ASSIGNMENT:

Define Structure and atmosphere of Sun?

INTRODUCTION: Sun is a Star, Planets, Dwarf planets, and Solar System bodies (asteriods and Comets revolves around Sun, solar system is Stationed in Orion-cygnus arms and its age is about 4.6 billion years. Natural Satellite(moon) revolves around Earth and Artificial setulite revolve around International Space Station.

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STRUCTURE OF SUN:

The Sun is made up of three inner layers and three outer layers. Six layers in total. The layers are the core, radiative zone, convective zone, photosphere, the chromosphere, and the corona.

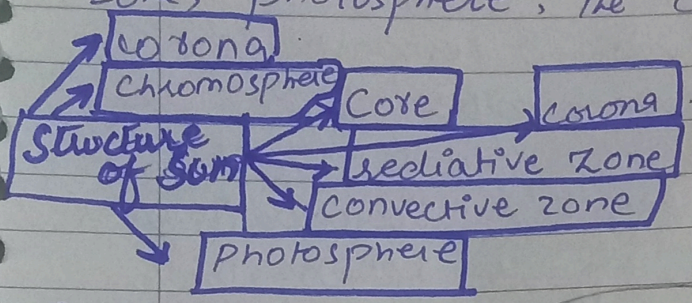
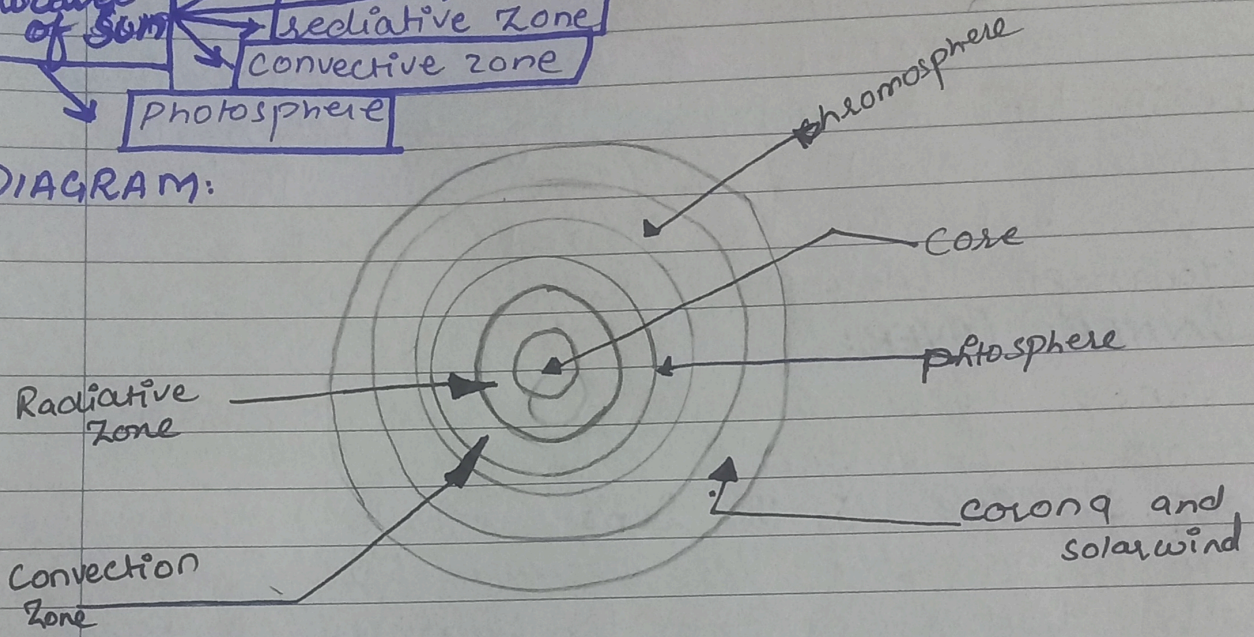


DIAGRAM:



OUTER LAYER

outer layer consist of photosphere, chromosphere and the Corona.

① **Photosphere**: This is the Sun's lowest layer and layer visible directly from Earth. It is also called Solar Surface. Much of this layer is covered by granulation caused by bubbling gas in the convention layer and sunspots caused by strong magnetic field.

② **Chromosphere**: This is the layer of the Sun betw 250 miles and 1300 miles above the photosphe above the Photosphere. The chromosphere has temperature around 4000 degrees

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Kelvin at the base and 8000 degrees Kelvin at the top. As a result in this layer and other higher layers of the sun, the temperature increases further away from sun

Corona: This is the sun's outermost layer. It starts at roughly 1300 miles above the photosphere and has no upper limit. Its temperature is between 500,000 degrees kelvin to 1 million degrees kelvin. The Corona cannot be seen with the naked eye but can be viewed using a coronagraph telescope during a total solar eclipse.

INNER LAYER:

Inner layer consist of core, Radiative Zone, convention Zone.

CORE: the core is the sun's middle region where energy is generated by thermonuclear reactions, which creates extreme temperatures of about 15 million degrees celsius These nuclear reactions use hydrogen to produce helium. As a result energy is released, which leaves the Sun's surface as light and heat, which we recieve on earth, according to NASA studies. The core extends to roughly a quarter of the way from the Sun's center.

Radiative Zone: This zone is between the core and the convective zone and is roughly 70% of the Sun's radius. Energy produced through nuclear fusion in the core moves steadily outwards as electromagnetic

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radiation, taking over 170,000 years to pas
through the radiative zone.

Convection Zone: The layer of Sun is above the radiative zone and is the outer most layer of the Sun's interior. It stretch from as deep as around 200,000 km right u to the visible surface. The temperature at the bottom of convection zone is about 2 million degrees Celsius.