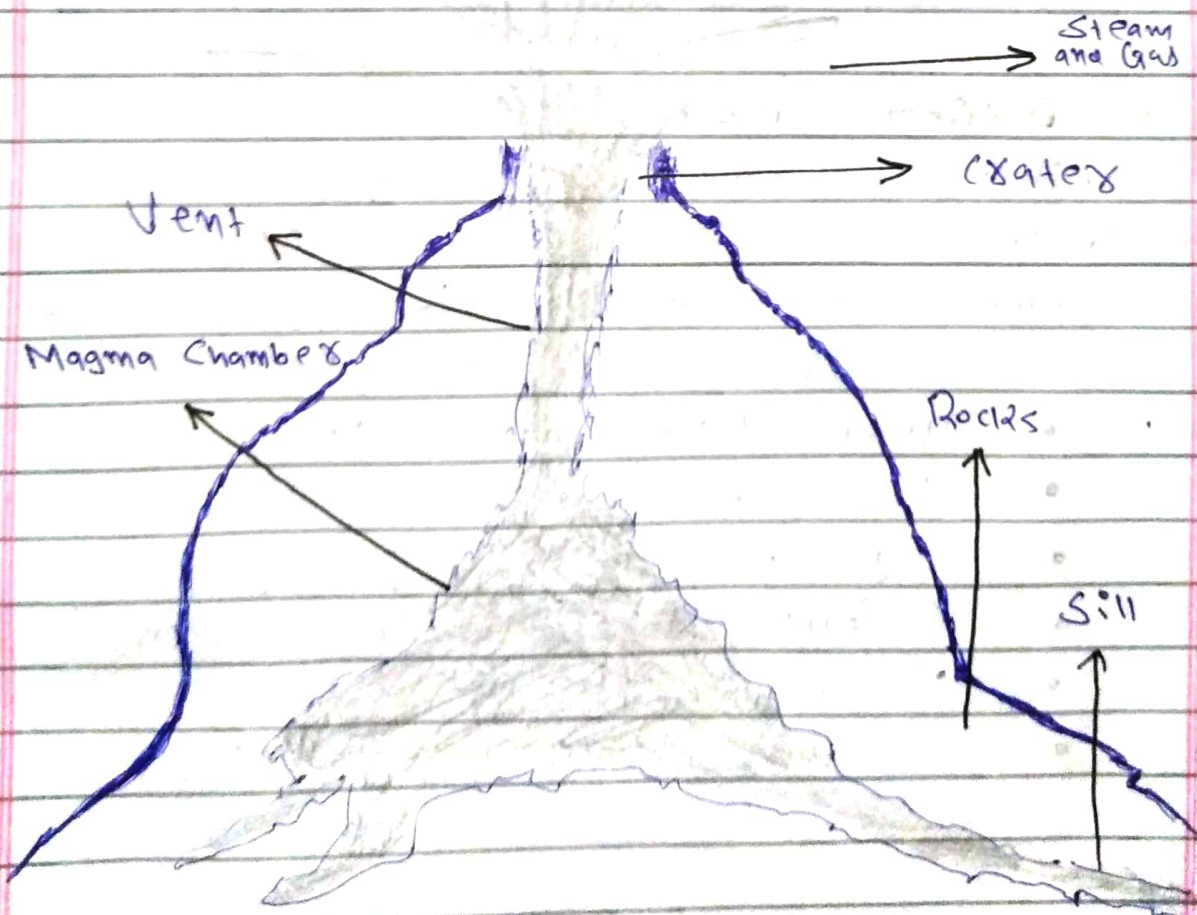


What do you know about volcanoes?
Discuss the causes and effects
of volcanic eruptions. (2022)

Ans: A volcano is simply an opening
of earth's surface through which
molten escapes onto the earth's
surface.

1- The origin of the word volcano
The word volcano is derived from
the name of Vulcano (a volcanic
island in Aeolian island of Italy).
Besides, the word volcano its
came from Vulcan (the god
of fire in Roman mythology). However,
the study of volcanoes is called
volcanology.



2- Classification of Volcano

a. Active Volcano

These volcanoes erupt frequently and are still in active position. For example, Mount Hood is an active volcano that is currently dormant. In addition to it, Kilauea is also an active volcano that is currently erupting.

b. Dormant Volcano

These volcanoes do not erupt for very long time, but they can occur any time. It means they are expected to occur again. For example, dormant volcanoes are in Mount Kilimanjaro, Tanzania, Africa and Mount Fuji in Japan.

c. Extinct Volcano

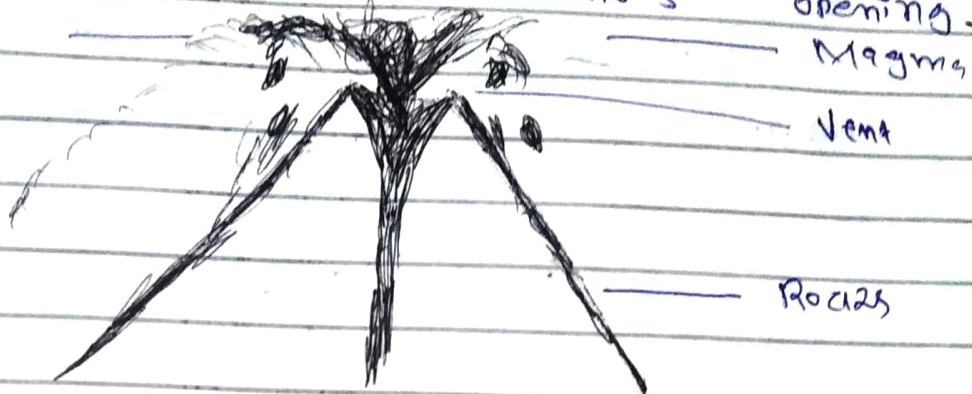
Unlike dormant volcano, extinct volcanoes are not expected to erupt in future; they, to say, are dead volcanoes. For example:

- Olympus Mons (on Mars)
- Huascaran in Peru
- Ikyushu in Philippine Sea
- Mount Thielsen in Oregon
- Tamu Massif in Pacific Ocean
- Waw Namus in Libya

3- Types of Volcano

a. Conical Volcanoes

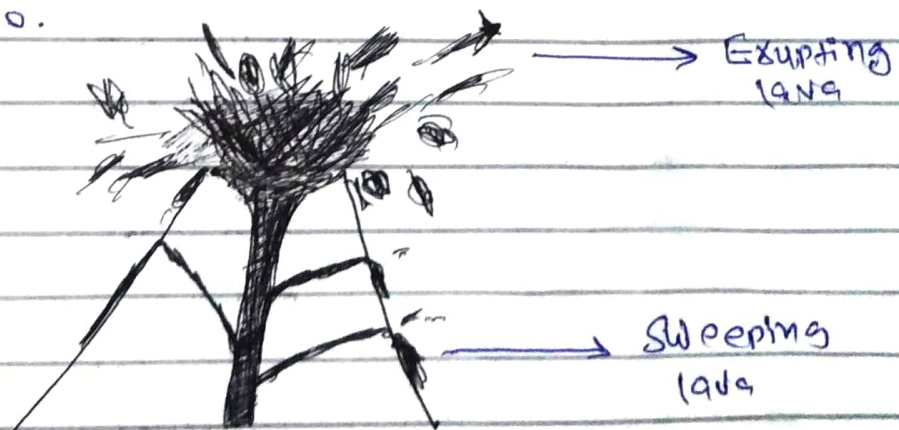
These volcanoes throw magma into the air, and it settles around the volcano's opening.



Examples include Mount Sutibachi in Japan, Smith, Taal, Mount Mayabobo in Philippines.

b. Composite Volcano

Composite volcano has multiple eruptions. It has both activities lava eruption and the lava that sweep sides of volcano.



Examples of Composite volcanoes:

- Mount Fuji in Japan
- Mount Shasta in California
- Mount Hood in Oregon
- Mount Cotopaxi in Ecuador

Causes of Volcanic eruption

a. Hot temperature of earth crust
In comparison with the temperature on the surface of earth, it has very hot temperature inside. Earth mantle is too hot, and its temperature ranges from 1000°C to 3000°C Celsius.

b. Melting of rocks
Inside the earth, there are rocks which melt due to high pressure and temperature.

c. Light weight of melted substance
The melted substance are light and easy to float. However, it turns out into lava, and comes up easily.

d. Creation of the magma
Magma is composed of an astatic and rhyolitic components along with water, sulfur chloride, and carbon dioxide in dissolved form. By forming bubbles, excess water is broken up with magma. When the magma comes closer to the surface, the level of water decreases and magma rises in the channel.

Effects of Volcanic eruption

a) Mass killing due to fire

A volcanic eruption can lead to mass death. In May 1902, a volcanic eruption killed 29,000 people and destroyed the city of St. Pierre. This is the largest number of casualties for volcanic eruption this century.

b) Serious health issues of gas exposure
As a result of longer exposure to volcanic gases, the severe health issues begin to develop.

For example, Bronchitis and infection of the lung. It also cause infectious diseases, i.e. conjunctivitis.

c) The occurrence of earthquake
Volcano triggers earthquakes have the potential to cause cracks, ground deformation and damage to manmade structures. The examples are Neuado del Ruiz (1985) and Cotopaxi (2002).

d) Volcanic landslide

The landslide that caused by volcano is called volcanic land slide. For examples, lahars mud slide in Alaska.