

EXERCISE # 3**GENERAL REPLICATION CYCLE OF PLANT VIRUS****VIRUS:**

Literally the word “virus” means “poison” and the same had been used for a slimy infectious like material which may be the poison or venom. Simply virus is an infectious submicroscopic entity having nucleic acid (either RNA or DNA) and protein coat. It can only be replicated inside the host cell using the host cell machinery. Virus is an obligate unique infectious parasite far different from other microorganisms because of the following characteristics:

1. They are not visible under light microscope.
2. They replicate only in living host cell.
3. They consist of nucleic acid and protein coat.

Nucleic acid contains all the genetic information while protein coat protects the delicate nucleic acid. Nucleic acid may be the single stranded or double stranded. Replication of virus is dependent on the host cell enzyme synthesis machinery. Stages for replication of plant viruses have been described by Verma (2003) as follows.

1. Adsorption
2. Entry
3. Uncoating or disassembly
4. Translation and transcription
5. Assembly or maturation
6. Transportation

SHAPES

Viruses are of different shapes such as rigid rods, flexuous/filamentous, isometric, polyhedral, twinned or geminate and bacilliform particles.

QUESTION # 1. Define a virus?

QUESTION # 2. Differentiate between animal and plant virus?

QUESTION # 3. What is the biological status of plant virus?

