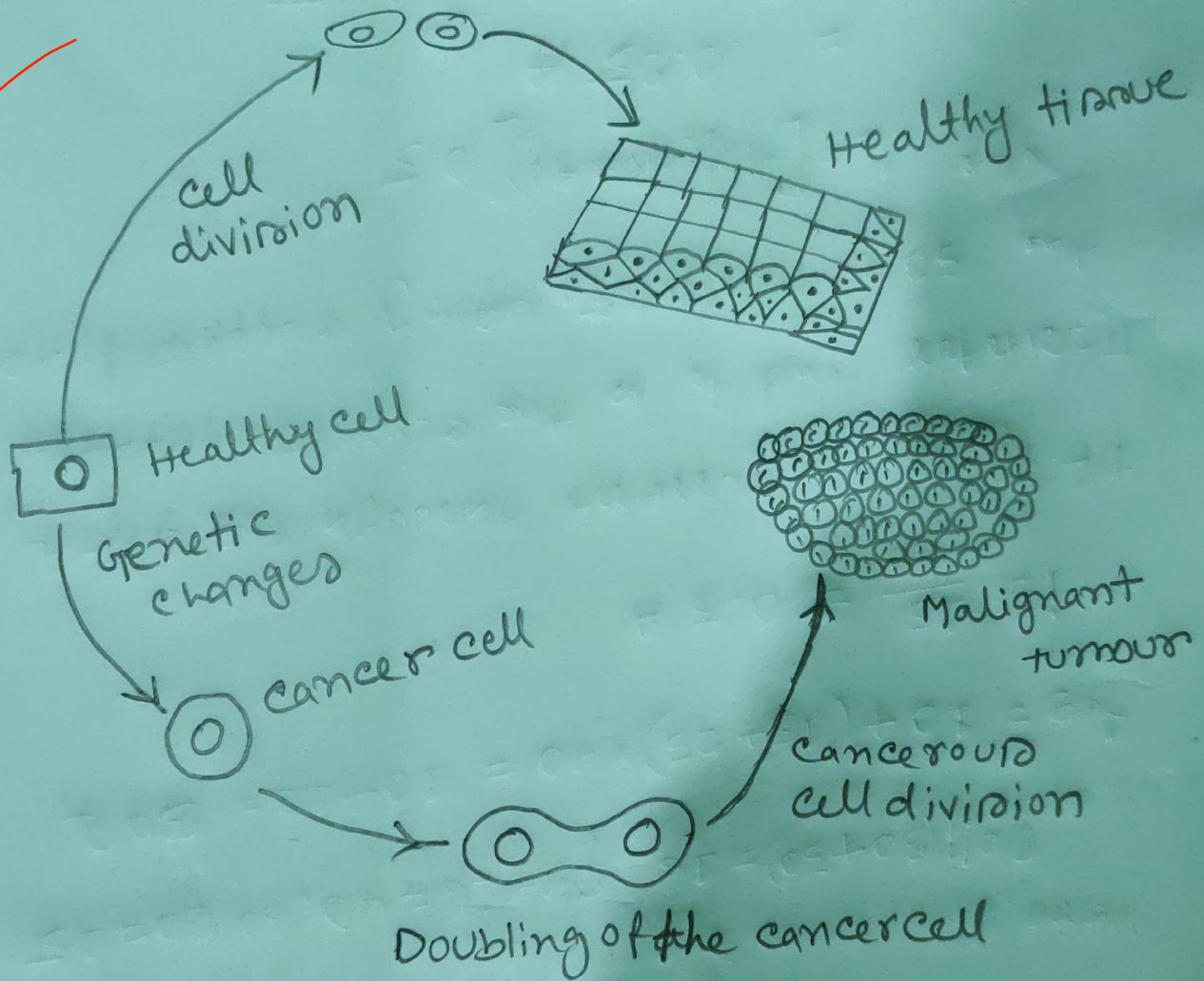


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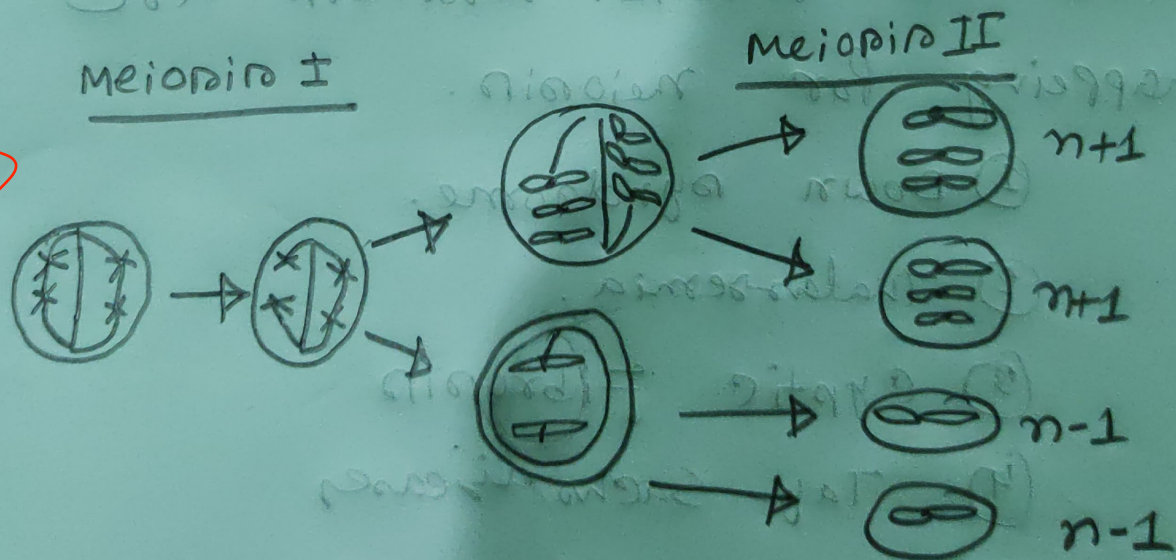
Normal cell development



Abnormal growth of the cell

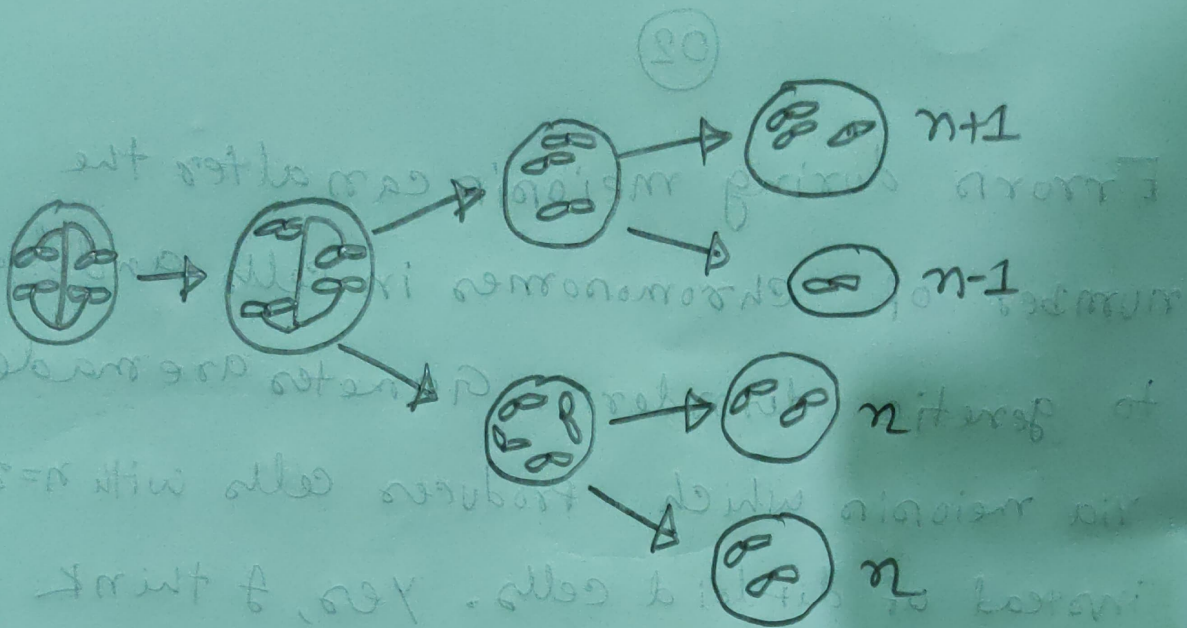
(02)

Errors during meiosis can alter the number of chromosomes in cells and lead to genetic disorders. Gametes are made via meiosis which produces cells with  $n=23$  instead of diploid cells. Yes, I think genetic disorder can be carried through all the gametes from meiosis.



P.T.O





There are several diseases that is known as genetic disorders are happening for meiosis.

- ① Down syndrome.
- ② Thalassemia.
- ③ Cystic Fibrosis
- ④ Tay-Sachs diseases
- ⑤ Sickle cell Anemia

So, it can say yes in that case.. genetic disorders are carried through all the gametes from meiosis.



(03)

(20)

(01) chromosomes in down syndrome, one of the most common human conditions due to aneuploidy. There are three chromosomes ~~in the last row~~ 21 (in the last row). Aneuploidy is the presence of an abnormal number of chromosomes in a cell, for example a human cell having 45 or 47 chromosomes instead of the usual 46. And we know down syndrome is widely well-known example of a chromosomal aneuploidy, it caused by an extra copy of chromosome 21 known as trisomy 21. While a trisomy can occur with any chromosome, the condition is rarely viable.



(03)

(20)

(b) Down syndrome and Turner's syndrome are example of aneuploidy. Ploidy is common in plants and plant growers may exploit this fact to produce plants with flowers having double petals. Aneuploidy is a chromosomal mutation in which there is one or more extra chromosomes, or one or more fewer chromosomes. on the other hand, polyploidy is also related with the chromosome. It is a chromosomal mutation in which a cell has entire extra sets of chromosomes. Polyploidy is generally lethal in Animals. Aneuploidy is the presence of an abnormal number of chromosomes in a cell.