

Name:- Laiba Maheen

Batch:- Online 70 (15b)

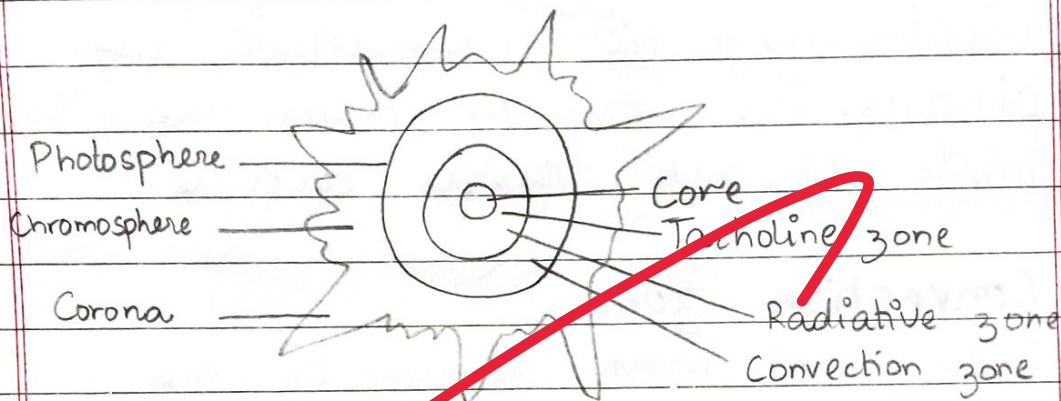
Section:- 1

Question:- 3

a) Explain and draw the structure of the sun.

Provide comprehensive answers with clear, concise explanations. Edify your answers with diagrams

- Structure of Sun:-



Structure of the sun includes the internal structure as well as the outer atmosphere of the sun.

• Internal structure:

Internal structure of the sun is mainly divided into three parts, following are the parts of sun's structure:-

i) Core:-

Core is inner most region of the sun. The nuclear fusion reactions of Hydrogen converting into Helium occurs in the core, making it the hottest part of the sun.

2) Radiative zone:-

It is the second region of sun, which comes in between core and convection zone. It is further divided into two parts. The area closer to the core is known as tachdine zone, while the area closer to convection zone is known as radiative zone. As the name suggests, this zone transports electro-magnetic radiations by photons. The energy from the inside of sun travels outside.

3) Convection zone:-

The outermost layer of the sun. After this layer the sun's atmosphere starts. Convection as a process or mode is used in this layer to transfer energy.

• Atmosphere of sun:-

Atmosphere of sun is also divided into 3 parts:-

1) Photosphere:-

The innermost layer of the sun's atmosphere, lies above convection zone. It is a visible surface, and is the area from where most of the sun's energy is emitted.

2) Chromosphere:-

It is the layer above photosphere.

It appears or emits reddish glow due to super-heated hydrogen burn-off.

3) Corona:-

It is the sun's outermost atmospheric layer. It appears as white streams of gas that travels outward into space. Solar flares and solar winds occur from corona.

b) What is a tsunami? How ...?

- Tsunami:-

Tsunami is strong set of waves of water that travel towards land opposite to their source of generation. Tsunamis are generally created because of earthquakes in the ocean.

How are Tsunamis generated:-

Tsunamis are generated due to earthquakes, the oceanic (tectonic) plates move causing earthquake which shakes the above resting water. Water travels in all the directions outwards from the source, same as how seismic energy travels away from the epicentre. Secondly, a tsunami can be generated by underwater landslide, there

is land beneath the water, in certain cases there is a landslide in the ocean causing water to travel due to the disturbance.

Thirdly, a volcanic eruption can cause tsunami, as the eruption and the lava causes water to moving leading to waves in water.

Recent Tsunamis:-

- 1) Tonga Tsunami, which occurred in January 2022 due to volcanic eruption.
- 2) 2011 Tohoku earthquake which also led to a tsunami.
- 3) One of the deadliest tsunami was of Indian ocean tsunami in 2004. An earthquake of 9.2-9.3 magnitude generated this tsunami.
- c) Discuss environmental pollution.?

- Environmental pollution:-

Environmental pollution includes any pollutant that disturbs the natural composition of the environment. It can be in any type of pollutant including solid, liquid or gaseous pollutant.

i.e. Solid waste including industrial and domestic waste, Toxic water

of industries and pollutants emitted by all anthropogenic activities.

• Harmful effects of environmental pollution:-

- 1) Disturbs the ecosystem
- 2) Loss of habitat for animals, deforestation
- 3) Health issues for humans i.e. Breathing issues, lungs problems etc.
- 4) Global warming & climate change
- 5) Resource exhaustion - Fresh water sources contaminated, loss forests and usage of non-renewable resources.

• Measures to curb environmental pollution:-

- 1) Shift towards usage of clean energy.
- 2) Sustainable use of natural resources
- 3) Re-forestation
- 4) Control carbon emissions
- 5) Waste management.

d) What is wireless communication?

- Wireless communication:-

It is the transmission of information through wireless means. The use of cables, wires

or any other physical mean is redundant in this communication. It includes GPS, phones, Internet or Wifi services, Bluetooth etc.

Working of Satellite:-

Satellite works on wireless communication. A satellite is in space and its responder devices are on earth, both of these devices connect to each other via sending signals. It makes communication, location identification etc easier. Signals are electro-magnetic waves that transfer the data from one device to another.

Question:- 5

Differentiate between a eukaryotic?

Eukaryotic Cells	Prokaryotic Cells
1) Have well defined nucleus	• Lack nucleus
2) Contain cell-membrane bound organelles.	• Lack cell-membrane bounded organelles.
3) Generally larger in size bcs every organelle is fully developed.	• Smaller in size
4) DNA is organised in chromosomes.	• Circular or non-chromosomal DNA.

5) i.e Animal, fungi or plants cells • Bacteria

b) What is global warming? ...?

- Global Warming:-

Rise of global temperatures due to human activities which further causes climate change.

The process of global warming initiated after industrialisation due to excessive fossil fuel burning, causing emission of more green house gases (GHG). GHG causes more heat to be trapped in the earth atmosphere causing it to warm.

- Kyoto Protocol:-

An International agreement or treaty that was ^{adopted} done in 1997. It came into force in 2005, the main target of this protocol was to reduce the green house gas emissions. For implementing this target, the protocol settled binding targets, and punishments for those who could not meet the target. This was for the European Union and industrialized countries. This protocol was adopted under United nations

framework convention on climate change (UNFCCC).

c) Write a detailed note on GIS?

- Geographic Information System:-

GIS stands for geographic information system. It is a computer system that captures, stores, analyses and displays data related to locations on earth.

- It helps in mapping, & finding locations.

- It is used in many other system to locate and identify areas. GIS is used for risk mapping in calamity vulnerable areas.

- Also helps in education, agriculture and in other fields.

d) Briefly describe anti-oxidants?

- Anti-oxidants:-

- Anti-oxidants are the compounds that prevent oxidation. Oxidation is a chemical reaction that can create free radicals.

- Used in industrial products to extend their shelf life; polymers, lubricants.

Date: _____

- Help prevent body from damages ; disease prevention , brain diseases prevention -
- Used in food to prevent it from deterioration.
- Natural preservatives ; vitamic & E, F.

