

GSA - Test 2

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Q no 3

d)

GIS

GIS stands for geographic information system. This helps in collecting, analyzing and managing the earth's surface data with the help of computers, as it is a computerized system.

Functions:

GIS is used for geographic management purpose. It gathers data of earth through the images from satellite and analyzes it. It is used for disaster management, dam building and urbanization.

Importance:

GIS is helpful tool in taking informed decisions. GIS helped modern technologies in resolving environmental issues.

GPS

GPS stands for global positioning system. Through the help of satellites it provides accurate locations and positions of desired places and people.

Functions:

The whole mapping system is the by product of GPS. The maps in phones and vehicles guide and lead to destinations by the help of GPS, without it all the online taxi services are unable to function.

Importance:

GPS has merged itself into the functioning of world trade, transport and strategic system. It has become integral part of policing, transportation and defence system of the world.

c)

Eutrophication

This is a biological process of nature. The standing water resources like ponds, tanks and pools get this process. The intensification of minerals and resources into water cause this eutrophication which results into green colored material namely algae.

Causes:

This algae is form when a water resource remain stagnant on an ideal place then the solar energy and environment produce of help in production of minerals in it. Those mineral later turn into a substance of green colour which is commonly known as algae.

Effects:

Algae or eutrophication can cause many negative effects to the humans, animals and living under water.

Human:

This affects human body externally by producing many forms of skin allergies which can be itchy and harmful.

If mistakenly human drink the eutrophic water then it can cause stomach issues, digestion issues and vomiting.

Animals:

Animals body can resist its external effects but they also get affected by it internally if drank this water.

Under water living:

This eutrophication makes life of the living such as - fish and other underwater organisms also - worse and non-livable place for them.

(b)

Introduction:

Malaria and dengue both are mosquito transmitted diseases. Both are differently effected diseases and both posses different issues and symptoms.

• Malaria:

Malaria emerges on human body when a female mosquito bites non-effected human and it already bitten someone containing the malaria virus.

Symptoms:

① High temperature

② Shivering

③ Sweating

④ Fatigue

⑤ Muscle and joint pain.

• Dengue:

Dengue is also caused by mosquito and mainly arises where the reservoirs of clean water are present. It is a viral disease that

can easily spread by mosquitoes.

Symptoms:

- ① High fever
- ② Headache
- ③ Vomiting
- ④ Reduced platelets in blood

Preventive measures

Keeping oneself safe from mosquito bite is the only preventive measure of both these viral diseases.

- ① Using loose clothes
- ② Insect repellent
- ③ Draining the excess water present in washroom of kitchen
- ④ Using mosquito nets.

Conclusion:

Both of these diseases can be dangerous for human health, keeping one safe from it by using preventive measures can result into betterness & wellbeing.

(a)

Human Eye.

It is a small organ which is very important - sensory for human life. It helps one to see or visualize.

Working of Human Eye:

Human eye is a complex organ and functions. It gets light in it and reflects it back by producing an image for the brain.

Sclera:

The outermost layer of an eye which tends to be transparent is called sclera.

Cornea:

The front part of sclera is called cornea, light enters into eye through cornea.

Iris:

The dark part - behind cornea

and visually present in center of eye of seen through retina eye is called Iris.

Pupils

A small opening in center of iris is called pupil through which light passes through and it is responsible for controlling the amount of light.

lens

Behind pupil the lens tends to change shape of pupil and focus on light.

Retina:

This is backside part of an eye which converts image into electric impulses.

Optic Nerves:

two types of nerves cones and rods help to transmit those impulses to the brain.

Conclusion:

This was the whole function of an eye from light to image to

Q No 2:

(d)

Remote Sensing

This is the process of measuring and monitoring areas through the help of reflected radiations. Mostly it is done by the cameras sensors installed in satellite and aircrafts.

Principles:

Remote Sensing is used for environment management such as monitoring earth's movement, temperature and weather. It is also used for water management, mining and disaster management by measuring the temperature and altitude of water and oceans.

Applications:

- 1) Weather forecast
- 2) Disaster risk management
- 3) Forest fire control
- 4) Floods prevention
- 5) Urban planning.

(c)

Energy System:

Energy is the basic need of functioning today's world. From the time of industrialization and increase in transportation energy has become most prior requirement of humans. Mainly energy is being retained through the burning of fossil fuels.

Need of transition:

A significant change has been noticed in the functioning of the world. The global warming, environment pollution and rise in natural disasters are some of the changes.

Moleana and Sherwood discovered the depletion of ozone layer in Antarctic region in 1985. Scientists from England

The temperature rise making life difficult. Earth's avg temp risen by 1.5°C from 1850 till now.

More energy is being required to cover more amount of people. World population in 1960's was 3 billion.

in 2000 it became 6 billion and in 2022 it was 8 billion.

The rapid growth making it necessary to change the energy system.

Renewable energy is solution:

Energy sector is contribution 35% of carbon emission (IPCC)

This immense number of contribution is due to non-renewable energy use. To combat this renewable energy is best solution to minimize environmental cost.

Solar Energy:

Solar energy is the best source of energy if utilized properly. It contributes zero carbon emission.

Wind Energy:

Wind turbines are another good contributor for energy sector.

Hydro power:

Dams can be the best contributors of energy if built properly in desired locations and they also contribute in minimization of water loss.