NAME USAMA SATAR ,ID 16781 SEC B MLT ANS NO 1

FREE REDICAL

Free redical are unstable molecule thet can demage the cell In your body .

They form when atoms or molecules gain or lose electron

For example when your body usese oxygen it creates free redical as by product and the demage caused by those free redical is called oxidative stress

EFFECT OF RELECTIVE OXYGEN

IN the addition to energy reactive oxygen species (ROS)WITH potential cause celluar damage are produced ros can demage lipid DNA RNA and proteins which in theory contributes to the physiology of againg contributies to the physiology of aging ROS are produced as aormal product of the cellular metabolisum……

**Ans no 2**

Calcium ions( ca2+) contribute to the physiology and biochemistry of organisum cells they play an inprotant role in signal transduction pathways where they act as a second messenger in neurotransmitter release from neurons in contraction of all muscle cell types and I fertilization

Oxidative stress ca (2+) influx cytoplasm from the extracellelur environmenet and from the indoplasmic reteclum or sarcoplasmic retecilum ………………………….

ANS NO 3

DIFFERENCE DETWEEN apopotosis and necrosis...

APOPOTOSIS

Programmed cell death is a form of cell death that is generally triggered by normal healthy process death in the body NECROSIS is the premature death of cells and living tissues .caused by fectors external to the cell or tissue such as infection to toxin or trauma

ANS NO 4

AIR EMBOLISM

AN air embolism as also known as a gas embolism is ablood vessels blockage caused by one or more bubbles of air or other gas in the circulatory system air embolism may also occur in the xylem of vascular plant especially when suffering from water stress ..drivers can suffer from artrial gas embolism is a concequance of lungs over expansion injury .breathing gas indruduced into the venous system of the lungs due to pulmonary barotruma will not be traped alveolar capilliries ……….

Causes…..

 SURGERY

 Small amount of air often get into the blood circulation accidentally during sergury and other medical procedure (for example of bubble entering an intervenous fluid line)

ANS 5

 **ATROPHY**

Body tissue an orga waste away especially as a result of the degenaratio of cells or become vestigial during evolution

**EXAMPLE** ..**atrophying** nerve diseases include charocot marie tooth diseses poliomyelilites amyotrophic,,EXT

HYPERTROPHY

THE ENLARGEMENT of an organ or tissue from the increase in the size of its cells

# EXAMPLE

Physiologic hypertrophy as in skeletal muscle with sustained wight bearing exercise

 Hyperplasia

The enlargement of an organ or tissue couse by increase an the reproduction rate of its cells often as in initial stage in the develotmet of cancer

## Example

Increase in the size of the breast durig pregnancy increase in thickness of indomederum during menterual cycles in laver groth after partial resction

METAPLASIA

ABNORMAL change in the nature of tissue is called mataplasia

## EXAMPLE

TISSUE NORMAL METAPLASIA

 AIRWAYS PSEUDOSTRATIFIED COLUMAR EPITHELUM SQUAMOUS EPITHELUM

**Ans no 2**