Phsyiology assignment.

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Bs HND.

Question no 1

.Difference between negative and positive feed back mechanism?

.Negative feed back	.Positive feed back
DEFINITION	
A feed back mechanism results a response to change in controlled Condition.	A feed back mechanism results a response to amplify change in controlled condition.
1.CHANGE	
It resist a Change, make adjustment to bring back the system to its Original state.	It support the change as a result enhanced the change in its Direction.
2.STABILITY	
More closely related with stability.	Leads towards instability.
3.EXAMPLES	
REGULATION OF BODY TEMP: by help of receptors transmit signal to Integrated system CNS which gives	**CHILD BIRTH:** uterine contraction causes pressure on the wall of uterus stimulated oxytocin more

Inputs to effectors, regulated by Negative feedback.	and more cause child birth regulted by positive feedback.
BLOOD PRESSURE:	**BLOOD CLOTING:**
Body blood pressure is regulated by Negative feedback.	A tear in capillary wall causes release of platelets to encourage the constriction of wound.

.Differentiate between smooth and rough endoplasmic reticulum?

Smooth E.R	Rough E.R
1.RIBOSOMES	
Doesn't have ribosomes.	Have ribosomes associated with.
2.lOCATION	
Found near cell membrane.	Found continues with the nuclear Membrane.
3.STRUCTURE	
It tends to be tubular.	It tends to be cisternae.
4.SYNTHESIZED	
SER associated with synthesis and Secretion of lipids and steroids.	RER is associated with synthesis and transport of proteins.
5. PRESENT	
Mainly in lipid forming cell e.g adipose cell, glycogen storing cell Of the liver.	Mainly in protein forming cell e.g globlet cells, pancreatic cells.

.Differentiate between lysosomes and peroxisomes?

LYSOSOMES	PEROXISOMES
1.ENZYMES	
contain degrative enzymes.	Contain oxidative enzymes.
2.DERIVED FROM	
Derived from either Golgi apparatus Or endoplasmic reticulum.	Derived from endoplasmic reticulu--m and capable of replicating.
3.INVOLVED IN.	
Endocytosis,phagocytosis.	Photorespiration,biosynthesis of lipid
4.ENERGY	
Degradative reactions do not generates energy.	oxidative reaction generates energy.
5.FUNCTION	
Responsible for digestion in the cell, Engulf the foreign bodies.	Responsible for protection of cell Against metabolic H_2O_2.

.Differentiate between pepsin and pepsinogen?

PEPSIN	PEPSINOGEN.
1.PRESENT	
Pepsin in active protease form.	In proenzyme of pepsin form.
2.ENZYME	
The digestive enzyme in stomach Which break down proteins into Polypeptides, peptones .	The substance which is secreted by stomach wall and converted into enzyme pepsin by gastric acid.

3.FUNCTION	
Digest proteins into shorter Chain of amino acid.	**Become activated into pepsin by the HCl present in gastric juices.**

.Differentiate between peptic ulcer and duodenal ulcer?

PEPTIC ULCER	**DUODENAL ULCER.**
1.OCCUR	
In the linning of stomach or Esophagus.	**In the linning of duodenum or small Small intestine.**
2.CAUSE	
Hypersecretion of gastric acid.	**Increased production of acid 70% by H.pylori.**
3.SYMPTOMS	
Starts pain 30min to 1hr after meal	**starts pain 2-3 hrs after meal.**
Vomiting occurs.	**Melena occurs .**

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Question no 2.

What is portal triad? Give its clinical significance of portal triad?

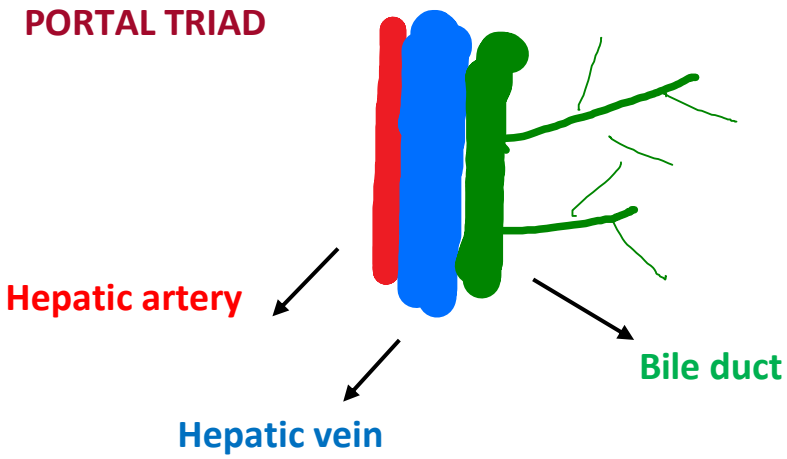
A.PORTAL TRIAD:

- **Component of hepatic lobule found running along each of lobule's corner**
- **Consist of :**

1.Hepatic artery: carry oxygenated blood.

2.Hepatic vein: takes away deoxygenated blood.

3.bile duct: carry bile away from hepatocytes to larger duct and gallbladder.



CLINICAL SIGNIFICANCE OF PORTAL TRIAD:

Cirhosis: The Normal arrangement of portal triad and central vein is changed as a result liver doesn't function properly. The cause of cirhosis is intake of alcohol , hepatitis virus.

Bridging fibrosis:A type of fibrosis seen in several types of liver injury that is from central vein to portal triad.

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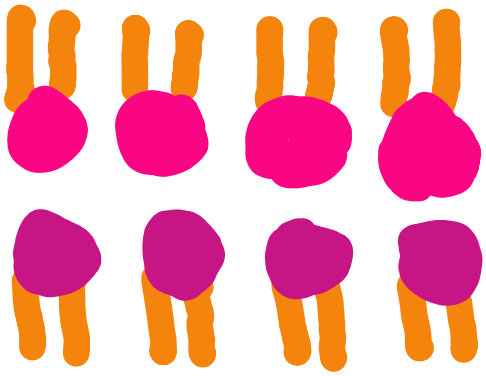
Question no 3.

Give properties of cell membrane?

PROPERTIES OF CELL MEMBRANE:

1. **Dynamic structure.**
2. **Partially permeable membrane.**
3. **Physical properties of cell membrane:the lipid bilayer in which proteins molecules are embeded , contain hydrophilic head and hydrophobic tail called fluid Mosaic model**



MEMBRANE MODEL

4.Contain proteins, lipids and carbohydrates

Proteins: integral ~~ channels, pores, carriers.

Peripheral~~enzymes and signal mediators.

Lipids: makes it differentially permeable decreases fluidity and Permeability while increases flexibility and stability.

Carbohydrates: play key role in cell to cell recognition and help In immunology of the cell.

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