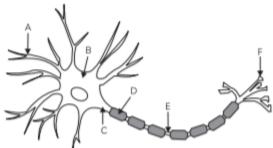
Neural Control and Coordination

Case Study Based Questions

1. Read the following passage and answer the questions that follow:

Dendrites are the short fibre which is extended out of the cell body. Cell body contains Nissl's granules. It also contains cytoplasm and a large nucleus. The axon conducts nerve impulses away from the cell body to a synapse or a neuromuscular junction. Axons are of two types, myelinated and non myelinated.



- (A) Why axon hillock is the most sensitive part of the neuron?
- (B) Why are centrioles absent in mature neurons?
- (C) Identify A, B, C, D, E and F

Ans. (A) Due to the presence of sodium channels, axon hillock is known as the most sensitive part of the neuron.

- (B) Centrioles are absent in mature neurons which prevents them from dividing mitotically. Because they are difficult to replace.
- (C) A represents dendrites; B represents cell body; C represents axon hillock; D represents axon; E represents node of Ranvier and F represents synaptic knob.