

2 Marks

Point out the general functions of a nucleoli

Apply the concept of osmosis and explain how passive transport occurs in cell

Justify “Nervous tissues are irritable”

Give the specific protective function of cilia in the trachea

Dead space volume accounts for about 150 ml of tidal volume. Analyze how much of a tidal breath actually reaches the alveoli?

State the term Action Potential.

Identify which process is more selective—pinocytosis or receptor-mediated endocytosis.

Find out the criteria that could distinguish epithelial tissues from other tissues.

List the two chemical factors that modify respiratory rate and depth.

Name the organs forming the respiratory passageway from the nasal cavity to the alveoli of the lungs.

16 Marks

Illustrate the origin of action potential with neat diagram.

Explain in detail about the cell membrane – its compositions and functions with neat diagram.

What happens, in terms of volume and pressure changes in the lungs, when diaphragm and the external intercostal muscles contract and Relax?

Explain in detail about the different parts of the respiratory system.

Identify the process involved in transportation of substances across cells against concentration gradient with energy support in detail.

Choose the tissue that binds other tissues together. Also summarize their functions, characteristics and body locations.

Identify the organelles on a cell model, and indicate the major function of each.

Compare and contrast the different process involved in transportation of substances across cells

Explain how the respiratory muscles cause volume changes that lead to air flow into and out of the lungs (breathing).

Elucidate the mechanism of External and Internal respiration with suitable diagram.

Analyze the Permeability changes and Ion Influxes during an action potential with neat sketch of generation of action potential curve.

Specify the tissue that have their hallmarks as irritable and contractile. Also explain where these tissues are found and state their functions.