

Q. No. 1(a) Answer:Definition Vaccine:

A method of stimulating resistance in the human body to specific disease causing micro organisms such as bacteria or viruses is called Vaccination.

Define Antibiotics:

Antibiotics are chemical compounds used to kill the growth of infectious organisms.

Differences between vaccine and Antibiotics:

Antibiotics	Vaccine
<ul style="list-style-type: none"> • These are the medicines which kill microorganism. 	<ul style="list-style-type: none"> • These are weakend microorganism which can cause disease but not upto very extreme level due to weakening.
<ul style="list-style-type: none"> • These are prescribed by the doctor after any disease. 	

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| <ul style="list-style-type: none">• This provides protection for a short period of time.• The first antibiotic was discovered by Dr. Alexander Fleming• e.g.: Streptomycin, Erythromycin | <ul style="list-style-type: none">• These are given as a prior preparation in order to make antibodies in the body for certain diseases.• This provides protection for a long period of time because they produce antibodies which have memory within them.• Concept of vaccination was introduced by Dr. Edward Jenner• e.g.: Polio drops, measles vaccine. |
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(B)

Answer:

Cyclones

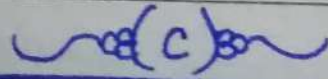
- cyclones refer to powerful rotation storm systems in the Indian Ocean and South Pacific.
- cyclones and typhoons are formed due to warm ocean waters and atmospheric conditions developing into intense low pressure systems.
- cyclones are typically named by the meteorological agencies of the affected countries.

Typhoons:

- Typhoons are the same phenomena like cyclones but occur in the ~~Indian Ocean~~ Northwest Pacific.
- cyclones and typhoons are atmospheric phenomena characterized by strong winds and heavy rainfall, causing extensive damage on land.
- Typhoons are named by the Japan Meteorological Agency.

Tsunamis:

- Tsunamis on the other hand are oceanic seismic sea waves triggered by underwater earthquakes or volcanic eruptions.
- Tsunamis are caused by underwater geological disturbance, such as earthquakes, landslides or volcanic activity.



Answer:

Def:

Galaxy is a large gravitation^{ally} bound system of stars, interstellar dust, nebulae, stellar remnants usually with a central supermassive black hole.

Types:

There are three types of galaxy.

- ① spiral
- ② elliptical
- ③ irregular

Characteristics of Galaxies:

- Galaxies range in size from dwarfs with just a few thousand stars to giants with one hundred trillion stars each orbiting their galaxy's own center of mass.
- Many galaxies are thought to have black holes at their active centers.
- Milky way and Andromeda are the examples of galaxy

Q. No. 2

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Answer:

Good Fats

(unsaturated Fats)

- Lowers bad cholesterol
- Lowers heart disease risk
- Provides essential fats your body needs

Bad Fats

(Saturated Fats)

- Increase bad cholesterol
- increases heart disease
- Negatively affect Brain function

e.g: salmon, olive oil

e.g: Red meat, Palm oil, Fried & Frozen Food

(B)

Answers:

1: Vitamin B-complex:

- (i) Help in proper nervous system functions
- (ii) Improve skin, hair, nails
- (iii) produce red blood cell
- (iv) Improve liver function
- (v) Helps in cell growth and development

2- Vitamin E:

- (i) Improves vision
- (ii) Balances hormones
- (iii) Improves effects of medical treatment
- (iv) Improves physical endurance and muscle strength
- (v) Balances cholesterol

3- Vitamin D:

- (i) Fights infections, such as colds and flu
- (ii) Naturally boosts the immune system
- (iii) Increase energy level
- (iv) Improves bone health
- (v) Aids in calcium absorption

4- Iron:

- (i) Iron helps to transport oxygen around the body
- (ii) Iron plays role in energy metabolism.
- (iii) may improve sports performance
- (iv) prevents anemia
- (v) Helps regulate body temperature.

Q. Drying

Answer:

Drying:

Drying is the oldest method. It is done by sun drying or Air drying. It is removal of water from the food.

Freezing and cooling:

Freezing and cooling are the best method of food preservation. Help in stopping the growth of Bacteria present in raw material.

Salting and Pickling:

Salting stops bacterial growth and it is oldest method. It is used to preserve fishes, meats etc.

Canning:

Canning means to keep food in containers. Canning can be done to meats, fruits etc.

Sugar Syrup:

Sugar preservation method is mainly used for preserving fruits for a long time. Sugar syrup stops the microbial growth.