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**MLT(B)**

**Pathology**

**Q1. Define the following terms with two**

**Physiological and pathological example**

**Each?**

**Ans. Atrophy.**

It is the physiological process. In this process

The reabsorption and breakdown of tissues

Was accrue involving apoptosis. Muscle

Atrophy is atrophy in which muscle waste

away. It is caused by a lack of physical activity.

This disease makes injury it impossible or

Difficult for you to move an arm or leg.

*Example.*

Charcot Marie tooth disease, poliomyelitis,

Shrinking of thymus in childhood.

**Hypertrophy.**

In hypertrophy increasing the volume of an

Organ due the enlargement of it components

Or calls . It is most common type of muscle

Hypertrophy occurring due to physical

Exercise . Such as weightlifting.

*Example.*

The size of the heart increase due to aortic

Stenosis. Muscle hypertrophy increased seen

In various professional sports, Olympic e t c.

**Hyperplasia.**

It is the increased in reproduction rate

Of cells due to which enlargement of

An organ or tissue. It is not cancer but

May become to cancer . It is caused by

Too much estrogen or not progesterone.

*Example.*

Growth of adrenal gland due to adrenocorticotropic

Harmon production. At the time of pregnancy

Increasing the size of breasts.

**Metaplasia.**

The differentiated cell type from one to

Another differentiated cell type this process

Of transformation are called metaplasia.

It is the change of cell type from one to

Another or part of normal maturation

Process. It is a reversible replacement

Between differentiated cell type with

One another

*Example.*

The pathological irritation cigarette smoke

In which the mucus secreting ciliated

Are infected and ching it from. It is our

Esophagus which it is lined with nonkeratinizing

Squamous.

**Q2. How does the calcium ions influx affect the**

**Cell? Write it is your own words.**

**Ans.** Ca2+ influx into human erythrocytes occur

By a facilitated process. Which inhabited in cinchona

Alkaloids and the phenothiazine’s. Calcium affects

Many membrane functions including, Lipied

Composition, some cytoskeletal interaction and

Cation permeability interactions which may determine

Cell shape. They play an important role in signaling.

It is stored in cell in a structure called as reticulum.

**Q3. What is free radical? What is the effect of reactive**

**Oxygen specie (ROS) on the cell?**

**Ans. *Free radical.***

Free radical are damage the cells in your body and

They are unstable molecules. They gain or loss of

Electrons when they form atom or molecules. They

Occur as a result of metabolic processes.

***Reactive oxygen specie (ROS)***

They are chemically reactive chemical species. They

Containing oxygen. They play an important role in

Cell that they taken a metabolism of oxygen also in

Signaling and homeostasis. ROS play both good and

Bad role.

**Q4.** **Write down a some different between Apoptosis**

**And Necrosis?**

**Ans. Apoptosis.**

Also called programmed cell death. That is generally

Triggered Normal, healthy process of cell death in body.

It is Programmed and target cause of cellular death.

**Necrosis.**

It is the cell death of premature cell and living tissue.

Caused by external factors to the cell or tissue. Such

As toxins, infection or trauma. In this form cell was

Injury and as results in the premature death of the

Cells in living by autolysis.

**Q5. Write a note on air embolism?**

**Ans. Air embolism.**

It is also called gas embolism. The blockage of blood

Vessel due to one or more bubbles of air or another

Gases inter in the circulatory system. It is also occur

In the xylem part of the plants especially when suffering

From a water stress. When gas embolism reaches to

Brain or cerebral part it’s can cause a stroke. Air embolism

Is rare cause of death. For our circulation all air is

Foreign and majority can easily removed from

Intrarenous line before that when they was entering

To the patient’s circulation.

***The end***