

Marks

Question 20 (4 marks)

Outline how mitosis and cell differentiation assist in the maintenance of health.

4

Mitosis and cell differentiation are processes that help in the growth and repair of cells, and also in the reproduction of cells. Both processes assist in the maintenance of health by the role they play in the reproduction processes. If mitosis isn't carried out fully, or if there is a mutation of some sort, then optimal health is not reached and cells may die or the organism may be affected. Cell differentiation works on the same basis as mitosis; if the cells don't split fully or if they split too far, the health of the organism/cell is not maintained.

∴ Mitosis + cell differentiation play major roles in the maintenance of health.