



مدرسة جي ه اس اس الخاصة JSS PRIVATE SCHOOL, DUBAI

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Preap. Control and Co-ordination Date: 30/3/20

2.

1. (a) - Dendrite: It receives the stimuli signal in the form of a chemical impulse
- (b) - Cell body: Converts the ~~electrical~~ chemical impulse into a ~~electrical~~ electrical impulse.
- (c) - Axon terminal: Receives the signal from the axon, then it converts ~~it~~ back into a chemical impulse and move to the synapse
- (d) - Synapse: The junction between two neurons.

2.

Movements of a sensitive plant depends on where the plant ~~is touched or~~ is touched and the type of stimuli. whereas, the shoot moves only in a single direction that is towards the ~~light~~ light. This ^{is} the major difference between the movement of the leaves of a sensitive plant and that of a shoot, which grows towards or in the direction of the light.

3.

Adrenaline is a hormone that is secreted ^{into the blood,} when we are in an emergency ~~type~~ situation. The autonomic nervous system comes into place here. It has two subdivisions - Sympathetic and parasympathetic nerves. The sympathetic nerves act in such a emergency or stressful situation, when adrenaline is released, the sympathetic nerves recognise it and acts accordingly. The parasympathetic nerves relaxes the body back into ~~its~~ its state of rest after the situation has been addressed. It also increases the intestinal gland activity and

relaxes the sphincters in gastrointestinal tract. Our ~~the~~ body produces a proper response to the stimuli.

4. Involuntary actions are actions which are not ~~is~~ under our control, such as the beating of our heart, we cannot control this. Therefore, the cardiac muscle is involuntary. Involuntary actions are controlled by the autonomic nervous system (ANS). The blinking of eyes can also, to some extent, be considered an involuntary action. On the other hand, reflex actions are ~~quick~~ ^{quick} ~~actions that are results of~~ a quick and immediate actions. For example, when we touch a hot pan, we immediately remove or lift up our hand, without ~~thinki~~ thinking twice. The signal move from the sensory nerve to the relay nerve to the motor nerve and finally the effector. This is the major difference between an involuntary action and a reflex action.
