

GENERAL SCIENCE AND ABILITY

Q: Differentiate between the following:

(i) Microscope and Telescope

Microscope

Telescope

- It is used for observing distant ^{and} magnifying images of tiny objects.
 - In this case, the object is placed within the focal length of convex lens.
 - It produces a larger version of the actual image.
- It is used for observing distant images of heavenly bodies i.e. stars and planets.
 - In this case, the object is placed beyond the focal length of objective lens and has small aperture.
 - It produces a smaller version of the actual image.

Add atleast 5 points in a difference qs in GSA

ii) **Antibodies**

Antibiotics

- They are effective against bacteria, viruses, or other chemicals.
 - Antibodies protect the body against
- They are effective against bacteria only.
 - They kill and inhibit the growth and

diseases.

development of bacteria.

- They are produced by. These are the immune system in drugs that inhibit response to foreign growth of substances. bacteria.

iii) Battery

Cell

- A combination of two or more cells makes a battery.
- They have larger and higher capacity.
- It stores electrical energy and can be recharged.
- A cell is a unit of positive and negative electrodes.
- They have smaller and lower capacity.
- It converts chemical energy into electrical energy.

iv) Isotopes

Isomers

- Isotopes are different atoms of the same element.
- Isomers are different compounds with the same molecular formula.
- They differ from each other due to the number of neutrons.
- They differ from each other due to arrangement of atoms.

- Isotopes of a single element have the same chemical behaviour, but the physical properties may differ.
- Isomers with the same chemical formula differ in both chemical and physical properties.

v) Sedimentary Rocks

- They are formed by sediments derived and deposited by various agents.
- They are non-crystalline rocks.
- They contain fossils e.g. coal, oil etc. e.g. Chalk, rock salt

Metamorphic Rocks

- They are formed when igneous and sedimentary rocks are subjected to high temperature and pressure.
- They are mostly crystalline in nature.
- Fossils do not survive in these rocks. e.g. slate, quartz

(vi) Insulin

- It is a hormone secreted by beta cells of pancreas.

Glucagon

- It is a hormone secreted by alpha cells of the pancreas.

- It is secreted in response to high blood sugar level.
- It is secreted in response to low blood sugar level.
- It makes muscle and blood cells and fat cells to take up glucose in the form of blood glucose.
- It functions to cause the liver to release stored glucose from its cells into the blood.

vii) Renewable sources of energy

- These are resources which get replenished and are restored in nature.

- They are also called inexhaustible resources.

- They are environment-friendly.
- e.g: air, wind, solar water.

Non-Renewable sources of energy

- These sources do not get replenished and are not restored in nature.

- They are also called exhaustible resources.

- They cause pollution.
- e.g: minerals, fossil fuels.