatine processes of the maxilla with each other in the midline and with the primary palate on both side
- b- Failure of fusion of the two palatine processes of the maxilla with each other in the midline and with the primary palate on left side
- c- Failure of fusion of the two mandibular processes of the maxilla with each other in the midline and with the primary palate on one side
- d- Failure of fusion of the two palatine processes of the maxilla with each other in the midline
- e- Failure of fusion of the two palatine processes of the maxilla with each other in the lateral and with the primary palate on one side

**63- Auditory pathway includes all the followings EXCEPT?**

- a- Superior olive
- b- Cochlear nucleus
- c- Primary auditory cortex
- d- Medial geniculate body
- e- Superior colliculus

**64- Stimulation of M2 receptors of Ach. results in the following EXCEPT?**

- a- Decrease in cAMP in cardiac muscle
- b- Decrease in force of contraction of heart and stroke volume
- c- Decrease in release of acetylcholine from cholinergic nerve endings in intestine
- d- Bradycardia
- e- Vasodilation

**65- The palatine tonsil is developed from -----?**

- a- The first pharyngeal arch
- b- The 2nd pharyngeal pouch
- c- The 2nd pharyngeal arch
- d- The 2nd pharyngeal cleft
- e- The 3rd pharyngeal pouch

**66- All the followings regarding macula sacculle are wrong EXCEPT?**

- a- Contains two types of cells inner and outer hair cells
- b- The hair cells have several kinocilia of graded height
- c- Covered with gelatinous membrane devoid of otoconia
- d- Specialized sensory organs found in the membranous labyrinth of the vestibule
- e- It is the auditory organ of the inner ear

**67- Medial squint is the result of injury of which nerve -----?**

- a- Oculomotor
- b- Trochlear
- c- Nasociliary
- d- Abducent
- e- Ophthalmic

**68- Which of the following is the best position to examine the function of inferior oblique muscle?**

- a- Elevation in abducted position
- b- Depression in abducted position
- c- Depression in adducted position
- d- Elevation in adducted position
- e- Depression in vertical position

**69- Anticipation typically occurs with disorders that are caused by a trinucleotide repeat expansion. The number of repeats can change as the gene is passed from parent, which leads to more severe and early-onset signs and symptoms. Which of the following diseases is associated with this Phenomenon?**

- a- Alzheimer Disease
- b- Parkinson Disease
- c- Wernicke encephalopathy
- d- Huntington Disease
- e- Amyotrophic Lateral Sclerosis

**70- The purpose of the middle ear ossicles is to ----- the incoming vibrations?**

- a- Lessen the intensity of
- b- Increase the amplitude of
- c- Change the wavelength of
- d- Move with
- e- Inhibit



**71- All the following are variants of Guillain-Barre Syndrome EXCEPT?**

- a- Acute inflammatory demyelinating neuropath
- b- Acute motor and sensory axonal neuropathy
- c- Miller Fisher Syndrome
- d- Multifocal motor neuropathy
- e- Panautonomic neuropathy

**72- Glossopharyngeal Nerve CN IX has the following functions EXCEPT?**

- a- Visceral (Parasympathetic) Motor
- b- Proprioceptive fibers
- c- Somatic (General) Sensory
- d- Somatic (Branchial) Motor
- e- Special Sensory (Taste)

**73- All the followings are layers of scalp EXCEPT?**

- a- Skin
- b- Tough areolar tissue
- c- Connective tissue
- d- Pericranium
- e- Galea aponeurotica

**74- Nuclei of the facial nerve include the followings EXCEPT?**

- a- The superior salivatory nucleus
- b- The lacrimal nucleus
- c- Main Motor Nucleus
- d- The nucleus of the tractus solitarius
- e- Edinger-Westphal nucleus

**75- Within 12 hours of an irreversible hypoxic-ischemic insult, this cell body shrinks, the nucleus is pyknotic, the nucleolus disappears, the cytoplasm shows intense eosinophilia and Nissl substance is lost. What is this cell type most likely to be?**

- a- Astrocyte
- b- Endothelial cell
- c- Neuron
- d- Microglia
- e- Oligodendroglia

**76- Adrenaline, which of following is FALSE?**

- a- Causes vasodilatation of blood vessels in skin
- b- Has inotropic and chronotropic effects
- c- Can be given topically in chronic open angle glaucoma
- d- Is used in cardiac arrest and anaphylactic shock
- e- Side effects include headache, tremor, anxiety

**77- The first branch of ophthalmic artery is?**

- a- Supraorbital artery
- b- Posterior ethmoidal artery
- c- Central artery of the retina
- d- Supratrochlear artery
- e- Ciliary arteries

**78- Among the followings, which can least likely undergo adaptation?**

- a- Thermoreceptors
- b- Mechanoreceptors
- c- Photoreceptors
- d- Pain receptors
- e- Taste receptor

79- One of the following pair between the diseases or injuries and their neuropathies anatomic patterns is INCORRECTLY matched?

- a- Blunt trauma affecting radial nerve injury /// Simple mononeuropathy
- b- Carpal tunnel syndrome /// Simple mononeuropathy
- c- Vasculitis /// Mononeuritis multiplex
- d- Diabetic Peripheral Neuropathy /// Polyneuropathies
- e- Guillain-Barre Syndrome /// Mononeuritis multiplex

80- Which one of the following statements is CORRECT?

- a- Otoliths are normally located in the ampulla of semicircular canals
- b- Meibomian gland is known to secrete tears
- c- Muller's cells share in the formation of the limiting membranes
- d- Bruch's membrane lies between the pigmented and the non-pigmented epithelial layers
- e- The lens epithelium completely surrounds the lens

إنتهى

بالتوفيق للجميع

