**16/MHS06/021**

**Open Test**

Coronaviruses are a large family of viruses that are known to cause illness ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS).

**The Etiology of COVID- 19**

Coronaviruses are zoonotic. This means they first develop in animals before developing in humans.

For the virus to pass from animal to humans, a person has to come into close contact with an animal that carries the infection.

Once the virus develops in people, coronaviruses can be spread from person to person through respiratory droplets. This is a technical name for the wet stuff that moves through the air when you cough or sneeze.

The viral material hangs out in these droplets and can be breathed into the respiratory tract (your windpipe and lungs), where the virus can then lead to an infection.

The 2019 coronavirus hasn’t been definitively linked to a specific animal.

**Origin of COVID- 19**

Cases of Covid-19 first emerged in late 2019, when a mysterious illness was reported in Wuhan, China.

On 11 February the World Health Organization announced that the official name would be covid-19, a shortened version of coronavirus disease 2019.This is not the formal name for the virus.The International Committee on Taxonomy of Viruses calls it the “severe acute respiratory syndrome coronavirus 2”, or SARS-CoV-2, because it is related to the virus that caused the SARS outbreak in 2003. However, to avoid confusion with SARS the WHO calls it the covid-19 virus when communicating with the public.

**Structure of COVID-19**

The structure of COVID-19 (SARS-CoV-2) consists of the following: a spike protein (S), hemagglutinin-esterease dimer (HE), a membrane glycoprotein (M), an envelope protein (E) a nucleoclapid protein (N) and RNA.

**Pathophysiology of COVID-19.**

COVID-19–related deaths in China have mostly involved older individuals (≥60 years) and persons with serious underlying health conditions. In the United States, attributable deaths have been most common in adults aged 85 years or older (10%-27%), followed by adults aged 65-84 years (3%-11%), adults aged 55-64 years (1%-3%), and adults aged 20-54 years (< 1%). As of March 16, 2020 no fatalities or ICU admissions had been reported in persons aged 19 years or younger.