

Marks

Question 19 (continued)

The answers to the questions on page 19 are the processes which can remove the substances that may be found in water extracted from the lake.

Water (H₂O) of the lake processes and explain how the process reduces the risk of infection from pathogens.

~~Answer~~ ... The water is filtered through filters that remove large particles including some microbes. Disinfection of the water is done by chlorine, which is added to the water. This kills any small particles, e.g. viruses, which are not removed by filtration. The water is then filtered again to remove any chlorine and harmful substances. The water is then filtered again to remove any chlorine and harmful substances.

Question 20 (4 marks)

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

4

Mitosis, which is the replication of cells and cell differentiation which is when cells become specialised and have specific functions, assist the body in the maintenance of health. Without mitosis, there would not be enough cells in the body to carry out specialised roles. Therefore, after mitosis, cell differentiation occurs, and this is important as many cells have their own ways of fighting off diseases and maintaining the body's health. For example, white blood cells are important in the second and third line of defence and help to engulf antigens and destroy them. Mitosis is also important because if some cells ~~are~~ become mutated and die (e.g. cancer cells), mitosis can produce new, healthy cells and therefore the maintenance of health can continue.