

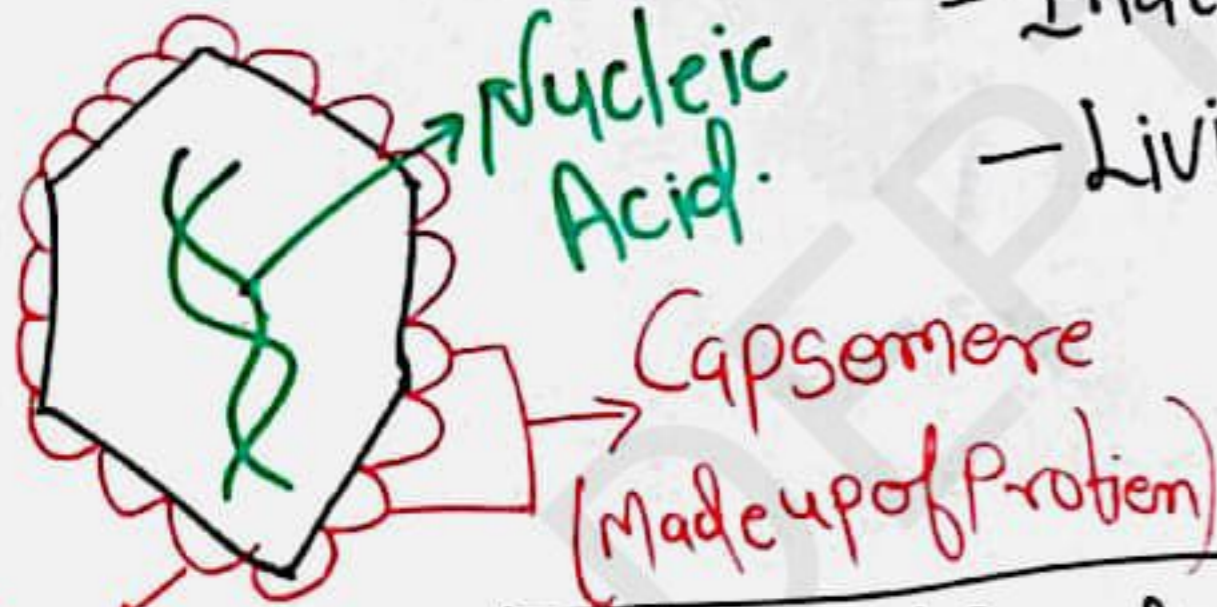
- Non-Cellular
- Belong from Parasite Family.

[DEPTH OF BIOLOGY]

# VIRUS.

- Inactive Form
- Living Cell में साथ (Active Form में साथ है)

- Smallest Infective agent.
- Seen by Ultra Microscope.



Class. (Based on Morphology)

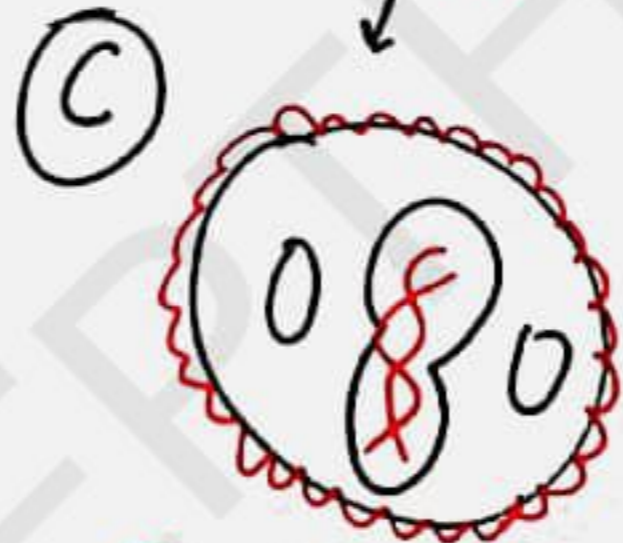
Helical, Icosahedral/sym., Complex sym.



Eg → Tobacco Mosaic Virus & Rabies Virus.

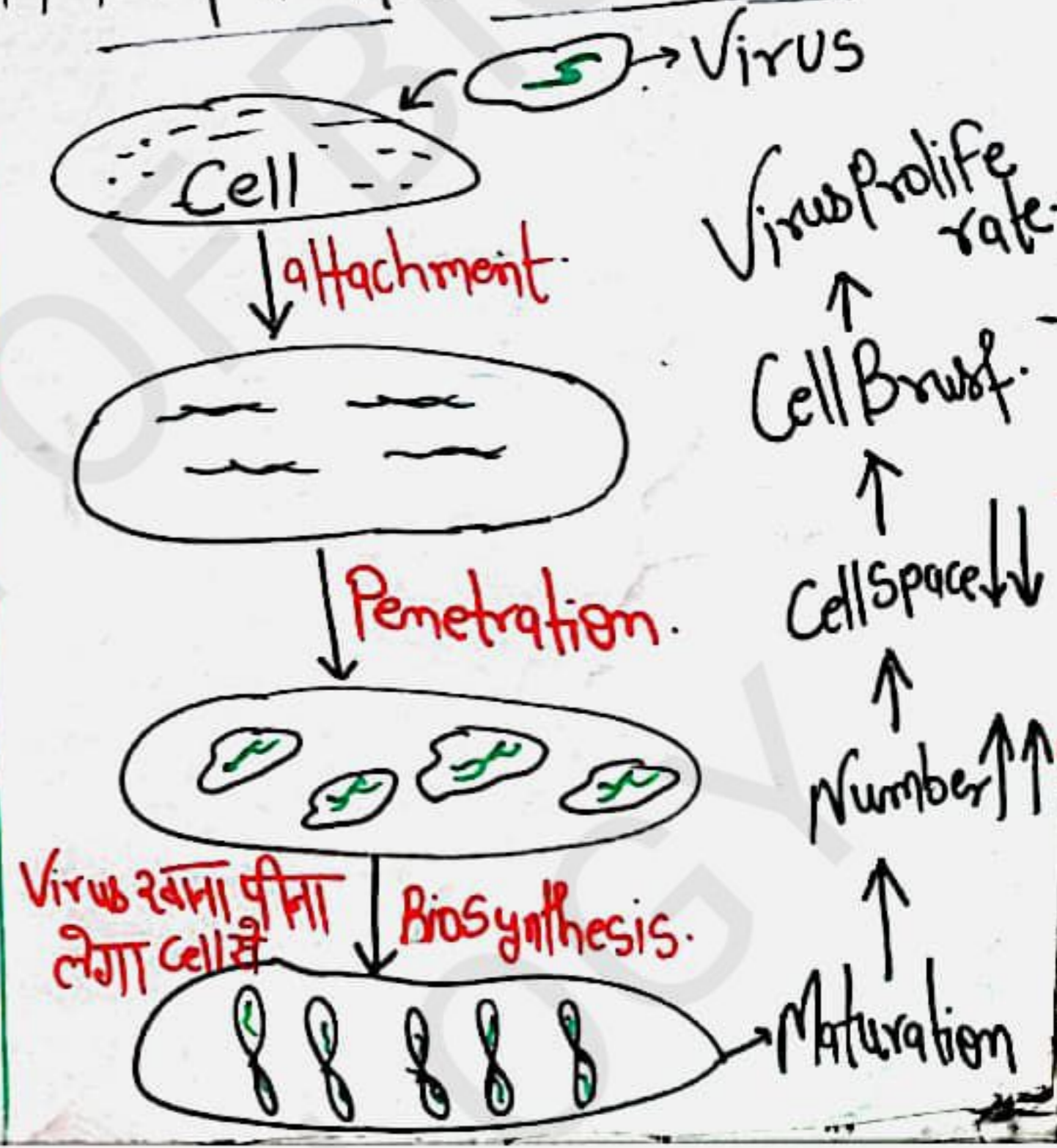


Eg → Polio Virus; Herpes Simplex Virus.



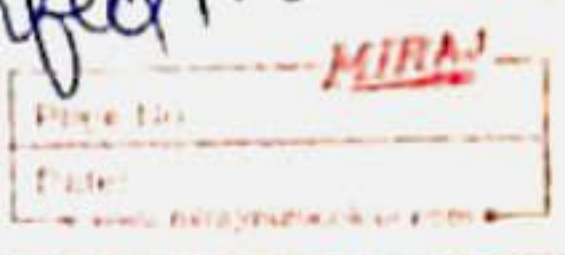
Eg → Bacteriophage.

## # Replication OF Virus ⇒

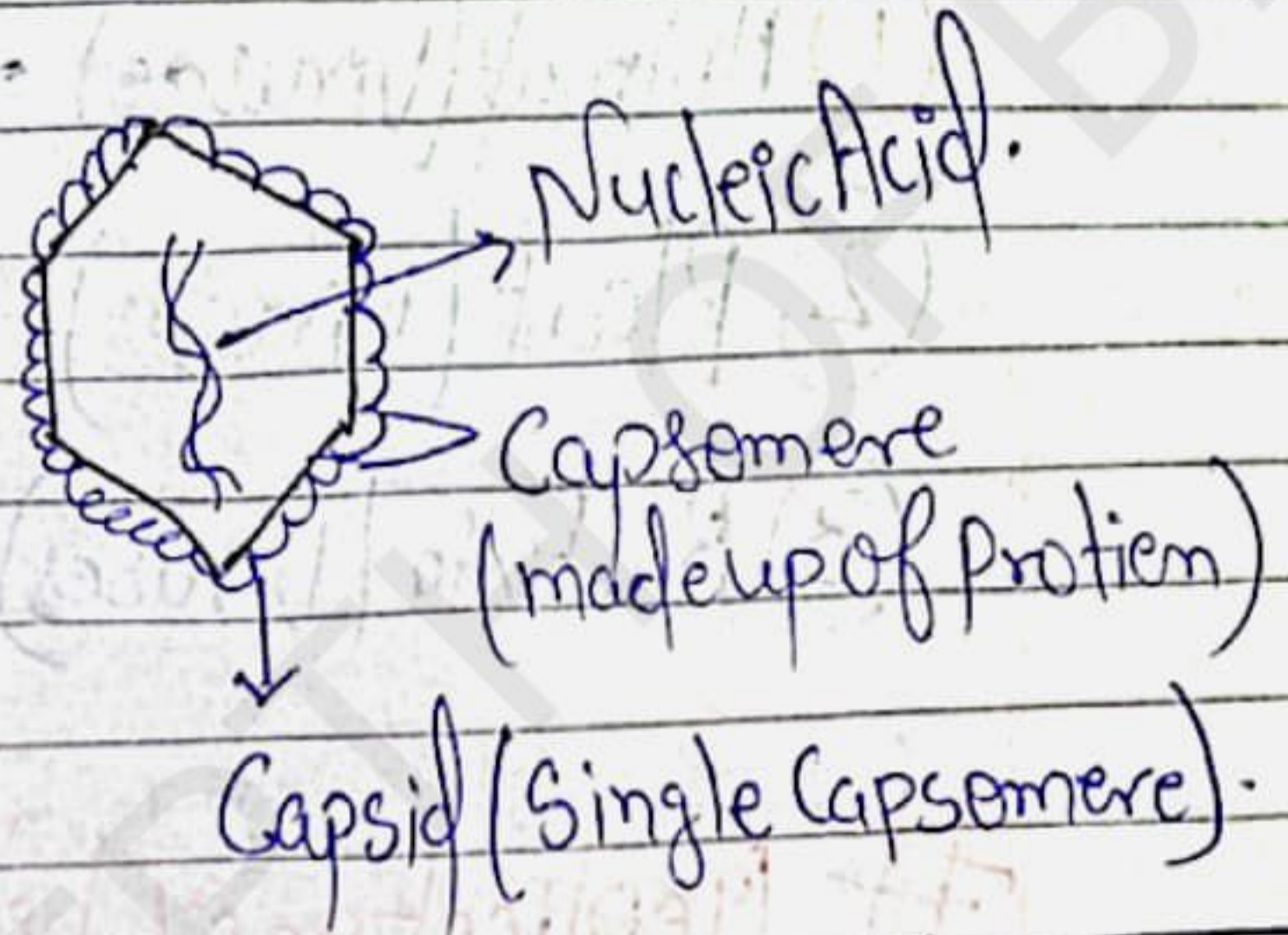


Virus → Smallest Infective Agent

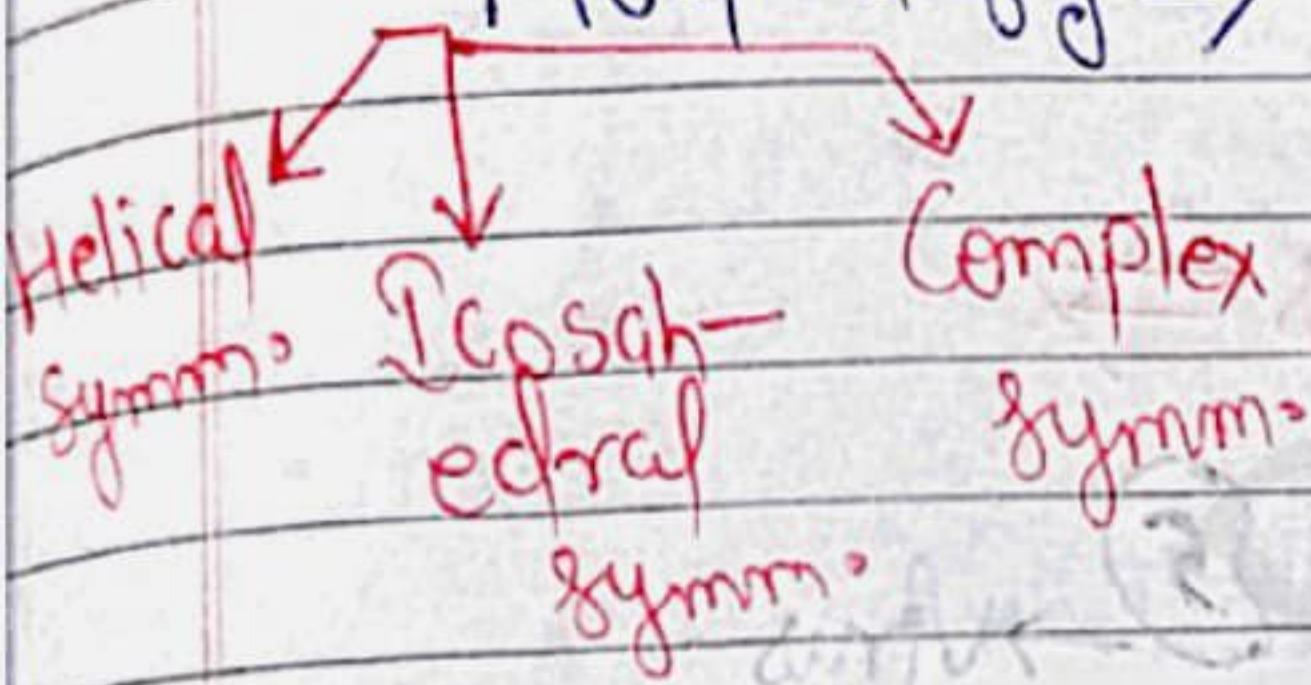
Seen by Ultra Microscope



# Struc. of Virus ⇒



Classification ~~is~~ Based on the Morphology ⇒

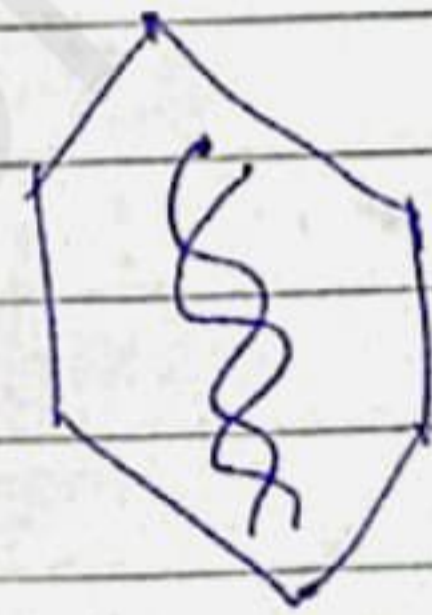


a) Helical Symm. → eg → Tobacco Mosaic & Virus.  
Rabies Virus.



b) Icosahedral Symm. ⇒

eg → Polio Virus, Herpes Simplex Virus



c) Complex Symmetry ⇒

eg → Bacteriophage.

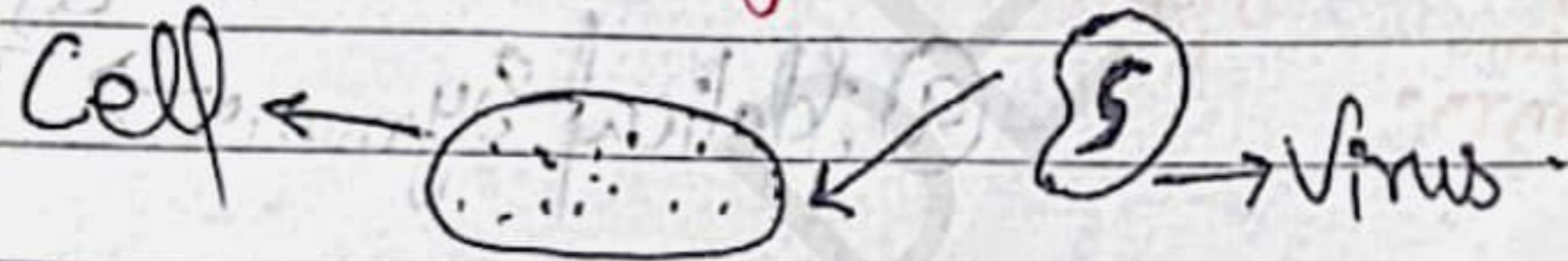


# # Classification Based on Host Cell ⇒

- ① Animal (Viruses) → RNA/DNA
- ② Plant (Viruses) → RNA
- ③ Bacteria (Viruses) → DNA

[DEPTH OF BIOLOGY]

# # Replication of Virus ⇒



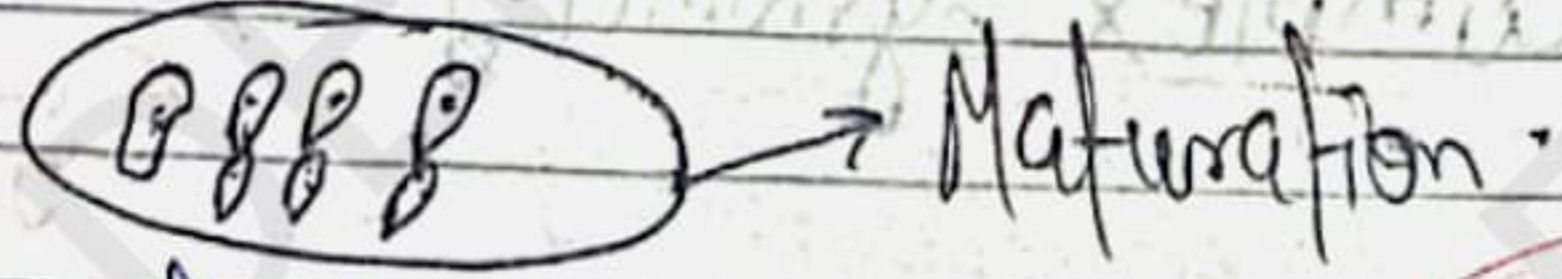
↓ attachment



↓ Penetration



↓ Biosynthesis (proper food and Virus cell)



→ Maturation

⇒ After divide, due to less space it burst & travel in our body.

[DEPTH OF BIOLOGY]

↓  
& proliferate in body.

→ Virus = Latin Word = Venem (Poison)

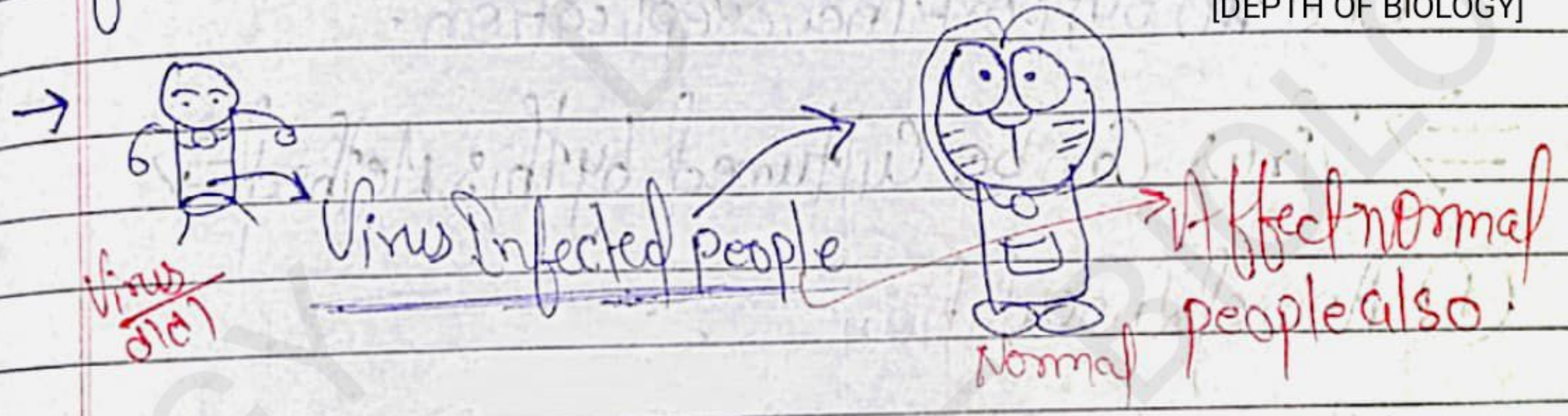
[DEPTH OF BIOLOGY]

→ Study of Virus Called Virology.

# Characteristics ⇒ Ultra Micro, belong from Parasite family, Non-Cellular.

→ When Virus Contact with Living Cell they are in active form.

[DEPTH OF BIOLOGY]



⇒ Diseases Caused by Virus

① AIDS (HAT HAT HAT)

② Hydrophobia (Rabbies dz)

fearness of water

↓  
Phepdovirus

→ Bites dog or Monkey

[DEPTH OF BIOLOGY]

③ Polio → polio Virus

# Virus Cultivation ⇒

Virus are obligate Intracellular parasite.

↳ They depend on Host for their Survival.

[DEPTH OF BIOLOGY]

↳ They cannot be grown in Non-Living Culture Media or on Agar Plate, they must req. Living Cell to support their replication.

⇒ Virus can be cultured by this Method ⇒

① Animal Inoculation → [DEPTH OF BIOLOGY]

→ Viruses sometime are cultivated in laboratory animals such as Mice, Guinea pig, Hamster, Rabbits etc.

→ These are selected animals should be free from dz. them, [DEPTH OF BIOLOGY]

Viruses can inoculated to these animals by intra-Nasal route or Intracerebral.

→ After Inoculation Virus Multiply in host & develop

disease. The animals are observed for symptoms of dz.

& death. (R.I.P).

Then the Virus Isolated & Purified from the tissue

of these animal. (R.I.P) **किसी animal से**

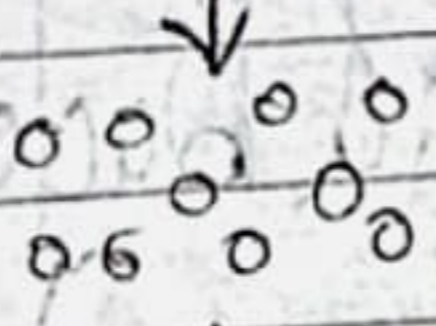
[DEPTH OF BIOLOGY]

# Isolated Virus used in **Study.**  
or  
Virus grows in Animal used in **form Antibiotics.**

## ② Cell Culture ⇒

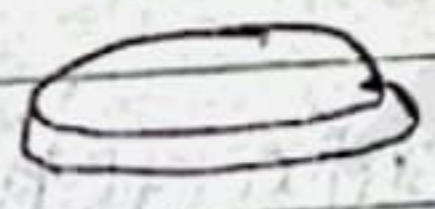
tissue

Treat with Trypsin, Collagenase.



Cells get separated.

[DEPTH OF BIOLOGY]



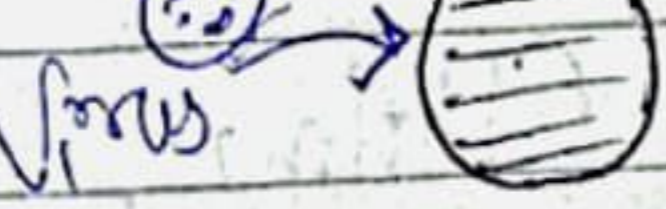
when cell introduced in Culture Media



Then cell grow & Make monolayer form at the bottom

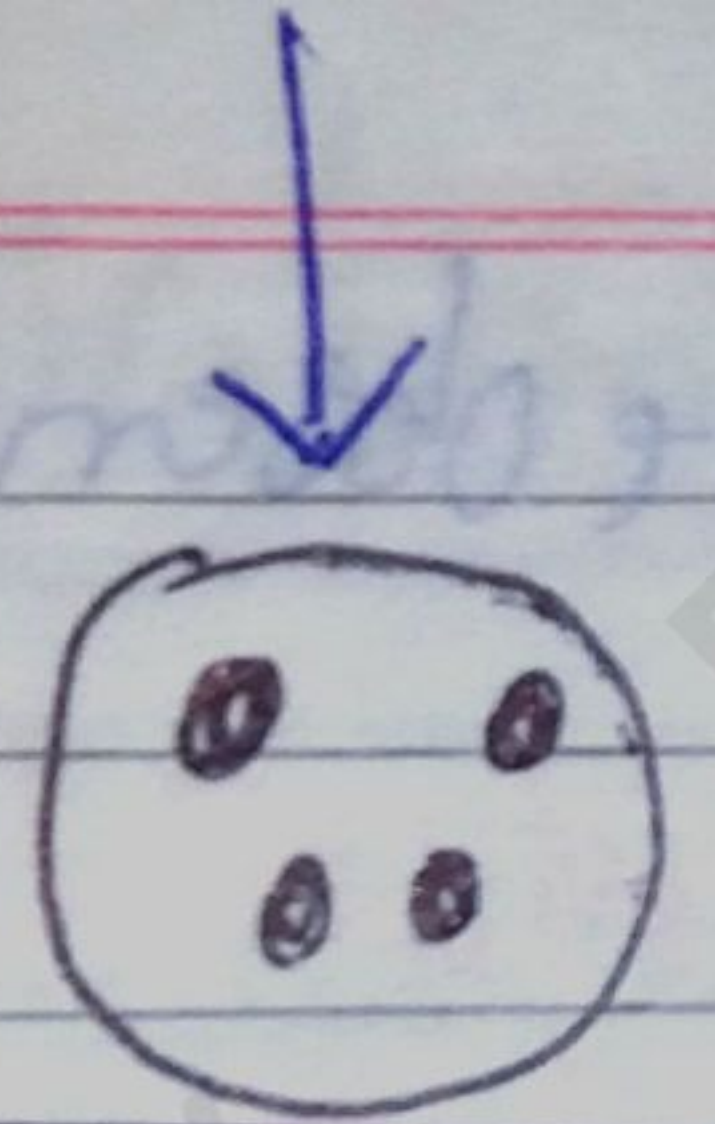


[DEPTH OF BIOLOGY]



When Virus is inoculate in this Monolayer then Virus Infect these cells

[DEPTH OF BIOLOGY]



Due to growth of Virus -

Cell will die & form plaque -