**Question Bank for *Caffeine and Neural Fatigue***

1. What does the molecule adenosine do in the body?

1. It creates a sense of tiredness
2. It creates a feeling of energy
3. It creates a feeling of happiness
4. It creates a feeling of sadness

2. When adenosine binds to the adenosine receptor it…

1. Inhibits the ability of ions to bind to it
2. Inhibits the ability of neurotransmitters to bind to it
3. It activates the receptor
4. It inhibits the receptor

3. When ions bind to the ion receptor…

1. The ion receptor shuts down
2. The ion receptor goes to the cell membrane
3. The ion receptor causes the increase of cytoplasmic calcium
4. The ion receptor causes the decrease of cytoplasmic calcium

4. What do neuromodulators do?

1. They always control the amount of calcium in the cytoplasm
2. They make the neuron longer or shorter
3. They modulate the number of neurons in the brain
4. They control the amount of neurotransmitters released

5. When an ion receptor is activated…

1. A lot of neurotransmitter is released
2. Very little neurotransmitter is released
3. No neurotransmitter is released
4. The neuron does not signal

6. The Green Receptor causes cells that are normally yellow to turn green when it is turned on. If molecule X is an inhibitor of the Green Receptor, and you add molecule X to cells with the Green Receptor, what color will the cells be?

1. Green
2. Yellow
3. White
4. Red

7. The Green Receptor causes cells that are normally yellow to turn green when it is turned on. If molecule Y is an activator of the Green Receptor, and you add molecule Y to cells with the Green Receptor, what color will the cells be?

1. Green
2. Yellow
3. White
4. Red

8. The Green Receptor causes cells that are normally yellow to turn green when it is turned on. If molecule Y is an inhibitor of the Green Receptor, and you add molecule Y to cells with the Green Receptor, then add an activator of the Green Receptor, what color will the cells be?

1. Green
2. Yellow
3. White
4. Red

9. What does it mean if a group of receptors is “saturated?”

1. The receptors are very brightly colored
2. The receptor s don’t have anything in them
3. The receptors are fully filled
4. The receptors are genetically modified

10. What does Ryanodine do to ion receptors in neurons?

1. It acts as an inhibitor
2. It acts as an activator
3. It doesn’t do anything
4. It makes them disintegrate