

Marks

Question 27 (8 marks)

Evaluate the contributions made by both Louis Pasteur and Robert Koch to our present understanding of the causes and possible prevention of infectious diseases.

8

Louis Pasteur & Robert Koch both recognised that infectious diseases were caused by micro-organisms.

Louis Pasteur conducted an investigation using 2 flasks of boiled broth to prove that disease containing spores existed in the air & not produced spontaneously on food etc. To prove this one flask was left open while the other flask contained a S-shaped tube to stop the spores from entering the flask.



The ~~open~~ broth in the open flask became contaminated while the broth in the S-shaped flask remained uncontaminated as the spores became trapped in the bend. This process became known as pasteurisation & is used to culture milk & other products.

Robert Koch conducted investigations of the anthrax disease in cows & another <sup>human</sup> disease to find their exact causes, etc. He invented a procedure which is still used today to <sup>determine</sup> ~~discover~~ the causes & ways to prevent them.

By understanding the causes of diseases we are able to some degree prevent them. The investigations of these 2 men has contributed to our understanding on how diseases are caused, therefore allowing us to work on preventions & cures.