The novel coronavirus has a lipid envelope. Soap being a detergent destroys this envelope. The same is true for alcohol also.

Structure of Lipid Envelope:
- SARS-CoV-2 particles, like other coronaviruses, are spherical and have proteins called spikes protruding from their surface.
- These spikes latch onto human cells, then undergo a structural change that allows the viral membrane to fuse with the cell membrane. The viral genes can then enter the host cell to be copied, producing more viruses.
- Recent work shows that, like the virus that caused the 2002 SARS outbreak, SARS-CoV-2 spikes bind to receptors on the human cell surface called angiotensin-converting enzyme 2 (ACE2).
- All of this is held together by a fatty layer, called an envelope.

Functioning of Alcohol in Sanitizers:
- The Envelope layer is disrupted when it comes into contact with soap or a hand sanitiser with more than 60% alcohol.
- Disruption of the envelope leads to the killing of the virus.
- Handwashing for 20 seconds at least kills the virus.