

GSA - Test 1

QUESTION 3:-

b) Balanced diet:-

A diet that has an appropriate level of nutrients available in it.

A diet thus have both organic and inorganic nutrients essential for the normal functioning of the human body. A diet that contains proteins, vitamins, carbohydrates, fats, H_2O and minerals in balanced amount needed for daily functioning of human body.

Components:

A balanced diet has both the required nutrients i.e

- ① Organic Nutrients : Proteins, Vitamins, fats, oil, carbohydrates
- ② Inorganic nutrients:- Minerals and water.

Merits of Balanced Diet:

The human body requires different amount and levels of nutrients to run smoothly on a daily basis. A balanced diet is mandatory for a healthy body. It has many advantages which are as follows

- ① A source of energy for daily activities to be performed
- ② Helps in the formation of nucleic acid (DNA) of the body
- ③ Helps in respiration of the body
- ④ Helps in the development of cells in the body
- ⑤ Helps in strengthening bones, teeth and muscles
- ⑥ Protects the skin from damages and other infections
- ⑦ Helps in the formation of Haemoglobin

and blood in the body

(8) Improves eyesight and protect from night blindness

(9) Safeguards human body falling in infections and from diseases.

(10) Helps in wounds healing of wounds quickly and in blood clotting.

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Balanced Diet keeps the human body healthy and active and is essential for the smooth functioning of the body.

D) Carbohydrates:

Carbohydrates are an essential organic nutrient (present in) for the human body and is a mandatory part of a balanced diet. It is made up of carbon, hydrogen and oxygen.

The amount of hydrogen and oxygen is the same as in H_2O

Composition:

The composition of carbohydrates is $C_xH_{2y}O_z$. The basic unit of carbohydrates is glucose.

Types:

Carbohydrates have the following three types.

① Monosaccharides:

Monosaccharides are the basic unit of carbohydrates.

Example:

Glucose, fructose, galactose.

② ^{Di} Polysaccharides:

The combination of two molecules of carbohydrates is called disaccharide.

The combination takes place due to condensation process.

Examples:

Lactose, Sucrose, Maltose.

(3) Polysaccharides.

They are the combination of two or more monosaccharides to the condensation of molecules. They are also part of animal cell and plant cell.

Example:

Cellulose, Starch

Benefits of Carbohydrates:

There are a number of benefits that human body receive due to the consumption of carbohydrates. Some of them are as follows

- (1) It is a source of energy for human body
- (2) It is an essential part of nucleic acid (DNA)
- (3) It is a secondary component of

formation of lubricants

(3) It is necessary for cell respiration.

(c) Disaster Risk Management of Pakistan

Disaster Risk management is a planned mechanism to deal with incoming or ongoing disasters that take place in an area. It requires identification of an incoming disaster, planning for dealing with it, mitigation, emergency, recovery. In Pakistan, there is a lack of well-defined DRM. There are a number of weaknesses present in the DRM of Pakistan which are as follows.

1) Poor Forecasting:

Forecasting is the very first

and essential element of DRM. Pakistan lacks the facilities and the required skills to forecast or prevent disasters or natural catastrophe.

2) Post Planning:

Once the disaster has been identified, it is important to have done mitigation planning and to prevent destruction. Pakistan has never pre-planned to cater to an upcoming natural disaster and leaves everything to the next phase of emergency.

3) Delays in Emergency Implementation.

Pakistan delays in implementing or applying emergency in the disaster-stricken areas. The emergencies are usually announced when the disaster has hit those areas. So, no

preventive measures are taken to prevent loss of infrastructure and human life.

4) Slow Evacuations:

The evacuations take place very slowly or do not take place at all. It is either due to poor planning and ineffective strategy by the government or due to people's refusal to leave their lands and homes. This leads to drastic loss of life, human life and cattle.

5) Poor Measures of Recovery:

Pakistan has the poorest measures of recovery after a natural disaster takes place. A few humanitarian aids are granted to these areas both domestically and internationally. After a few days,

the incident is forgotten and no solid recovery steps are taken to uplift the areas and people badly damaged in the disasters. The steps taken by government are ineffective and not enough to fully recover the damage.

All of the above all weaknesses in the DRM of Pakistan.

(a) Vaccines:

Vaccines are compounds or material given to humans to prevent from a certain disease or infection. It is the intake of certain organic compounds that either build immunity in the body or stop the disease or infections to impact the human body.

Small Pox Vaccine:

The vaccine of small pox was the very vaccine in the history of human beings.

Composition:

Vaccines are antibodies that are given to human to resist the incoming germs by either building ~~anti~~ antibodies against it or by destroying the incoming disease infectious.

Examples:

The vaccine of corona virus have been the most recent creation of vaccines that were taken by ~~all~~ the everyone around the world to prevent oneself from the deadly covid '19.

QUESTION 2

(a) Renewable Source of Energy and its importance :-

The renewable energy is of great importance in the current world. It is an energy that can be produced over and over again due to the presence of renewable resources of production.

"The renewable resources of energy are the resources that can be renewed with time and will not deplete away"

Importance ^{w.r.t} to Environment

The renewable sources of energy are highly important for human beings with respect to environment. Some of the reasons

are as follows

- ① These energy sources will not deplete away like the non-renewable resources of energy
- ② They do not harm the environment like the non-renewable resources
- ③ They do not produce fuel and excessive energy that harms the environment
- ④ They keep the environment clean for both humans and wildlife
- ⑤ They do not contaminate water and does not prove injurious for human intake and for marine life
- ⑥ They do not cause green house effect and ozone depletion
- ⑦ It does not produce chemical components that prove deadly to human beings and wildlife
- ⑧ They do not pollute the environment

by the release of deadly toxic
and fumes in the air that
lead to acid rain and
health concerns.

Thus renewable resources of
energy production prove beneficial
and very less harmful to
the environment as compared to
the non-renewable resources of
energy like coal, oil, natural gas,
etc.

Solar Energy

Solar energy is the most
strong resource of renewable energy
production. The solar heat can
be used to run turbines and
produce electricity through dams.
It can be used to produce
electricity in homes through solar
panels.

The fission reactions taking place in Sun produce tremendous amount of heat and energy that can be consumed to produce energy for human utilization.

Great Potential.

It is the most useful and form of energy consumption. Though it's potential has not been utilized yet, but it great potential to create tremendous amount of renewable energy.

(b) Rocks:

Rocks are objects present naturally on the surface of Earth.

They are either formed due to sediments or due to smaller fragments of sand and rocks.

Rocks are formed due to extreme pressure, heat and natural combination of sediments.

Types:

Rocks are of three types which are as follows:

- 1) Sedimentary Rocks
- 2) Igneous Rocks
- 3) Metamorphic Rocks.

All of these rocks are formed due to the condensation of molten lava released from volcanoes or due to the ~~and~~ ~~can~~ solidification of magma inside the earth's crust. These rocks are formed under the earth surface, on it or under sea in the ocean beds.

Rock Cycle:

The rock cycle is simple and easy to understand. It goes from the solidification of magma inside

Earth's crust to the cooling off of the volcanic lava. Many a times the rocks are formed on sea beds due to formation of sediments in sea bed.

d) Water-Soluble Vitamins:

The vitamins that are easily soluble in water are called water-soluble vitamins. These include

- 1) Vitamin B
- 2) Vitamin C

Vitamin B:

Vitamin B are essential for the smooth functioning of our body as it helps in the production of cells. It helps in cell respiration and is essential for blood clotting and healing of wounds.

Causes: The deficiency of vitamin B

Causes anemia that is the lack of blood in the human body.

Sources: Its sources are meat, milk, vegetables.

Vitamin C:

Vitamin C is also essential for ~~the~~ human body. It helps in maintaining healthy skin, teeth, bones and muscles. It is important for development of bones and muscles in the body.

Causes: Deficiency of vitamin C causes bleeding gums, weakened bones and muscles, and infections on skin.

Sources: Vitamin C can be found in citrus fruits and vegetables.
