

Alivery organism is some complex unit of physicochemical materials corpoble of self-regulation metabolism to regulation. They have the ability to see interact with its environment, adopt, to my grow and nove

Alloganism are - made feels, reproduce to species of its monkind, requirefol,

Whittaker's 5 kingdom classification:

Critoria: Cell type, Nucleaus presence, cell wall, nutrition, organisation

- (PROTISTA)

 the cell Brokaryolic all (MONERA)
- (2) Complex : Multicellelar/Eakorystic
 Organisation Unicellular s
- 3) Mode of Autotrophs, Saprophytis, Heterostrophes

 neutrition PLANTEA FUNGI ANIMALIA

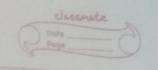
 (Yeast-surricallular) senseption in Fungi category
- · Autotrophs: make their own food for neutrition.

 Heterotrophs: rely on feeding on other organisms for nutrition.

 Saprophytes: breaks down dead organic matter for nutrition

Distinction land on-MONERA PROTISTA PLANTHE FUNCT Animalia mulitie Cycart suring Cell type: Uni deeint have uplidatived multi hous well defined mucleus multi Nucleus presence: Cellwall: Auto Metirel Aute/Hetric Saglosophyte (Russite) Sophrophytes Hetero Mode of nutrition: Auter Bertina, Amoeba, Plans, Trus Yeurt, Rugopus tg:-Blue grand god algal Aughted High lend when hyper time Natural differentation hypere Luckscell Flogetia Highland Organello pelmorement Hisuse differentiation Nervous) Cell Organelles

Reproduction - Meiosis, Self-Reproduction/Hultiply - Mitosis Kell thory: 1) All tiving organisms are made of All 2) Cells are bru tructure & function in an organism 3) Cells come from reproduction of pres-existing cells (cell division) Prokarystic cells - a Doesn't have well defined nucleus - '. Has nucleodich region which contains DNA Wentains cell membrane & cultural [peptidoglegean] · Eukaryotic celli-a) Has well-defined medius lo membrane bound organellos Nucleus DNA: - contains of cell'o genetic information. It encodes all proteins for cell function, regulation & organisation. It is involved in processes like replication, respiration, transcription and translation. 2) Moderskip DNA: - It cencodes proteins for ATP synthesis. Here, 3) Chloroplast ONA: It encodes proteins for photosynthesis. Types of all organelles :-. & proteins. It controls what enters and leaves the all as it has porous in membrane Lestoplasm: Jelly-like substance enclosed by the cell membrane. It is helps in chemical reactions to take place.



- 3) Nucleus: It is the control center of the all It has 23 pairs of chromosomer in each cell. These chromosomas has chromatin (thread like) which contains DNA and store genetic info. (genes control cell charecteristic)
- (i) DNA It is the blueprint of the cell It has a set of instructions about for basic functions of cell organilles
- (ii) Nuclear envelope: Double dayered membrane which controls what enters
 - . Inver membrane associated with retwork of preteins which help maintain shape & structure of nucleus
 - · Outer membrane continuous with ER and has ribosomes
- (iii) Nucleotus It is inside nucleus and contains 1-3 nucleolits.
 It dissapears during cell division
 - · rRNA:- Greates ribosemes -> Riboseme=nRNA+ Rrotein
 - " mRNA: Corries geneticinfo from DNA to ribosome translated to proteins.
 - 4) Cytoskeleton: Helps maintain structural integraty of the cell & move cell organelles.
 - Microfelaments Made dep of actin & myosin which help is muscle centration which insturn is crucial for anovement of cell organelles in the cell.
 - · Microtubules: Made up of tubulin which help facilitate cell division
- · Intermediate filament: Present bet microfilaments & microtubiles and help mas provides mechanical supports

		Page C
5>	(only inanimal cells) Centrosome: It plays a orucial role in organising facilitates cell division	microtulilles and
	Centrioles: - Centrosome pair = Pair of contrioles L' Centrioles are cyndrical structure made up of mi	to each other crothbules
^	These centroles appear during cell divisions for Chloroplasts: It contains chlorophyll which get green colour. It converts energy from light hence it is autobrophic. It bakes part imphot (enzyp	ning matate spirale ves plants the
6)	green colour. It converts energy from light hence it is autobrophic. It bakes part imphot (enzyp	to glucose (food), osynthesis nes & pigments)
	called thylakoids (stack of thylakoids = grane	
	Stroma: - gel like material surrounding thislake contain DNA & ribosemes.	ylakoido
	1st part of photosynthesis -> takesplace in the 2rd part of photosynthesis -> n str. Mitochandria: It is powerhouse of cell. It is the s	
	Mitochendria: It is powerhouse of cell. It is the si cellular respiration takes place. It produces a alled ATP (adenosine triphosphate).	
10110	P!- It is also referred to as energy currency of part in energy tolanger, much contraction, & le istae: It is the folded inner membrane. It.	DI-SQUING.
	istal: It is the folded inner membrane. It. urface area for chemical reactions to take (more)	
4	to dundria comes from the cytoplasm of the egg cell ortilization.	during

classmate

8) Endoplasmic Keticulum (FR) :- Synthesis of proteins & lipos teknoloca It is a network of horlow membrane tableles connected to nuclear envelope & cell membrane. Rough ER: It has ribosomes on its surface of protein rynthesis tokes place. These proteins are threwded in the interior of Rough ER to be modified be then transported. . Smooth ER: It does not have relocenes and is associated with lipid synthesis of Tipids are non steroids. It is converted at end of Rough ER. Ribosones: - Made of A Proteins + rRNA; 2 amino acido = Proteins
It is called protein factory since protein synthesis takes place.
Ribosones way be attached to Rough ER/le free in cytoplasm. 9) Golgi Bodies - Stacks of flattered sacs It recieves proteins made by ER (ais face) be transports the modified proteins in vescicles (transface). It can also temporarily store proteins during processing deserting stage food and get rid of the waste. Fello · Pragoxytosis: - all takes in food by process of phatoxytosis · Autolysis: With help of engines in brosoms, it can cause self-de self degration break down of cell. -> cell death · Autophagy; - all's own components are degraded -> recycling purpose 1) Nacuoles: - Present in plant cell, absent in Aminal & bacterial cells Stores lipids, enzymes, proteins, sugar etc.