

Q. No. 1

18.5/40

Discuss in during discussion class.

(A)

## VACCINE

A vaccine is defined as any substance which is used to stimulate the production of antibodies, in turn providing immunity against one or a few disease. The vaccine is actually an "attenuated dead germ." The procedure of development and inoculation of the vaccine in the body is called vaccine.

### For Example

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Sinopharm (Covid vaccine),  
Hepatitis A and C vaccine, Influenza vaccine.

## ANTIBIOTICS

It is a chemical substance produced by micro-organisms that inhibits the growth or kills other micro-organism. It is used to fight infections in humans.

or animals.

For Example

Ciprofloxacin, Sulfonamides,  
Erythromycin.

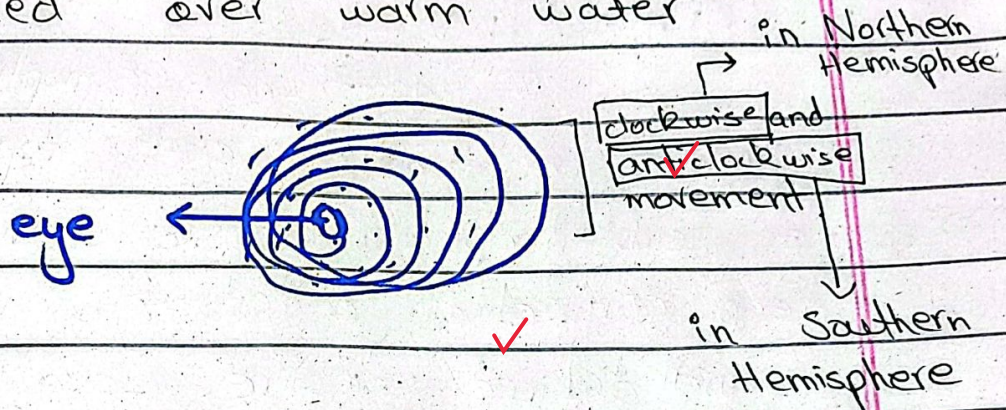
### DIFFERENCE B/W

VACCINE	ANTIBIOTIC
These are weakened micro-organisms which are weakened at extreme level so that can't cause disease	These are medicines which kill micro-organisms
These are given as prior preparation in order to make anti-bodies in the body for certain disease.	These are prescribed by the doctor after any infection or disease.
The first vaccine <sup>antibiotic</sup> was <del>discovered</del> by Dr. Edward Jenner.	The first antibiotic was discovered by Dr. Alexander Fleming.
Example: Polio drops	Example: Streptomycin

(B)

## CYCLOONE

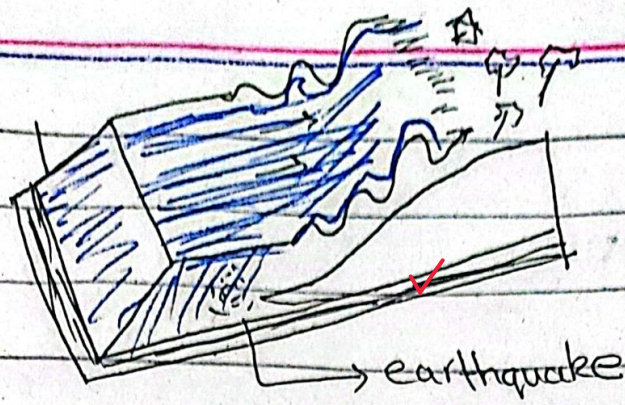
It is a tropical storm with winds blowing in large spiral around a relatively calm center known as 'eye'. It is formed over warm water



Wether,

## TSUNAMI

A series of waves caused by an earthquake, underwater volcanic eruption, landslide or other abrupt disturbance is called tsunami. Wave move outward in all directions at speed upto 500mph and gain height when they approach shallow water.



TSUNAMI ✓

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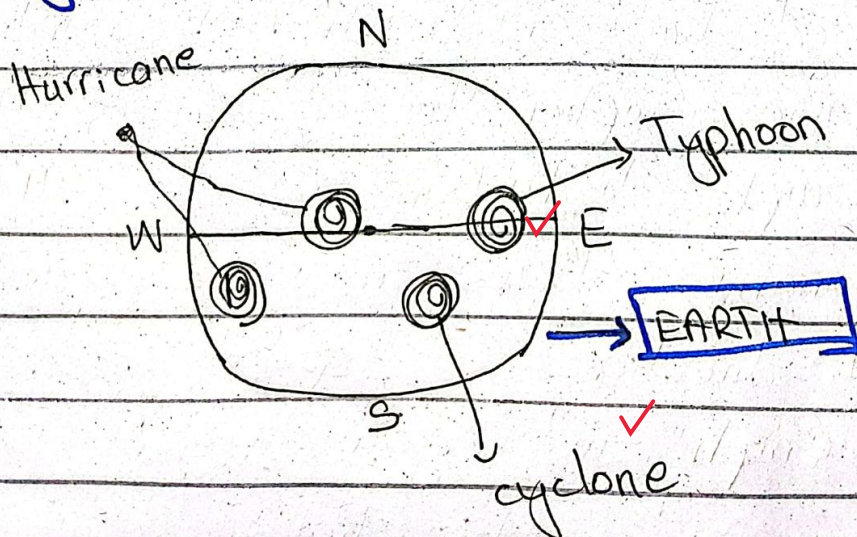
## TYPHOON:

A warm-core synoptic cyclone originating over tropical or sub-tropical waters with deep convection organized around a well-defined centre. Locally it is known as:

**Tropical Cyclone** ⇒ scientifically

**Hurricane** ⇒ in Spanish

**Typhoon** ⇒ in Chinese.

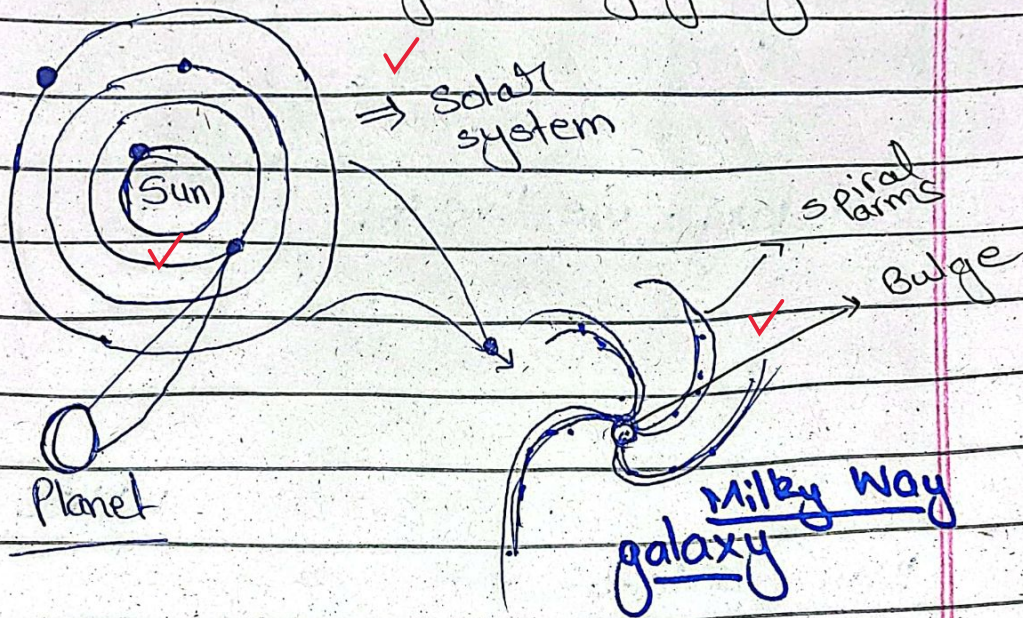


(C)

# GALAXY

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According to NASA,  
"A galaxy is a huge collection of gas, dust, and billions of stars and their solar systems, all held together by gravity"



There are billions of galaxies in the universe. They probably formed billions of years ago, soon after the universe began. The Sun, the Earth, and the other planets of the solar

system are the part of Milky Way Galaxy. Galaxies are differ from each other in shape, size, colour and composition.

## Types of galaxies

There are mainly three types of galaxies.

1. Elliptical galaxies
2. Spiral galaxies
3. Irregular galaxies

### Galaxy: we live in:

The galaxy over solar system belongs to is a Milky Way galaxy and it is a spiral galaxy. Milky Way galaxy has flattened shape and have a bulge in the centre. The bulge is composed of old stars surrounded by a disk of young stars and are arrange in spiral arms.

(D)

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## Disaster Risk Management (DRM)

According to the UNDRR,  
"Disaster Risk Management is the application of disaster risk reduction policies and mitigation strategies to prevent new disaster risk, reduce existing disaster risk and manage residual risk, contributing to the strengthening of resilience and reduction of disaster losses."

Disaster is as old as human history. Thus, human should be prepared to fight for. Disaster Risk Management is a process.

## Disaster Management Cycle.

Disaster management

cycle involves

- ① Mitigation
- ② Preparedness
- ③ Response
- ④ Recovery

## 1. Mitigation

It is the very first phase of DRM. It is a ~~sustained~~ action that reduces both short-term and long-term risks. It involves activities like scientific hazard analysis, vulnerability analysis, risk assessment, avoiding construction in high risk zones, etc.

## 2. Preparedness

Preparedness, the second phase of DRM, as defined by Global Development Research Centre, "is a set of steps that enhance the ability of communities and government to respond to a disaster." It involves maintenance of resource inventory, logistic planning etc.

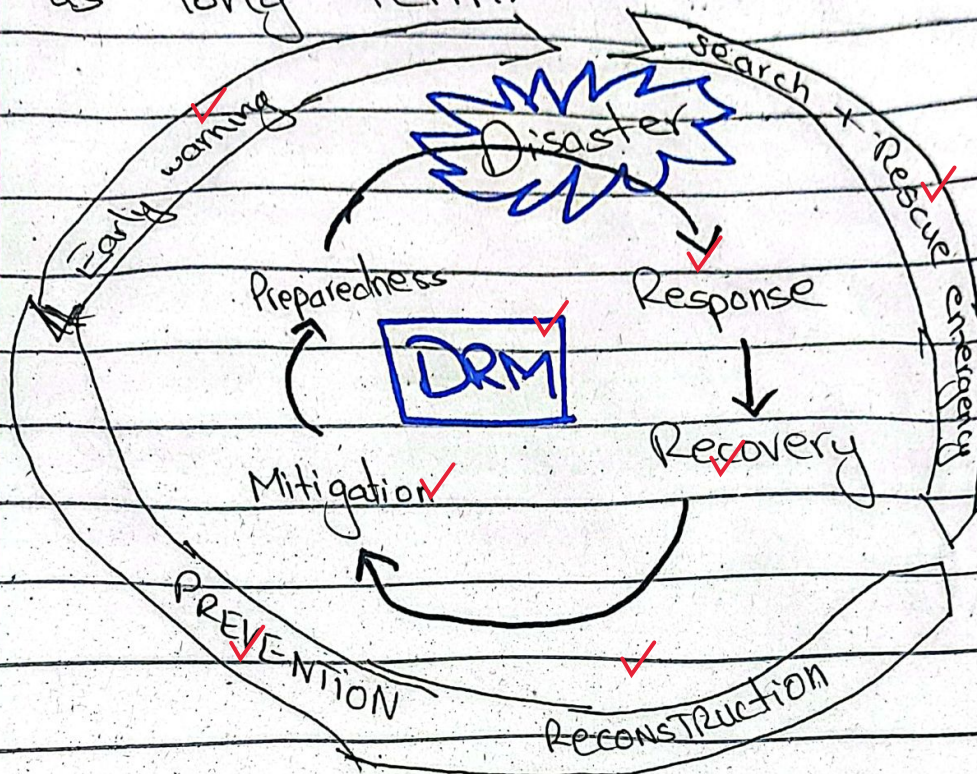
## 3. Response

It is the ~~the~~ action of responding to an emergency. It aims to provide immediate emergency support to a community to maintain health safety and morale until permanent solution.



#### 4. Recovery

Recovery, finally, is the process of returning to normal. It may be short-term as well as long term.



### DRM in PAKISTAN:

Pakistan has history of disaster. Pakistan has National Disaster Risk Management Authority (NDMA). But, unfortunately, due to in-sufficient funding and weak governing authorities it is just by name working.

# Q. No. 2

(A)

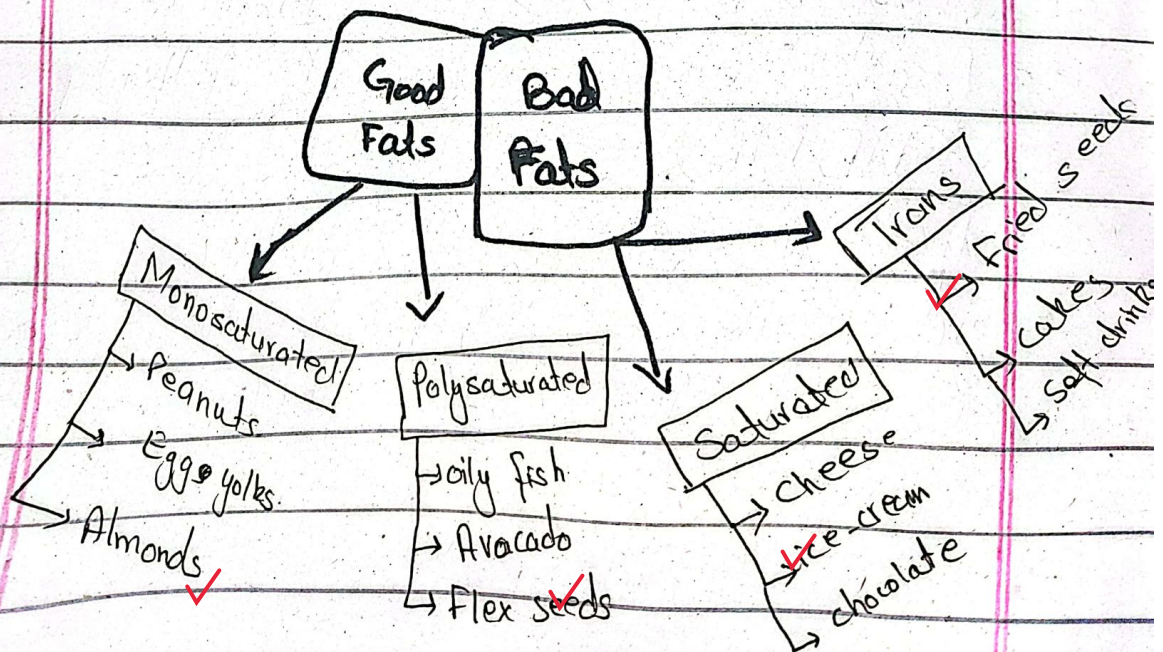
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## GOOD FATS

Good fats are naturally occurring and haven't been damaged ✓ by processing. Good fats include polyunsaturated and monounsaturated fats as well as Omega-3.

## BAD FATS

Bad fats includes industrial man-made trans fats. These fats includes saturated and ✓ trans fats.



## (B)

### (i) Uses of Vitamin B-complex:

1. Growth ✓ of red blood cells is dependent on it
2. It is used for proper functioning of brain
3. It ✓ helps digestion
4. It is necessary for proper nerve functioning ✓
5. It is good for eyesight

### (ii) Uses of Vitamin E

1. It is necessary for anti-inflammatory ✓ processes
2. It has anti-oxidant properties
3. It is used to fade acne scarring.
4. It ✓ repairs damaged hairs
5. It is used to improve cognitive functioning ✓

### (iii) Uses of Vitamin D

1. It is used to absorb calcium in the ✓ gut

2.- It is used to enable normal bone mineralization.

3.- It helps in proper hormonal functioning

4.- It is vital for proper bone development and growth.

5.- It regulates nervous functioning

## Uses of Iron

1.- It participates in a wide variety of metabolic processes.

2.- It is needed in oxygen transport in body.

3.- It is a mineral that a body needs for growth and development.

4.- Iron is used to make hemoglobin

5.- Iron is necessary for pregnancy and growth of baby.