

# **Thunderstorms -**

**A storm is a disturbed state of environment creating severe weather conditions mainly high speed winds. A thunderstorm is a storm with sound and lightning and typically also heavy rain or hail.**

- Thunderstorms develop in hot and humid areas.**
- High temperature in this areas cause hot humid (with water vapours) air to rise up. So, strong upward rising winds with water droplets are generated.**

- **At high altitude, these water drops freeze and fall again towards earth.**
- **Upward movement of air and downward movement of water drops, together, cause lightning and sound.**



# **Cyclones -**

**A Cyclone is a large scale air mass that rotates around strong centers of low pressure.**

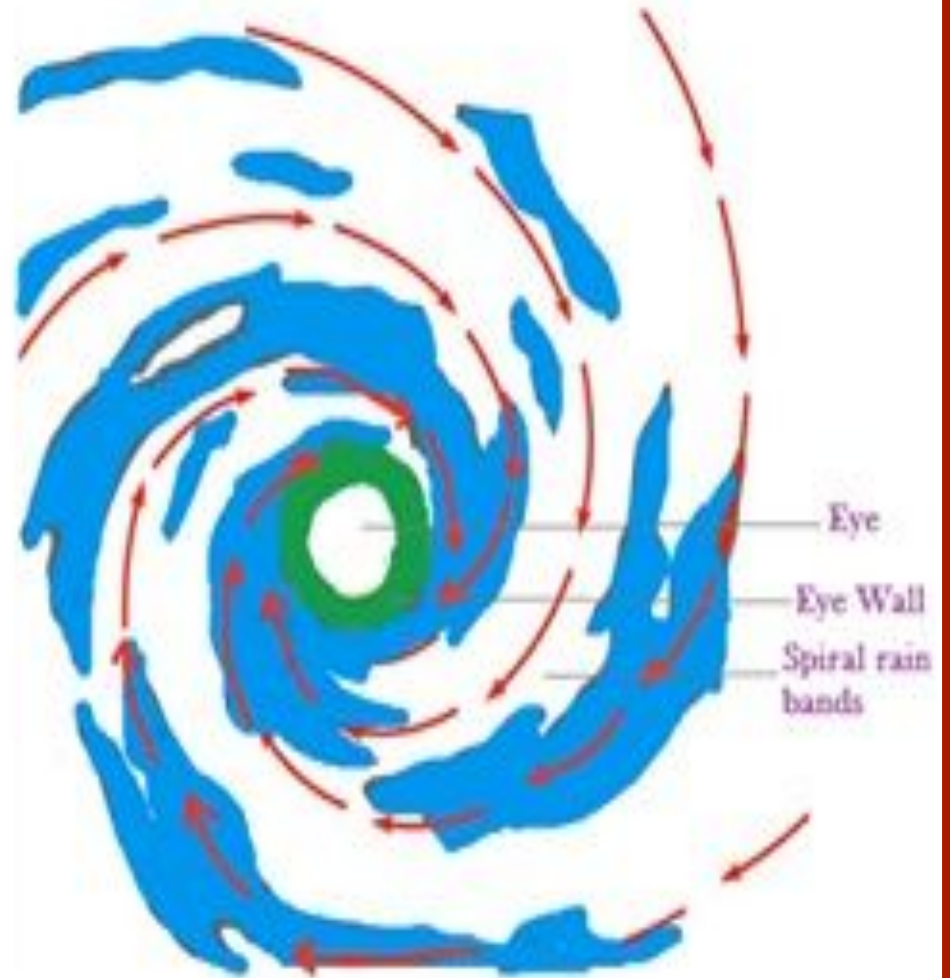
- **Water vapors are formed when water is heated.**
- **This heat is released to atmosphere when water vapors convert to water during rains.**
- **The heat released, warms the air around and makes it to move up. This also results in decreased air pressure.**

- **Hence, cooler air from surrounding rushes to take the warm air's place.**
- **This repeats till a low pressure system with surrounding high speed winds is created. This is called a Cyclone.**
- **Cyclone depends on wind speed, direction, temperature and humidity.**

**Cyclones are also called Hurricane in USA and Typhoon in Japan and Philippines .**



Cyclone formation over Sea



Structure of a Cyclone

# **Structure of Cyclone -**

**The structure of cyclone contains:**

- **Eye – Low pressure and area of sinking air. Its diameter ranges from 10-100 kms.**
- **Eye Wall – Dense cloud surrounding eye having maximum wind speed. It causes maximum destruction.**

**Spiral rainbands – Band of clouds spiraling into eye wall and it contains heavy rains.**

# **Destruction by Cyclones -**

- **East coastline of India (Mainly Orissa) is prone to Cyclones being a coastal area.**
- **Cyclone hit areas result in loss of life, property, communication and transportation systems.**
- **Cyclones cause a wall of water to move from sea towards shores resulting in destruction.**
- **Cyclones also bring heavy rainfalls which could lead to flood situations.**
- **Damages agricultural land and reduces soil fertility.**





# PLENARY -

**Q. What is a thunderstorm?  
Explain its cause.**

# ASSESSMENT / EVALUATION -

**Q. Why is Chandigarh unlikely to be affected by a cyclone?**

**A. Chandigarh is unlikely to be affected by a cyclone because it is not near to the sea or an ocean.**