
SECTION – A (Marks: 35)

1. How do plants operate transcriptional and post-transcriptional gene silencing events?
2. What is the role of virus encoded silencing suppressor proteins in virus life cycle in host plants?
Design vectors for developing virus resistant plants through (a) anti-sense RNA based tool, (b) co-suppression and (c) RNA interference tool for suppression of viral silencing suppressor.
3. What is regulatory RNA species, how do they control growth, development, various metabolic processes in plants, and correct or repair an abnormal function of a plant gene? How are these regulatory RNA best used for engineering virus resistance and delayed fruit ripening in plants?
4. Enumerate the coat protein and replicase mediated virus resistance in transgenic plants.
5. What are the basic difference between antisense and RNAi methods for suppression of genes in plants?