

- General sensory nerves are:

- a) Bipolar
- b) Pseudounipolar
- c) Multipolar
- d) Unipolar
- e) Can be b or d

Answer: B

- One of the following is responsible for the reflexes:

- a) Cortex
- b) Spinal cord
- c) Cerebrum
- d) Lower brain
- e) All of the above

Answer: C

- The autonomic nervous system is responsible for all of the following EXCEPT:

- a) GI system
- b) Skeletal muscles
- c) Smooth muscles
- d) Urinary bladder
- e) A&C

Answer: B

- Which of the following receptors are stimulated by dead cells:

- a) Mechanoreceptors
- b) Electromagnetic receptors
- c) Pain receptors (nociceptors)
- d) Thermoreceptors
- e) chemoreceptors

Answer: C

. Which of the following was CORRECTLY matched:

- a) Temporal summation/ increasing the frequency of nerve impulses
- b) Spatial summation /comes from one neuron
- c) Tonic receptors/ fast adaptation
- d) Phasic receptors/slow adaptation

e) None of them

Answer: A

. One of the following is an example of a rapidly adapting receptors:

a) Baroreceptors of the arterial tree

b) Pressure receptors

c) Pain receptors

d) Chemoreceptors

e) B & C

Answer: B

. One of the following is NOT an example of the general sensations:

a) Vision

b) Thermal sensations

c) Pain

d) Pressure

e) Touch

Answer: A

. One of the following is TRUE about synapses:

a) Electrical synapses are slower than chemical ones

b) Chemical synapses have many gap junctions

c) Electrical synapse requires neurotransmitters

d) Electrical synapses are faster than chemical ones

e) None of them

Answer: D

One of the following is TRUE:

a) Electrical synapses are the most abundant in our bodies

b) Chemical synapses are unidirectional

c) There is no delay in a chemical synapse

D) Neurotransmitters act on receptor proteins in the membrane of the presynaptic neuron to excite the neuron, inhibit or modify its sensitivity

e) B & D

Answer: B

. Which of the following is considered as inhibition for the postsynaptic potential:

- a) Open Ca^{+2} channels at the presynaptic membrane
- b) Close Cl^- channels at the postsynaptic membrane
- c) Close Ca^{+2} channels at the presynaptic membrane
- d) Open K^+ channels on the postsynaptic membrane
- e) C & D

Answer: E

. One of the following does NOT describe metabolic receptors :

- a) Fast
- b) Prolonged
- c) Amplified
- d) Slow
- e) All of the above

Answer: A

. One of the following is an excitatory neurotransmitter:

- a) Acetylcholine
- b) Dopamine
- c) Glycine
- d) GABA
- e) NO

Answer: A

. Which type of neurotransmitters can't be stored:

- a) Acetylcholine
- b) Glycine
- c) NO
- d) Serotonin
- e) GABA

Answer: C

. The type of signaling when the cell that secretes the signal is also the target is called:

- a) Autocrine
- b) Endocrine
- c) Synaptic
- d) Paracrine
- e) Contact-dependent

Answer: A

. A patient comes to you with seizures you expect that he has:

- a) Hypoxia
- b) Acidosis
- c) Alkalosis
- d) A huge number of neurotransmitters in the cleft
- e) Fatigue in synapse

Answer: C

. One of the following is NOT expected during fatigue of synapses

- a) Increase the number of receptors
- b) Neurotransmitters decrease
- c) Response is slower
- d) Abnormal concentrations of ions in the postsynaptic neuron could be a factor
- e) None of them

Answer: A

. Decremental conduction occurs at:

- a) Axon hillock
- b) Cell body
- c) Dendrites
- d) B+C
- e) All of them

Answer: C

. The origin of graded potential is:

- a) Integration zone
- b) Conduction zone
- c) Dendrites & cell body
- d) Along axon
- e) Both A & B

Answer: C

. Action potential occurs in axon hillock because:

- A) It's a connection between the cell body and axon

- B) It has no Ca^{2+} channels
- C) It has many Na^{+} channels
- D) Its permeability for anions (negative charges ions) is high
- E) It has no K^{+} channels

Answer: C

. The neurotransmitter that acts as negative feedback is:

- a) Serotonin
- b) Dopamine
- c) GABA
- d) Glycine
- e) None of them

Answer: C

. The type of sensory neuron in stretch reflex is:

- a) Unipolar
- b) Pseudounipolar
- c) Bipolar
- d) Multipolar
- e) None of them

Answer: A

. One of the following is TRUE:

- A) In Convergence, the input signal spreads to an increasing number of neurons
- B) Divergence can act only on the same track
- C) Divergence means that multiple inputs are gathered together in a single neuron
- D) In convergence, the excitation will be on a single neuron
- e) Both C & D

Answer: D

. Which of the following is true about afterdischarge:

- a) Parallel afterdischarge is longer than reverberating afterdischarge
- b) Reverberating afterdischarge can't be facilitated
- c) They can get fatigued
- d) They are highly regenerated
- e) All of them

Answer: C

. Local anesthetic drugs like curare take effect by which of the following mechanisms:

- a) Blocking nicotinic acetylcholine receptors at the synapse
- B) Inhibiting the action of acetylcholinesterase in the synapse
- C) Internal block of axonal voltagegated sodium channels
- D) Blocking neurotransmitter uptake by axonal terminals
- E) Inhibiting the propagation of the action potential through autonomic neurons

Answer: A

. Which of the following types of neuronal circuits is self-stimulating once activated:

- a) Diverging
- b) Converging
- c) One that incorporates lateral inhibition
- d) Reverberating
- e) Negative feedback circuit (corticothalamic)

Answer: D

. By atropine intoxication, all the followings are taking place EXCEPT:

- a) Tachycardia
- b) Dryness (less sweating)
- c) Urinary retention
- d) Myosis (constriction of the pupil)
- e) Blurred vision

Answer: D

. Intensity discrimination is better in that:

- a) The unmyelinated neurons activated.
- b) Shape of receptor
- c) Decreased number of receptors activated.
- d) Greater amplitude of action potential
- e) Higher frequency of action potential

Answer: E

. Localization of sensation is made by :

- a) Shape of receptor
- b) Greater amplitude of action potential
- C) The sensory pathway ending at specific area in the brain.
- d) Type of receptor
- E) Number of sensory neurons activated.

Answer: C

. All of these receptors are skin receptors EXCEPT :

- a) Ruffini endings
- b) Golgi tendon
- c) Naked free nerve endings
- d) Pacinian corpuscle
- e) Merkel's discs

Answer: B

. The most important effect of lateral inhibition is to:

- a) Allow for stimulus intensity to be encoded in the firing frequency of a neuron.
- B) Enable two points of skin contact to be felt separately rather than as one.
- C) Sharpen perception of the precise location of a stimulus.
- D) Increase the signal time of perception.
- E) Enable the brain to distinguish between one sensory modality and another.

Answer: C

Receptors that respond when a stimulus is first applied, but continues to apprise the brain about the sensation is called?

- a. Phasic receptors
- b. Nociceptors
- c. Exteroceptors
- d. Tonic receptors
- e. None of the above

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In sensory receptors:

- a. Stimulus energy is converted into local depolarization.
- b. Serving touch sensation, constant suprathreshold stimulation causes an action potential to be generated at a constant rate.
- c. The frequency of action potential generated doubles when the strength of the stimulus doubles
- d. A generator (receptor) potential can be produced by only one form of energy.
- e. The generator (receptor) is graded, self-propagating.

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Receptor (Generator) potential :

- a. Generated in the node of Ranvier only.
- b. Local response
- c. Propagated

- d. Occur in myelinated nerve.
- e. Obey all or none law.

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- d. Reverberating
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