

DTI (S/G)

CELL CYCLE

Cell division is a very important process in all living organisms. During the division of a cell, DNA replication and cell growth also take place. All these processes i.e., cell division, DNA replication, and cell growth, hence have to take place in a coordinated way to ensure correct division and formation of progeny cells containing intact genomes. The sequence of events by which a cell duplicates its genome, synthesizes the other constituents of the cell and eventually divides into two daughter cells is termed cell cycle.

Although cell growth (in terms of cytoplasmic increase) is a continuous process, DNA synthesis occurs only during one specific stage in the cell cycle. The replicated chromosomes (DNA) are then distributed to daughter nuclei by complex series of events during cell division. These events are themselves under genetic control.

A Phases of Cell cycle

APRIL 2019						
Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

A typical eukaryotic cell cycle is illustrated by human cells in culture.



Monday these cells divide once on approx  
sorely every 24 hrs. However, this  
duration of cell cycle can vary from  
10 organism to organism and also from  
cell type to cell type. Yeast for example,  
can progress through the cell cycle in  
only about 90 minutes. The cell cycle is  
12 divided into basic phases:

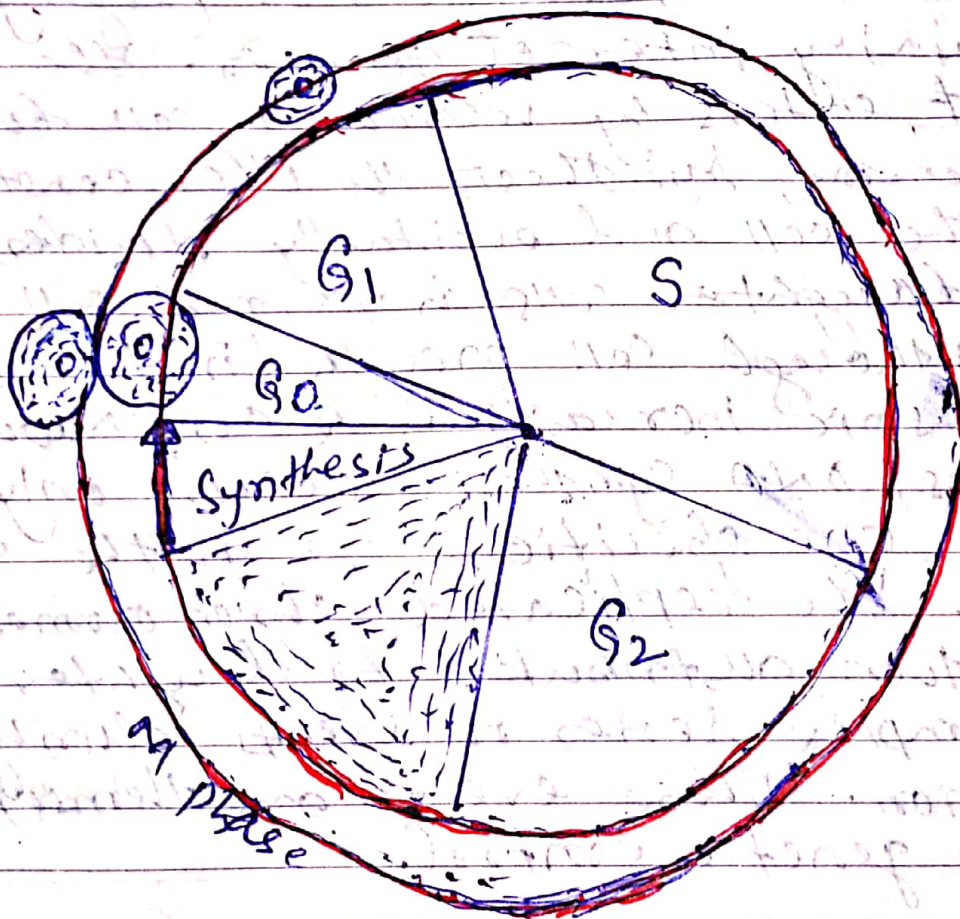


Fig: View of cell cycle