

Q.2. (a) Differentiate b/w star & planet. What is the magnitude of a star & how the colour of star is correlated with their temp?

~~Ans: - star & planet~~ Difference b/w star & planet: - A star is a body that possesses a light that causes it to reflect the light independently. On the other hand, a planet is simply a fixed celestial body with its own orbit & spins on its own axis, yet reflects the light from an external source.

• Magnitude of a star: -

- A magnitude of a star is _____

Correlation b/w colour of star with their temp:

A star's colour provides a direct measurement of its surface temp; the hottest stars shine blue-white,

6 - "Semiconductors are the brains of Modern Electronics". Explain in detail what this quotation means.

Semiconductors, sometimes referred to as integrated circuits or microchips, are made from pure elements, typically silicon/germanium, or compounds such as gallium arsenide. In a process called doping, small amounts of impurities are added to these pure elements, causing large scale changes in the conductivity of the material.

Due to their role in the fabrication of modern electronic devices, semiconductors are an important part of our life. Imagine life without electronic devices. There would be no smartphones, radios, TVs, computers, video games, or advanced medical diagnostic equipment.

C - Briefly describe the most popular & accepted theory of about the origin of the universe.

The most popular & accepted theory of about the origin of the universe is "Big Bang Theory". The theory says that all matter & energy in the universe came from a condensed hot mass that exploded & expanded in all directions.

D - What are the advantages & limitations of renewable energy resources? Briefly explain the prospects of non-conventional energy resources in India.

— Advantages of renewable energy -

A - Less global warming.

B - Stable energy prices.

C - Reliability & resilience.

D - Improved public health.

— Limitation of renewable energy -

A - Renewable Energy is not available round the clock.

R - The efficiency is low

C - Renewable energy sites require a lot of space

D - The initial cost is high

— Prospects of non-conventional energy resources in Pak —

The future of non-conventional energy is bright in Pakistan. Pakistan has many avenues to be explored to develop energy resources. It has deserts for solar cell, 1046 km coastal areas for wind energy & the last but not the least is biotechnology.