**Department of Botany**

**Jangipur College**

**University of Kalyani**

**Semester – II**

**List of topics for Project/Assignment for fulfilment of Internal Assessment**

Project topics for 2nd Sem **Hons. CC-T-03** paper (Diversity of Microbes and Algae):

1. Replication of Virus particles
2. Lytic and lysogenic cycle
3. RNA virus (TMV)- a brief review
4. Discovery and general characters of bacteria
5. recombination (conjugation, transformation and transduction) in bacteria
6. Economic importance of bacteria
7. Ecology and distribution of Algae
8. General characteristics of Algae
9. Range of thallus organization in different groups of algae
10. General reproduction in algae
11. life-cycles of *Nostoc*
12. life-cycles of *Chlamydomonas*
13. life-cycles of *Oedogonium*
14. life-cycles of *Vaucheria*
15. life-cycles of *Fucus*
16. life-cycles of *Polysiphonia*
17. Economic importance of algae

Project topics for 2nd Sem, **Hons. CC-T-04** (Diversity of Fungi and Plant Pathology)

1. Classification of Fungi and characters upto class level
2. Hyphal modifications in Fungi
3. Life cycle of *Neurospora* sp. and its importance in genetics and biochemistry
4. White rust of crucifer- causal organism, symptoms and disease cycle
5. Life cycle of *Synchytrium endobioticum* and its disease in plants
6. Mycorrhiza- Types and its application in agriculture
7. Lichen and its economic importance
8. Plant quarantine, classification of diseases and various symptoms
9. Types of host defense mechanisms in plants
10. Industrial and medicinal applications of fungi
11. Black stem rust of wheat
12. Ultrastructure of fungal cell and cell wall composition
13. Life cycle of *Phytophthora* and its disease in plants
14. Life cycle of *Puccinia*
15. Life cycle of *Agaricus*
16. Life cycle of *Rhizopus*
17. Life cycle of *Talaromyces (Penicillium*

Project topic for 2nd sem **GE-T-02** (Plant Ecology, Morphology and Taxonomy) :

* Identification of a local plant of Murshidabad district