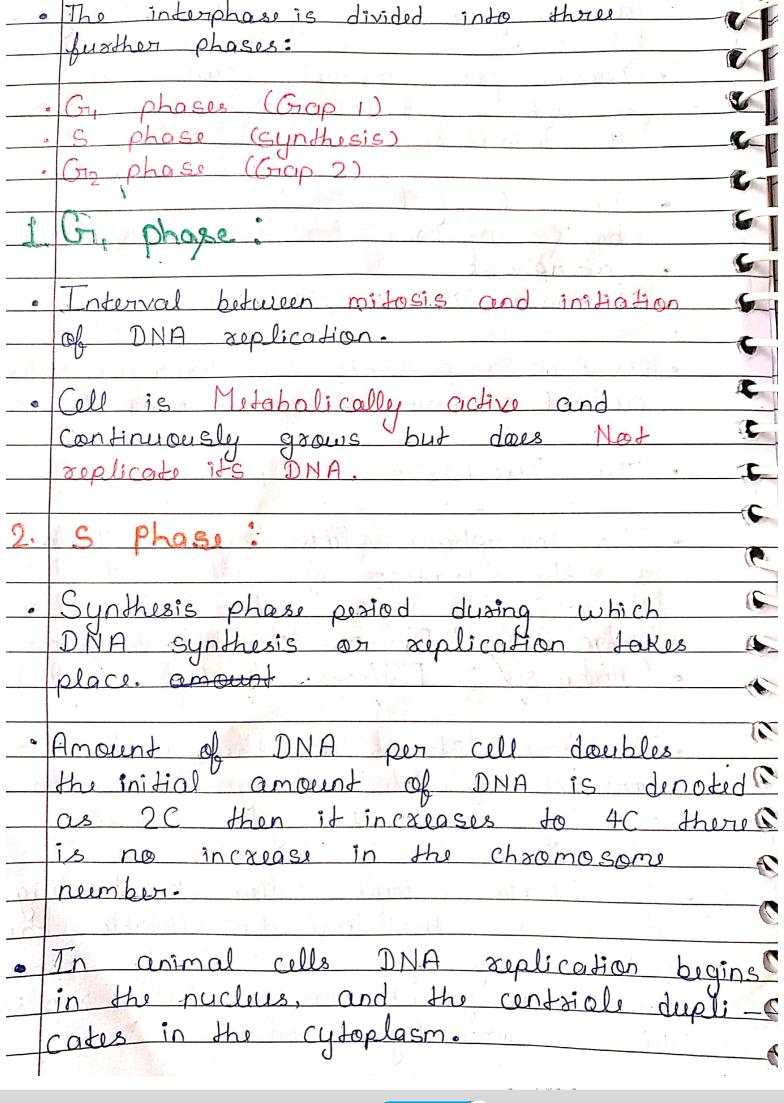


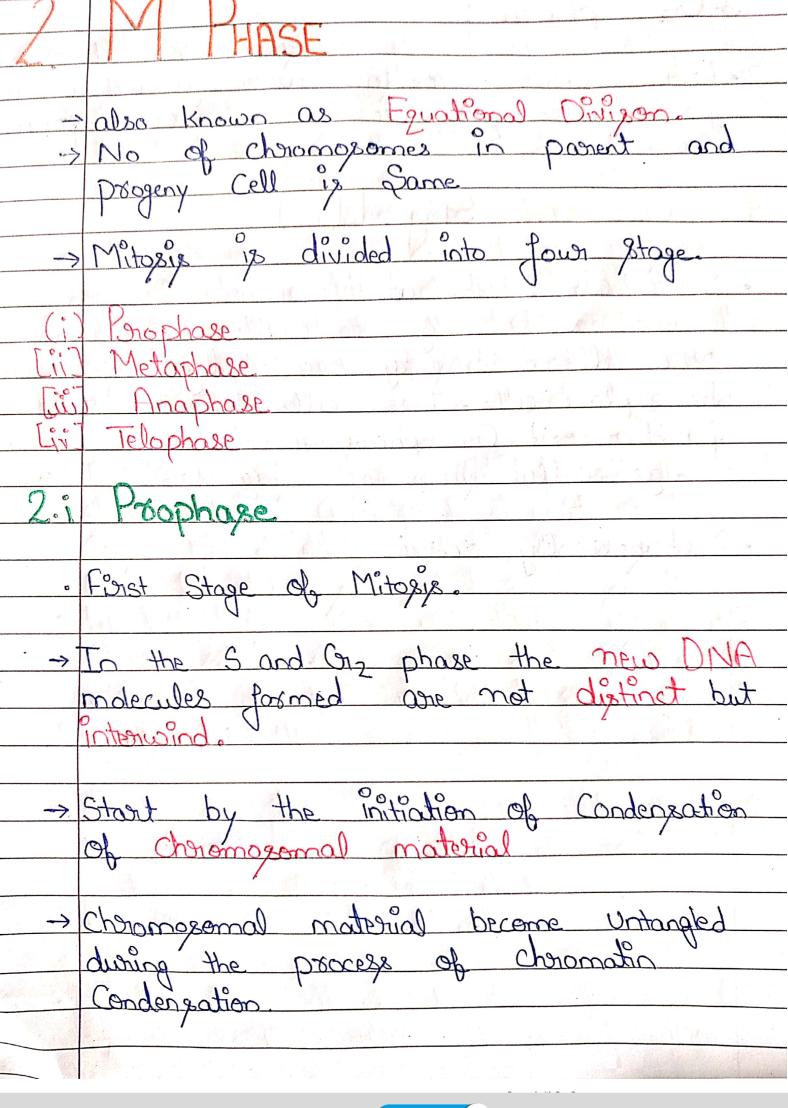
also from ell type to cell type. · Yeast for example, can progress

through the cell cycle in only about

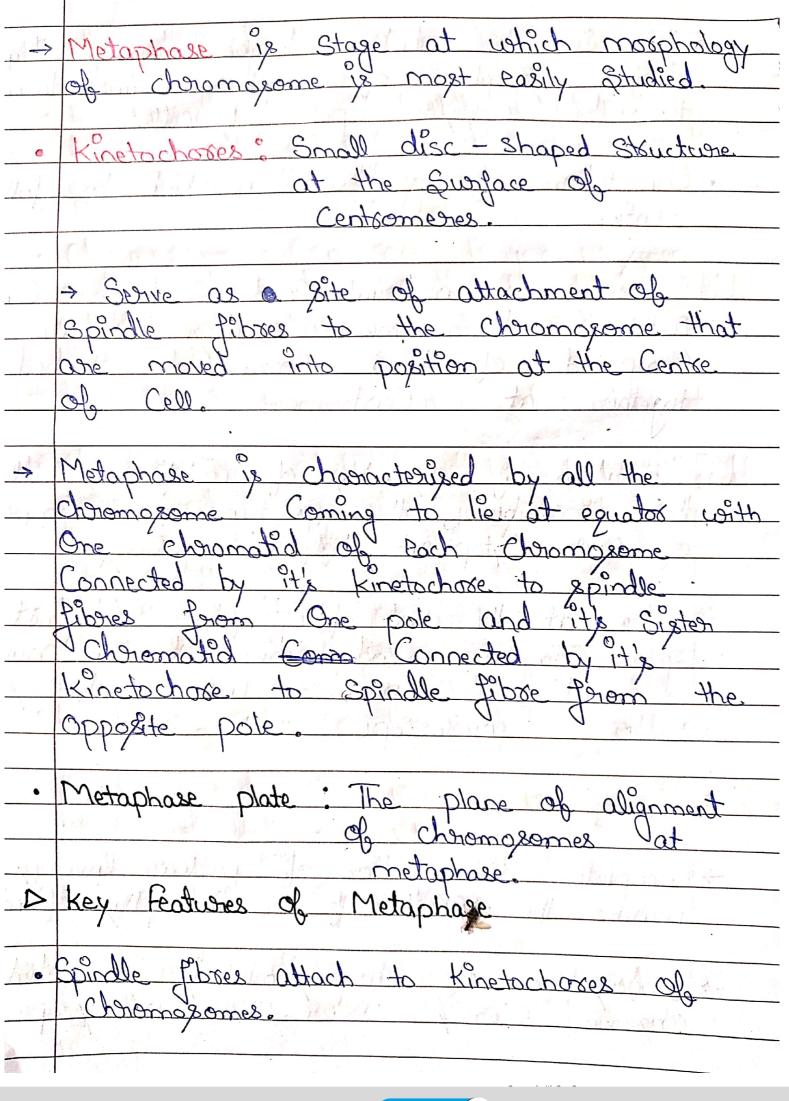
go minutes. The cell cycle is divided into two basic phases
Interphase
M Phase (Mitosis phase) · M Phase represents the phase when the actual cell division on mitosis occurs. · The successive M phases. The interphase lasts more than 95% of the duxation of cell cycle. · Kanyo Kinesis: Divison of Charomosome.
· Cyto Kinesis: Divison of Cytoplasm · M Phase Starts with the nuclear division, Corresponding to the Karyakinesis and usually ends with cytokinesis. Interphase, though called the Resting phase is the time during which the cell is preparing for division by undergoing both cell growth and DNA replication in an orderly manner.



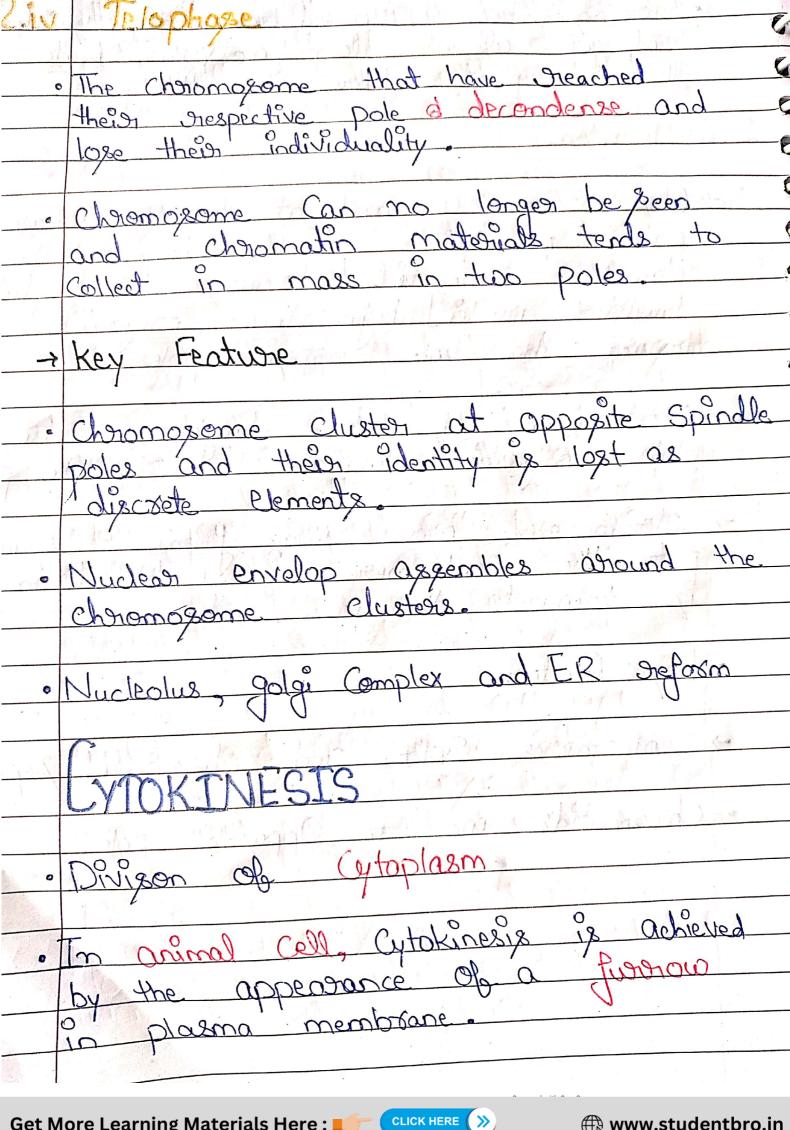
	The first control of the control of
2	- Giz phase:
	On phose, proteins are synthesised in preparation for mitosis while cell growth
	oxegazation for mitosis while cell growth
1	Continues.
	and the second of the second o
4_	Quiescent Stage [Cro]
	A lateral A late
	Some colle in the adult animals Do not
•	exhibit division (e.g. heart cells) and many other cells divide only occasionally as needed
A	all colle divide onle occasionally as needed
	to replace cells. These cells that do not divide
	10 septace cells. Inter consinactive
	further exit Cr. phase to enter an inactive
	Stage called Quiescent Stage (Gro).
\dashv	
•	Metabolically active.
	A SECOND REPORT OF THE PROPERTY OF THE PROPERT
-	A MA I WE THAT I WANT TO SEE THE SECOND SECO
	All a we with in day grills have det with a office
	the town of the sent when have note the testimon of
8-1	THE NEW WORLD HAVE LANGUAGE
7	
	We will be the second of the s
20	Start In the John 13 Part of the Land
	A LEAST DE LOCALE CONTRACTOR
	Lyden tout you with the state of the property of and
600	The second of th



The Centrale which Undergene during duplication duplic · Completion of prophase marked by following events. Composed of two Chromosomes attached together at Centromore Thit ation of assembly of mitatic spindle, the microtubules, the proteinaceous Components of Cell Cytoplasm help in process Jolgi Complexes and of prophase do not show golgi Complexes and Endophasmic Deticulum nucleatus under the nuclear envelop when seen under microscope. 2. ii Metaphase -> Complete disintegration of nuclear envelops montes the stort of Secound phase of mitosis. -> Condensation of Chromosomes is Completed and Observe Clearly under the microscope.



Chromosomes are moved to spindle Equators
and get aligned along metaphase plate
through Spindle Jibres to both poles. chromosome aboranged at the metaphase plate is Split Simultaneously and the two daughter chromatids [Chromosome of future daughter micher] begin their migration towards the two opposite poles. - Charomosomes of future daughter nuclei begin their raignation towards too Opposite poles. chromosome moves away from the equational plates the Centromore of each chromosome is towards the Pole and Key Feature Man plan -> Centromères Split and Chromatid seprote -> Chromatids move to Opposite pole.



The function gradually deepens and Ultimately joins in the Centre dividing the Centre Centre dividing In plant Cell, wall formation stood in the Centre of Cell and group Outward to neet the Existing laterals walls. The formation of new cell wall begins with the formation of a Simple procursor Called the cell plate that precursor Called the Cert pour of represent middle lamella blu walls of two adjacent Coll. Followed by Cytokinesis as a Gresult
Multinucleate Condition arise. Significance of theopie Mitoris Equational division is restricted to diploid In Some lower plants and in Some Social insect haploid Cell also divide by mitosis · Result in production of diploid daughter cells with identical genetic Complement · Crorowth in multicellular Organism is due to

The Cells of the upper layer of epidermis, cells of lining of gut blood Cell are constantly deplaced through mitosis. nesult in Continous growth of plant. -> also known as Reductions It is a Specialized kind of Coll reduce the chromozome by half tresult in production four hapland Call from Come Key Features of Meiosis. Involves two Sequential Cell Cycle of nuclear and Cell divisor Called Merosis I and Merosis II but Only a Single Cycle of DNA replication Meiosis T is initiated after the

Posiental Chromosome have supplicated

to produce jelentical Siester

Meiosis involves the pairing of homologous chromosome and trecombination blue them. Four haploid Cells farmed at the end
of meiosis I.

4.1 Meiosis I Prophase I: longer and Complex when

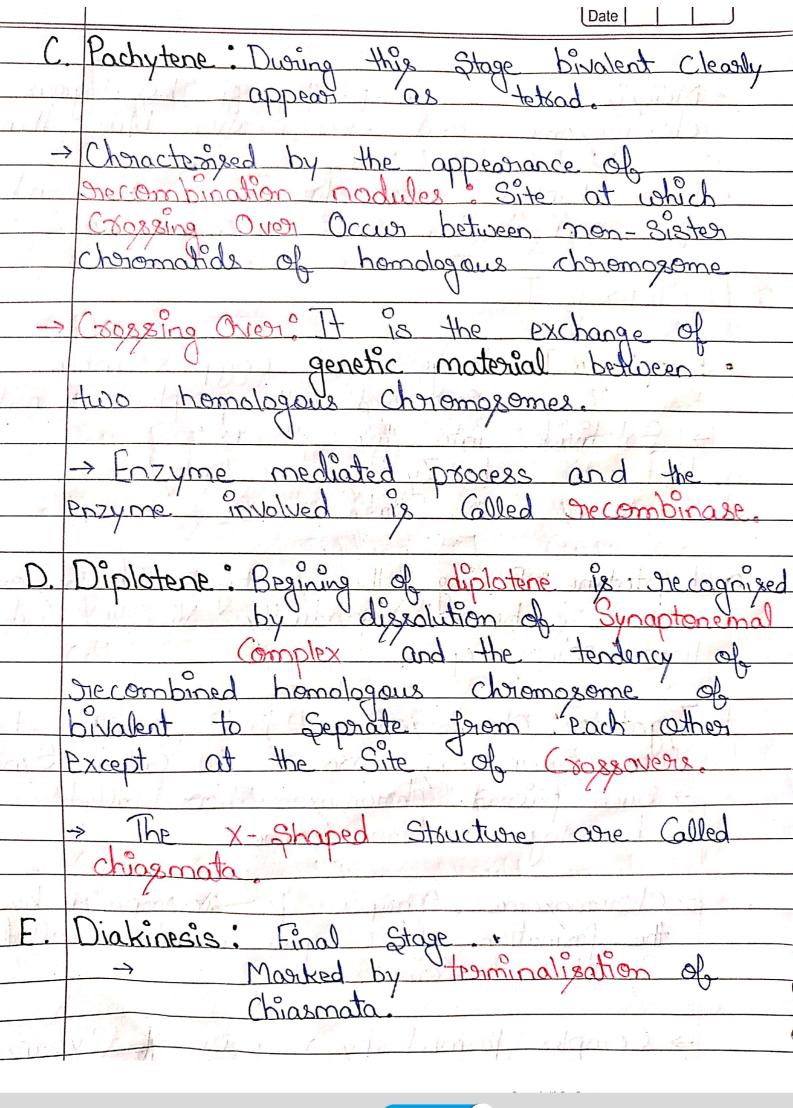
Compared with prophase of mitosis.

→ Subdivide into five phases:

a leptotene b. Zygotene C. Pachytene

d. Diplotene e. Diakinesis. a Leptotene: During these Stage Chromosome become gradually Visible under the b Zygotene: Cheromozome Start pairing together
and this process is Called Sympsis

- Such paired Cheromozome are Called
homologous Cheromozome - Chromosome Synapsis is accompanied by the formation of Complex Structure Called Synaptonemal Complex. -> Complex formed by a pain of Synapsed homologous Chromosome is Called a bilalent or a tetrad



The chromosome are fully condensed and the meiotic Spindle is assembled to prepare the homologous chromosome for sepration: -> At the And of diakinesis the nucleolus disappears and the nucleon briefop also break down. Metaphase I Bivalent Chromosomes align on
the eguntonal plate.

The microtubules from the Opposite pole of
the spiralle attach to the pain of
homologous Chromosomes. • Anaphase I The homologous Chromosome Separate while Sister Chromatids remain associated at their centromeres. • Telophase T. The nuclear membrane and nucleaus Greappear Cytokinesis follows and this is Called as good of Cells. Interkinesis: Stage between two mejotic divisor is Called interkinesis.

II: Tritiated immediately after Cytokinesis · Perophase -> The nuclear membrane disappears by · Metaphase II: Cheromosome align at the E equator and the microtubules: from apposite pole of Spindle get attached to the kinetochooses. · Anaphase II Begins twith the Similtaneou thing of Centromere to move toward opposite poles of Telophase II: Two group of chromosome Once again get enclosed by a nuclear envelope. > Cytokinesia Pollow Tresult in formation
of tetrad of Cells.

	Date
	Significance OF Mejosis.
4	
o	Mechanism by which Conservation of Specific Chrismosome number of each species
	Specific Chromosome number of each species achieved across generation in Sexually reproducing organism.
	is achieved across generation in
	Sexually Dieproducing Organism.
	Are a large of the second of t
0	Result in Fresult reduction of chromoson
	number by half.
5	
٥	Increase the genetic Variability in the
	Increase the genetic Variability in the population of Organism from One generation to Next.
y in	generation to Next.
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