

National Officers Academy

SADILA

Roll no: 7844

General Science & Ability

Test #1

LMS: 33192

15th Jan, 2024

Q. No 1

A - Define Vaccine & Antibiotics.
Give differences between them.

Answer

Vaccine

The administrations of killed or half killed micro-organisms into the body to protect it against the specific disease by stimulating the formation of antibodies are called vaccines.

Antibiotics

The medicines that fight infections caused by bacteria in humans and animals are called antibiotics. These are the substances that inhibit the growth of bacteria or kill it.

• Vaccine is a prevention measure prior to infection.

• Vaccine is able to control disease caused by bacterial and viral pathogen.

• Vaccine is long-lasting measure against infection.

• Antibiotic is a treatment after infection.

• Antibiotic is not able to treat any viral disease but to lessen the infection.

• Antibiotic is not a long-lasting measure against infection.

B - Differentiate between cyclones, Tsunami and typhoons.

Answers

Cyclones

Tsunami

Typhoons

C-Write a short note on Galaxy?

Answer

~~## ## ##~~

"Galaxy is the fundamental unit of the universe. It is composed of hundreds of thousands of stars with gas and dust." Collection of galaxies is called cluster and arm of galaxies are called galactic arms. There are three types of galaxies, i.e; (Elliptical, Spiral and Irregular galaxies)

Our galaxy is spiral galaxy and the name of our galaxy is "Milky

Way" galaxy. Our galaxy contains about
200 ~~100~~ stars and galaxy's diameter
is 105 light years.

D- Explain DRM.

Answer

Q. No. 2

A. Differentiate between good fat and bad fat. Give examples.

Answer:

Good fat

• These are three types of good fat:

→ Monounsaturated fats

→ Polyunsaturated fats

→ Omega-3

• Raise good cholesterol

→ Lower bad cholesterol.

• Eat more olives, seeds, peanuts, beans, spinach, fatty fish, nuts and peanut oil to have good fats.

Bad fat

• These are two types of bad fats:

→ Trans fat

→ Saturated fats

• Raise bad cholesterol

→ Lower good cholesterol.

• Avoid bakery items, cookies, crackers, fried foods, fried chicken and fish and limit the butter, ice-cream and oils for it's loss.

8. Give 5 uses of each of the following:

Answers

Vitamin B-complex:

- Regulation of energy production.
- Lessen the stress
- Improvement of immune function.
- for skin health and wellness.
- for healthy digestive tract

and liver function

Vitamin E:

- Prevention of hair loss.
- Decrease the heart disease

risk

- Fights eczema, skin cancer, wrinkles and more

- Controls the cognitive decline by 36%.

- Lower the risk of hormonal imbalance.

Vitamin D:

- Strengthen the bones and teeth health.
- Combats the heart disease.
- Facilitation of ~~hem~~ hormone regulation and helps to improve moods.
- Protects against cancer.
- For tissue health and immune health.

Iron:

- to carry ~~to~~ oxygen in through blood.
- for regulation of body temperature
- strengthen the muscle activity.
- for brain development and functions.
- facilitates the thyroid function.

C- Explain food adulteration & give its types, effects and solutions.

Answers

The process in which original food nutritional value, texture, flavour of

food is damaged ^{or enhanced} and the food become adulterated. Mixing of substances with an other secretly is called adulteration.

For example, ~~It~~ As milk adulterants unhygienic water, soap powder, chalk powder or urea ^{are} ~~is~~ added in milk and it has harmful effects. This adulterated milk causes food poisoning, heart problems, vomiting and cancer.

Types:

* Intentional adulteration:

Adulteration process done intentionally is ~~the~~ intentional adulterations. This involves adding substance to change or maintain color, weight or size of food. For example milk adulterated by water to gain weight.

* Incidental adulteration:

Accidentally adulteration process, occurs due to oversight or neglect during food handling. This unintentionally adulteration can be

processed by any retailer/trader.

D- Explain any five food preservation methods.

Answer

Canning:

Process of preserving food by heating and sealing it in a container for storage is called canning. Canning foods includes jams, chutneys and dill pickles.

Pasteurization:

Process of preserving food in which packaged and unpacked food is treated with mild heat usually, less than 100°C to eliminate pathogens is called pasteurization.

Freezing:

Process of preserving food in which food is frozen to 0°C . Freezing stops the growth of microorganisms.

Frozen items we preserve in freezers by freezing methods.

Addition of chemicals

Process of preserving food by adding chemicals is another method of food preservation. Salt, sodium ~~nitrate~~ nitrite, spices, vinegar and alcohol ~~is~~ have been used as chemical to preserve food. ~~is~~

These chemicals stop or delay the growth of bacteria, spoilage and discolourization.
