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Problem Statement 1:

Coronavirus disease **(COVID-19)** is an infectious disease caused by the SARS-CoV-2 virusCoronaviruses are a family of viruses that can cause respiratory illness in humans. They are called “corona” because of crown-like spikes on the virus's surface. Severe acute respiratory syndrome (SARS), Middle East respiratory syndrome (MERS), and the common cold are examples of coronaviruses that cause illness in humans. Being of such a magnitude, researchers and top universities joined hands in learning more about the virus . Thanks to the advancements in the internet, these data are available on various websites

Q1) Explain the mechanisms of SARS-Cov-2 infection in the human body.

- One of the first steps in “debugging” viruses is comprehending how it enters our cells and replicates their genome to disrupt regular cell function.
- COVID-19 was a fatal outbreak, and similar pandemics may arise again in the future. The outbreak led to an outpouring of response from researchers to try and stop the spread of COVID-19, but this wasn’t as quick as one hoped. A swift and well-documented compilation of information would have allowed researchers to collaborate more efficiently. Your job is to document the mechanisms of how the virus can infect the cell.
- Create a Word document/Google Docs file and write the needed.

Q2) Being an ssRNA virus, can the SARS-Cov-2 viral genome integrate itself with the human genome? Could this potentially have long-term consequences?

- RNA viruses like HIV-1, MLV, and MeV have certain diseases associated with integrating the viral genome into host gene expression. These have potentially life-altering complications and have led to the loss of millions of lives. Do you believe there might be similar consequences with COVID-19?